Draft Environmental Impact Report

Commonwealth Building 3 Project

Prepared by:
ICF

Prepared for:
City of Menlo Park

June 2022

DRAFT ENVIRONMENTAL IMPACT REPORT

COMMONWEALTH BUILDING 3 PROJECT

PREPARED FOR:

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Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC Transit	Alameda-Contra Costa County Transit District
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	average daily traffic
AMI	average median income
APN	assessor's parcel number
ATCM	Air Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BAWSCA	Bay Area Water Supply and Conservation Agency
Bay-Delta Plan	San Francisco Bay-Delta Water Quality Control Plan
BD+C	Building Design and Construction
BMPs	best management practices
BRA	Biological Resources Assessment
C/CAG	City/County Association of Governments of San Mateo County
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
cal BP	calibrated years before present
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
California Register	California Register of Historical Resources
Campus Property	Commonwealth Corporate Center
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CAPCOA Report	Quantifying Greenhouse Gas Mitigation Measures Report
CARB	California Air Resources Board
CARE	Community Air Risk Evaluation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDP	conditional development permit
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH_4	methane

CIP	Capital Improvement Program
City	City of Menlo Park
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
ConnectMenlo	General Plan and M-2 Area Zoning Update
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DOF	Department of Finance
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
EIR	environmental impact report
EMFAC	EMission FACtor
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
EV	electric-vehicle
EVSE	electric-vehicle supply equipment
FAR	floor area ratio
federal ESA	federal Endangered Species Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
gross square foot	gsf
GVWR	gross vehicle weight rating
GWP	global warming potential
HCP	habitat conservation plan
Hetch Hetchy Project	Hetch Hetchy Water and Power Project
HFC	hydrofluorocarbon
HI	hazard index
HNA	Housing Needs Analysis
HOV	high-occupancy vehicle
HRA	health risk assessment
HUD	Housing and Urban Development
HVAC	heating, ventilation, and air-conditioning

I	Interstate
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
ITE	Institute of Transportation Engineers
kW	kilowatt
L_{dn}	day-night level
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent sound level
LID	low-impact development
L_{max}	maximum sound levels
L_{min}	minimum sound level
LOS	levels of service
LS	Life Science
LSAA	Lake and Streambed Alteration Agreement
LTS	less than significant
LTS/M	less than significant with mitigation
MBTA	Migratory Bird Treaty Act
mg	million gallons
mgd	million gallons per day
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MPFPD	Menlo Park Fire Protection District
MPMW	Menlo Park Municipal Water
MPPD	Menlo Park Police Department
MTC	Metropolitan Transportation Commission
MUTCD	Manual on Uniform Traffic Control Devices
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NCCP	natural community conservation plan
NHTSA	National Highway Traffic Safety Administration
NI	no impact
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOP	Notice of preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review

NTHSA	National Highway Traffic Safety Administration
NWIC	Northwest Information Center
NWR	National Wildlife Refuge
O	Office
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
Office-Bonus	O-B
OPR	Office of Planning and Research
PCBs	polychlorinated biphenyls
PG&E	Pacific Gas and Electric
PM10	particulate matter less than 10 microns in aerodynamic diameter
PM2.5	particulate matter less than 2.5 microns in aerodynamic diameter
pph	persons per household
PPV	peak particle velocity
PRC	Public Resources Code
Project Sponsor	The Sobrato Organization
Proposed Project	Commonwealth Building 3 Project
PS	potentially significant
R-MU	Residential Mixed-Use
R&D	research and development
RHNA	Regional Housing Needs Allocation
ROG	reactive organic gas
RPS	Renewables Portfolio Standard
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWF	recycled water facility
RWQCB	Regional Water Quality Control Board
RWS	Regional Water System
SAFE	Safer Affordable Fuel Efficient
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SDWA	Safe Drinking Water Act
SFBAAB	San Francisco Bay Area Air Basin
SFPUC	San Francisco Public Utilities Commission
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP	short-lived climate pollutants
SLF	Sacred Lands File

SO_2	sulfur dioxide
SPRR	Southern Pacific Railroad
square feet	sf
SR	State Route
SRI	Stanford Research Institute
SSC	Species of Special Concern
SU	significant and unavoidable
SVCW	Silicon Valley Clean Water
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TAZ	transportation analysis zone
TDM	Transportation Demand Management
TIA	Transportation Impact Analysis
TIF	Transportation Impact Fee
TMA	Transportation Management Association
United States Code	U.S.C.
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VdB	vibration decibel level
VMT	vehicle miles traveled
VTA	Santa Clara Valley Transportation Authority
WBSD	West Bay Sanitary District
WSA	Water Supply Assessment
WSCP	Water Shortage Consistency Plan
WSE	Water Supply Evaluation
WTP	water treatment plant
WWTP	wastewater treatment plant
ZEV	zero-emission vehicle
$\mu g/m^3$	micrograms per cubic meter

ES.1 Project Overview

The Sobrato Organization (Project Sponsor) is proposing to construct an approximately 249,500-gross-square-foot (gsf) office building, an approximately 404,000 gsf parking structure accommodating 1,340 parking spaces, and provide new landscaping and a 34,000 square feet (sf) privately owned, publicly accessible open space (referred to in this document as Jefferson Park) as part of the Commonwealth Building 3 Project (Proposed Project). The Project site is within a portion of the existing Commonwealth Corporate Center (Campus Property) at 162 and 164 Jefferson Drive, as seen in Figures 2-1 and 2-2. Two buildings (Buildings 1 and 2) of approximately 259,920 gsf combined, currently occupied by Meta (referred to by Meta as Buildings 27 and 28); surface parking accommodating 866 parking spaces; and landscaping were added to the Campus Property in 2015 as part of the Commonwealth Corporate Center Project. The Proposed Project would add a 249,500 gsf, four-story office building (Building 3); a 404,000 gsf, four-story parking structure, along with one partial level below grade, with 1,340 parking spaces; and new landscaping and a 34,000 privately owned and publicly accessible park to a portion of the Campus Property. Areas of the Campus Property outside the Project site would remain in their existing condition. The Campus Property would continue to be accessible from two driveways, the main access point at Commonwealth Drive in the southwest corner of the Campus Property and the secondary access point at Jefferson Drive in the northern portion of the Campus Property.

The Proposed Project would accommodate 1,996 additional employees on the Campus Property. Including existing employees, upon implementation of the Proposed Project, approximately 3,546 employees would work at the Campus Property. Building 3 would be north of existing Buildings 1 and 2 and oriented in an east-west direction. The main entry to Building 3 would be along the northern frontage, the side closest to Jefferson Drive. Building 3 would have four levels. Buildings 1 and 2 operate a Transportation Demand Management (TDM) program, providing information regarding services, incentives, facilities, and the actions needed to reduce the number of single-occupant vehicle trips. With implementation of the Proposed Project, Building 3 would operate the TDM program included in Appendix 3.1-2 of this EIR.

The Project Sponsor would also construct an approximately 404,000 gsf parking structure east of Buildings 2 and 3, with access provided via an internal street also east of the two buildings. The proposed parking structure would have four above-grade levels as well as one partial level below grade. The parking structure, along with the proposed building (Building 3), would replace the majority of the existing surface parking. Onsite parking would include the 191 surface parking spaces located along the perimeter of the Campus Property closest to Commonwealth Drive and 1,340 spaces in the proposed parking structure. Including Jefferson Park parking spaces, 1,554 parking spaces would be provided in total at the Campus Property. Near the proposed Jefferson Park, 23 parking spaces would be reserved for use by persons visiting the park; the Project Sponsor has offered to lease Jefferson Park to the TIDE Academy, and as yet, no agreement has been reached, for use during school hours only; thereafter, Jefferson Park and the aforementioned 23 parking spaces would be available for the general public while visiting Jefferson Park after school hours.

As noted, the Project Sponsor is also proposing to redevelop an existing surface parking lot within the Project site that fronts Jefferson Drive to create Jefferson Park, a privately owned but publicly accessible open space that would cover approximately 34,000 sf. Paseo connections from Jefferson Drive and the

Campus Property would provide access to Jefferson Park. The Project Sponsor has offered to lease Jefferson Park to the TIDE Academy located at 150 Jefferson Drive, for their use during school hours pursuant to a 99-year lease, yet no agreement has been reached. Jefferson Park would otherwise be open to the public during non-school hours.

The Proposed Project would consist of several construction phases, parts of which may occur at the same time or overlap, with the goal of being operational in the winter of 2025. Phase 1 would involve construction of the parking structure; Phase 2 would involve construction of the office building; and Phase 3 would involve the construction of Jefferson Park. It is anticipated that overall construction duration would last approximately 39 months; Phase 1 would have a duration of 25 months; Phase 2 would have a duration of 19 months; and Phase 3 would have a duration of 2 months. The office building would be approximately 69 feet in height, and the parking structure would be approximately 48 feet in height.

After Project implementation, approximately 128,533 sf of public open space and approximately 107,333 sf of private open space would be provided on the Campus Property, for a total of approximately 235,866 sf of open space. This would include a 0.2-mile-long, 20-foot-wide paseo, which would be available to bicyclists and pedestrians, along the eastern boundary of the Project site. The paseo would ultimately connect to a pedestrian path that would continue north, looping around the Project site. In addition, the Proposed Project would improve an existing publicly accessible open space at the eastern edge of the Campus Property by adding a defined plaza with seating areas and landscaping; the existing private open space would be improved in a similar fashion. Jefferson Park would include paseo connections from both Jefferson Drive and Commonwealth Drive.

The Project site is zoned Office-Bonus (O-B) under the City's General Plan, which has base- and bonus-level development regulations. The O-B zone permits a maximum and average height of 35 feet for buildings and a maximum floor area ratio (FAR) of 45 percent at the base level (plus 10 percent for commercial use). At the bonus level, the O-B zone allows a maximum height of 110 feet and a FAR of up to 100 percent (plus 25 percent for commercial use) in exchange for community amenities. The Project proposes an approximately 69-foot-tall building and 48-foot-tall parking structure, resulting in an average building height on the Campus Property of 59.9 feet.[1] The Proposed Project would require the Project Sponsor to provide community amenities in exchange for bonus-level development, which would be provided consistent with the requirements of Section 16.44.070 of the City Zoning Ordinance. The two existing buildings plus the Proposed Project would result in three office buildings being located on the Campus Property, with a combined floor area of approximately 509,420 gsf and a FAR of 88 percent.

ES.2 Regulatory Context and Background

The Project site is designated as Office on the City's General Plan Land Use Designations Map, which was updated as part of the General Plan Land Use and Circulation Elements Update (referred to herein as ConnectMenlo). The Project site is located within the Office Bonus (O-B) zoning district. The certified ConnectMenlo EIR provided a program-level analysis of the development potential envisioned for the

[1] Because the Campus Property includes two office buildings (Buildings 1 and 2), the existing and proposed office buildings are included in calculations that rely on the size of a property, such as FAR and average height. Although Building 3 would need to comply with the design standards of the O-B zoning district, Buildings 1 and 2 would not because they would remain as is and are part of the baseline conditions.

entire city, including the increased development potential in the Bayfront Area. The Land Use Element specifically identifies new development potential in the Bayfront Area of up to 2.3 million square feet of non-residential space, 400 hotel rooms, and 4,500 residential units.

This Draft EIR and the Initial Study (see Appendix 1-1) were prepared in accordance with the terms of the settlement agreement between the cities of Menlo Park and East Palo Alto, which allows simplification in accordance with CEQA Guidelines Section 15168 for all topic areas except housing and transportation. The analysis provided in this Draft EIR and the Initial Study tier from the ConnectMenlo EIR, as appropriate and as further described in each topical section. Refer to Section 1.3, *CEQA Process*, in Chapter 1, *Introduction*, for a complete description of the relevant Project background, including the ConnectMenlo EIR and settlement agreement.

ES.3 Potential Areas of Controversy

California Environmental Quality Act (CEQA) Guidelines Section 15123 specifies that the Draft Environmental Impact Report (EIR) summary identify "areas of controversy" known to the Lead Agency, including issues raised by agencies and the public.

A Notice of Preparation (NOP) was released for the Proposed Project on May 24, 2019, for a 30-day public review period. A public scoping meeting was held before the City's Planning Commission on June 3, 2019. A total of five commenters submitted written responses to the NOP, in addition to the verbal comments received at the public scoping meeting. This summary list is based on written comments received (included in Appendix 1-2 of this Draft EIR) and comments stated during the public scoping meeting. The topics that would result in physical impacts under CEQA are addressed in the EIR analysis. Potential areas of controversy include those listed below.

- **Transportation:** Evaluation of vehicle miles travel (VMT), traffic impacts on East Palo Alto intersections, circulation, and public safety and traffic; information about mitigation measures; and consideration of the TIDE Academy with respect to impacts related to vehicular traffic, school movement patterns, school pedestrians, school transportation services, trip generation and distribution, safety on the school campus, and cumulative impacts on schools.
- **Biological Resources:** Evaluation of bird collisions and information on tree planting.
- **Energy:** Explanation of energy usage (i.e., natural gas versus electricity), and consideration of an all-electric design and a design without natural gas.
- **Noise:** Identification of noise sources and noise levels that would affect the nearby school.
- **Air Quality:** Analysis of cumulative air quality impacts, analysis of localized air quality impacts associated with US 101, and analysis of nearby sensitive receptors.
- **Population and Housing:** Evaluation of the effect of adding more employees but no housing, and preparation of a housing needs assessment to analyze the cumulative effects of direct and indirect employment and displacement, increased housing demand, and the jobs/housing ratio.
- **Public Services:** Description of historical, current, and future populations, along with information regarding Project impacts on school services.
- **Aesthetics:** Description of mitigation measures to reduce impacts from light and glare.

- **Alternatives:** Evaluation of no-net-gain VMT or parking alternatives.
- **Project Description**: Consideration of the concurrent construction of housing instead of the payment of in-lieu fees, and clarification of the information regarding the existing buildings to remain at Project site under the Proposed Project.
- **Others:** Clarification regarding significant new information compared to conclusions in the ConnectMenlo EIR, development fees, existing employees versus proposed employees in the M2 area, proposed park for district use, reasoning for focused EIR, City oversight of public safety at the park and neighboring businesses, ConnectMenlo process and ConnectMenlo EIR, general noticing projects, bonus-level requirements, public engagement, and mitigation tracking and reporting.

A description of why tiering from the ConnectMenlo Final EIR is appropriate is provided throughout this EIR, including in Section ES.2, *Regulatory Context and Background*, and in the section, *CEQA Methodology*, in Chapter 3, *Environmental Impact Analysis*, as well as in each topic section of Chapter 3, and in the Initial Study (Appendix 1-1). The analyses included in the EIR and Initial Study are based on current regulatory requirements, including the current CEQA Guidelines.

Comments related to transportation are considered and addressed in Section 3.1, *Transportation*, of this EIR. Similarly, impacts related to air quality as well as population and housing are addressed in Section 3.2, *Air Quality*, and Section 3.5, *Population and Housing*, respectively, of this EIR. Comments related to noise are addressed in Section 3.4, *Noise,* of this EIR, as well as Section XIII, *Noise,* of the Initial Study (Appendix 1-1). In addition, comments related to biological resources are addressed in Section 3.8*, Biological Resources,* of this EIR, as well as Section IV, *Biological Resources,* of the Initial Study. Chapter 2*, Project Description,* and Chapter 4, *Other CEQA Considerations,* of this EIR address energy comments. Comments related to aesthetics, and public services are addressed in Section I, *Aesthetics*; and Section XV*, Public Services*, of the Initial Study (Appendix 1-1). Alternatives suggested by the commenters are considered in Chapter 5, *Alternatives*, of this EIR.

ES.4 Impacts and Mitigation Measures

Table ES-1 presents a summary of the impacts of the Proposed Project, proposed mitigation measures, and each impact's level of significance after mitigation. The environmental impacts are identified and classified as "Significant," "Potentially Significant," "Less than Significant," or "No Impact." According to State CEQA Guidelines Section 15382, a significant impact is "… a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project…" State CEQA Guidelines Section 15126.4(a)(1) also states that an EIR "… shall describe feasible mitigation measures which could minimize significant adverse impacts…" Mitigation measures are identified for all impacts labeled as "Potentially Significant."

ES.4.1 Findings of the Initial Study

The Initial Study for the Proposed Project is included in Appendix 1-1 of this EIR. The Initial Study identified: (1) no impacts; (2) less than significant impacts; or (3) less than significant impacts with implementation of mitigation measures identified in the ConnectMenlo Final EIR related to the following environmental issues.

- Aesthetics
- Agricultural and Forestry Resources
- Biological Resources (riparian habitat or other sensitive natural communities, wetlands, conflicts with local policies, or conflicts with habitat conservation plans and natural community conservation plans)
- Cultural Resources (historical resources)
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise (ground-borne noise and vibration levels, airports)
- Public Services
- Recreation
- Utilities and Service Systems (solid waste)

The Proposed Project would be required to comply with all applicable mitigation measures identified in the ConnectMenlo Mitigation Monitoring and Reporting Program (MMRP), which is an existing enforceable MMRP prepared for the ConnectMenlo Final EIR and a requirement of any proposed development project in the City. Applicable mitigation measures identified in the Initial Study are provided in Table ES-1 at the end of this chapter. For a complete description of potential impacts identified in the Initial Study, please refer to the specific discussion within each topic section of the Initial Study (Appendix 1-1). Chapter 4.0, *Other CEQA Conclusions*, also includes a summary of the findings for each topic not discussed in the EIR.

The Initial Study identified potential impacts requiring more detailed evaluation related to the following environmental issues, which are further evaluated in Chapter 3.0, of this EIR:

- Transportation
- Air Quality
- Greenhous Gas Emissions
- Noise
- Population and Housing
- Utilities and Service Systems
- Cultural and Tribal Cultural Resources
- Biological Resources

ES.4.2 Significant Impacts

Under CEQA, a significant impact on the environment is defined as "… a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." As discussed in more detail in this EIR, impacts related to population and housing and utilities and service systems would be less than significant and no mitigation measures would be required.

Furthermore, impacts for the following environmental resources would be potentially significant without the implementation of mitigation measures, but would be reduced to a less than significant level with implementation of the mitigation measures included in this EIR:

- Transportation (VMT)
- Air Quality (Conflicts with Applicable Air Quality Plan, Criteria Pollutants, Sensitive and Receptors)
- Greenhouse Gas Emissions (Conflicts with Applicable Plans and Polices)
- Noise (Substantial Temporary or Permanent Increase in Noise)
- Cultural Resources and Tribal Cultural Resources (Archaeological Resources, Human Remains, and Tribal Cultural Resources)
- Biological Resources (Special-Status Species and Native Wildlife Nesting Sites)

ES.4.3 Significant and Unavoidable Impacts

The Proposed Project would not result in any significant and unavoidable impacts. All potentially significant impacts would either be less than significant or would be reduced to a less than significant level with implementation of identified mitigation measures as discussed throughout Chapter 3 of this EIR.

ES.4.4 Cumulative Impacts

CEQA defines cumulative impacts as "two or more individual effects, which when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the CEQA Guidelines required that an EIR evaluate potential environmental impacts that are individually limited, but cumulatively significant. These impacts can result from the Proposed Project when combined with past, present, or reasonably foreseeable future projects. As described in Chapter 3 of this EIR, the cumulative impacts analysis in this EIR is based on information provided by the City on currently planned, approved, or projects and regional projections for the area. All identified impacts of the Proposed Project would be individually limited and would not be cumulatively considerable. Cumulative impacts would be less than significant.

ES.5 Project Alternatives

In accordance with CEQA and the CEQA Guidelines, specifically Section 15126.6, an EIR must describe a reasonable range of alternatives to the project, or to the location of the project, that could attain most of the project's basic objectives, while avoiding or substantially lessening any of the significantly adverse environmental effects of the project. the range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. CEQA states that an EIR should not consider alternatives "whose effects cannot be ascertained and whose implementation is remote and speculative."

The three alternatives to the Proposed Project are discussed and analyzed in Chapter 5, *Alternatives*, of this EIR are:

- **No Project Alternative**. The No Project Alternative is provided in this EIR to compare the impacts of the Proposed Project with what would be reasonably expected to occur in the foreseeable future if the Proposed Project were not approved and development continued to occur in accordance with existing plans and consistent with available infrastructure and community services (CEQA Guidelines Section 15126.6 (e)(2)).
- **Reduced Project Size Alternative**. The Reduced Project Size Alternative assumes that the Project would be developed as proposed but with approximately 20 percent less office space for a total building size of approximately 199,600 sf and a parking structure of approximately 326,000 sf.
- **Research and Development Use Alternative**. The Research and Development Use Alternative would develop the Project site with the same 249,500 sf building but with research and development space rather than office space.

Each alternative is compared to the Proposed Project and discussed in terms of its various mitigating or adverse effects on the environment. Analysis of the alternatives focuses on those topics for which significant adverse impacts would result from the Proposed Project and on policy considerations designed to provide information regarding reduced size and research and development uses. The Research and Development Use Alternative is considered to be the environmentally superior alternative. However, this alternative would not fully achieve some of the Project objectives, including the objective of providing high quality office space.

ES.6 Draft EIR Conclusions

In accordance with State CEQA Guidelines Section 15123(b)(3), this summary section must identify issues to be resolved, including whether or how to mitigate the significant effects and the choice among alternatives. Chapter 3 of the Draft EIR, *Environmental Impact Analysis*, presents mitigation measures to reduce or avoid significant impacts identified for the Proposed Project. A Mitigation Monitoring and Reporting Program (MMRP) will be prepared to define the timing of implementation of the measures, the parties who will be responsible for implementation, and the parties who will be responsible for reporting and verifying implementation.

As stated above, the Proposed Project would not result in any significant and unavoidable impacts. All potentially significant project impacts would either be less than significant or would be reduced to a less than significant level with implementation of identified mitigation measures as discussed throughout Chapter 3 of this EIR and Initial Study (Appendix 1-1).

ES.7 How to Comment on This Draft EIR

This Draft EIR is considered a draft under CEQA because it must be reviewed and commented upon by public agencies, organizations, and individuals before being finalized. This document is being distributed for a 45-day (minimum) public review and comment period. Readers are invited to submit written comments on the document. Comments are most helpful when they suggest specific alternatives or measures that would better mitigate significant environmental effects. Hard copies of the Draft EIR are

available for review at the Menlo Park Library located at 800 Alma Street. Electronic copies of the Draft EIR are available for review online at: https://beta.menlopark.org/Government/Departments/Community-Development/Projects/Under-review/Commonwealth-Building-3.

Written comments should be submitted to:

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701 Laurel Street
Menlo Park, CA 94025
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To take oral comments on the Draft EIR, a public hearing will be held before the Planning Commission. Hearing notices will be mailed to responsible agencies and interested individuals.

ES.8 Summary Tables

Information in Table ES-1, *Summary of Impacts and Mitigation Measures from the Initial Study*, summarizes the recommended mitigation measures from the ConnectMenlo Final EIR as they relate to each environmental topic in the Initial Study. Table ES-2, *Summary of Impacts and Mitigation Measures from the EIR*, has been organized to correspond with environmental issues discussed in Chapter 3. Tables ES-1 and ES-2 are arranged in four columns: (1) impacts; (2) level of significant without mitigation; (3) mitigation measures; and (4) level of significant with mitigation. Levels of significant are categorized as follows:

LTS	Less than Significant
PS	Potentially Significant
LTS/M	Less than Significant with Mitigation
SU	Significant and Unavoidable

For a complete description of potential impacts and recommended mitigation measures, please refer to the specific topic discussion in Chapter 3 and the Initial Study (Appendix 1-1).

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
I. Aesthetics			
The Proposed Project would not have a substantial adverse effect on a scenic vista.	NI	None required	NI
The Proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	NI	None required	NI
The Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings.	LTS	None required	LTS
The Proposed Project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.	LTS	None required	LTS
II. Agricultural and Forestry Resources			
The Proposed Project would not 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 nonagricultural use.	NI	None required	NI
The Proposed Project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract.	NI	None required	NI

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
The Proposed Project would not conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220 (g)), timberland (as defined by Public Resources Code 4256), or timberland zoned Timberland Production (as defined by Public Resources Code Section 51104(g)).	NI	None required	NI
The Proposed Project would not result in the loss of forestland or conversion of forestland to non-forest use.	NI	None required	NI
The Proposed Project would not involve changes in the existing environment that, because of their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use.	NI	None required	NI
IV. Biological Resources			
The Proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	NI	None required	NI
The Proposed Project would not have a substantial adverse effect on federally protected wetlands, including, but not limited to, marshes, vernal pools, coastal wetlands, through direct removal, filling, hydrological interruption, or other means.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
The Proposed Project would not conflict with any local policies or ordinance protecting biological resources, such as a tree preservation policy or ordinance.	LTS	None required	LTS
The Proposed Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	NI	None required	NI
V. Cultural Resources			
The Proposed Project would not cause a substantial adverse change in the significance of a historical resources, pursuant to Section 15064.5.	NI	None required	NI
VI. Energy			
The Proposed Project would result in a potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction and operation.	LTS	None required	LTS
The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
VII. Geology and Soils			
The Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:		Not a CEQA Impact	
1) 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.			
2) Strong seismic ground shaking.		Not a CEQA Impact	
3) Seismically related ground failure, including liquefaction.	LTS	None required	LTS
4) Landslides.	NI	None required	NI
The Proposed Project would not result in substantial soil erosion or the loss of topsoil.	LTS	None required	LTS
The Proposed Project would not be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.	LTS	None required	LTS
The Proposed Project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
The Proposed Project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.	NI	None required	NI
The Proposed Project would not directly or indirectly destroy a paleontological resource or site or unique geologic feature.	LTS	None required	LTS
IX. Hazards and Hazardous Materials			
The Proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	None required	LTS
The Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	LTS	None required	LTS
The Proposed Project would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	LTS	None required	LTS
The Proposed Project would not be located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	NI	None required	NI

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
The Proposed Project would not be 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, result in a safety hazard or excessive noise for people residing or working in the project area.	NI	None required	NI
The Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	None required	LTS
The Proposed Project would not expose people or structure, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fire.	NI	None required	NI
X. Hydrology and Water Quality			
The Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality.	LTS	None required	LTS
The Proposed Project would not substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS	None required	LTS
The Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would result in substantial erosion or siltation onsite or offsite.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
The Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite.	LTS	None required	LTS
The Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	LTS	None required	LTS
The Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would impede or redirect floodflows.	LTS	None required	LTS
The Proposed Project would not be in a flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation.	LTS	None required	LTS
The Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
XI. Land Use and Planning			
The Proposed Project would not physically divide an established community.	LTS	None required	LTS
The Proposed Project would not 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.	LTS	None required	LTS
XII. Mineral Resources			
The Proposed Project would not 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.	NI	None required	NI
The Proposed Project would not result in the loss of availability of a locally important mineral resource recovery site, as delineated in a local general plan, specific plan, or other land use plan.	NI	None required	NI
XIII. Noise			
The Proposed Project would not generate excessive ground-borne vibration or ground-borne noise levels.	LTS	None required	LTS
The Proposed Project would not be located in the vicinity of a private airstrip or an airport land use plan area, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working the project area to excessive noise levels.	NI	None required	NI

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
XV. Public Services			
The Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services: (a) Fire Protection	LTS	None required	LTS
(b) Police Protection	LTS	None required	LTS
(c) Schools	LTS	None required	LTS
(d) Parks	LTS	None required	LTS
(e) Libraries	LTS	None required	LTS
XVI. Recreation			
The Proposed Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of a facility would occur or be accelerated.	LTS	None required	LTS
The Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
XIX. Utilities and Service Systems			
The Proposed Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	LTS	None required	LTS
The Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste.	LTS	None required	LTS

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.1 Transportation			
TRA-1. The Proposed Project would not conflict with an applicable plan, ordinance, or policy, including the congestion management program, concerning all components of the circulation system.	LTS	None required	LTS
TRA-2. The Proposed Project could exceed an applicable VMT threshold of significance.	PS	*Project Mitigation Measure TRA-1.1:* The Project Sponsor shall implement TDM measures set forth in the TDM Plan included in Appendix 3.1-2 of this EIR to reduce VMT generated by the Proposed Project to achieve a minimum 24.6 percent reduction in VMT. The TDM plan would need to achieve a 24.6 percent reduction in VMT per employee, which exceeds the 20 percent reduction in VMT required by the Zoning Ordinance.[2] The Proposed Project's TDM plan is designed to achieve an estimated reduction of approximately 36.4 percent VMT per employee. Annual monitoring and reporting as required pursuant to Menlo Park Municipal Code Section 16.44.090 (2)(B) will be required to ensure a minimum of a 24.6 percent reduction in VMT is achieved for the life of the Project.	LTS/M
TRA-3. The Proposed Project would not substantially increase hazards due to a design feature or incompatible uses.	LTS	None required	LTS
TRA-4. The Proposed Project would not result in inadequate emergency access.	LTS	None required	LTS

[2] Implementation of the TDM plan would replace a minimum of 20 percent of the project-generated vehicle trips by increasing walking, cycling, transit use, and telecommuting. However, due to limitations in research and data, the effect of this mode shift on VMT cannot be calculated. Therefore, the analysis assumes the reduction in VMT would be equivalent to the reduction in vehicle trips. In other words, the average vehicle trip length would not change.

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

3.2 Air Quality			
AQ-1. The Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan.	PS	*Project Mitigation Measure AQ-1.1. Use Clean Diesel-powered Equipment During Construction to Control Construction-Related Emissions:* The Project Sponsor shall require its contractors to ensure that all off-road diesel-powered equipment greater than 50shorsepower used during construction is equipped with EPA-approved Tier 4 Final engines to reduce NO_X and DPM. The construction contractor will submit evidence of the use of EPA-approved Tier 4 Final engines, or cleaner, to the City prior to the commencement of Project construction activities.	LTS/M
AQ-2. The Proposed Project would not result in a cumulative net increase in any criteria pollutant for which the Project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard.	PS	*ConnectMenlo Mitigation Measure AQ-2b1. Comply with the Bay Area Air Quality Management District's Basic Control Measures for Reducing Construction Emissions:* Prior to building permit issuance, the City shall require applicants for all development projects in the city to comply with the current Bay Area Air Quality Management District's (BAAQMD) basic control measures for reducing construction emissions of PM10 (Table 8-1, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of the BAAQMD CEQA Guidelines).[3] *ConnectMenlo Mitigation Measure AQ-2b2:* Prior to issuance of building permits, development project applicants that are subject to CEQA and exceed the screening sizes in BAAQMD's CEQA Guidelines shall prepare and submit to the City of Menlo Park a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with the BAAQMD methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in the BAAQMD CEQA Guidelines, the City of Menlo Park shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below the thresholds (e.g., Table 8-2, Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions above the Threshold of the BAAQMD CEQA Guidelines, or applicable construction mitigation	LTS/M

[3] Table 8-1 includes measures that require construction equipment or vehicle idling times to be minimized (Measure 6) and for construction equipment to be maintained and properly tuned (Measure 7). Measure 6 and 7 would help reduce on-site GHG emissions from construction equipment and vehicles.

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

		measures subsequently approved by BAAQMD). These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Building Division and/or Planning Division.	
AQ-3. The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.	PS	Implement *Project Mitigation Measure AQ-1.1*, above.	LTS/M
AQ-4. The Proposed Project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.	LTS	None required	LTS
3.3 Greenhouse Gas Emissions			
GHG-1. Construction of the Proposed Project would generate GHG emissions but would not have a significant impact on the environment.	LTS	None required	LTS
GHG-2. The level of GHG emissions associated with operation of the Proposed Project would not have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	PS	Implement *Project Mitigation Measure TRA-1.1*, above.	LTS/M
3.4 Noise			
NOI-1. The Proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	PS	*Modified ConnectMenlo Mitigation Measures NOISE-1c: Construction Noise Reduction.* Project applicants shall minimize the exposure of nearby properties to excessive noise levels from construction-related activity through CEQA review, conditions of approval, and/or enforcement of the City's Noise Ordinance. Prior to issuance of demolition, grading, and/or building permits for development projects, a note shall be provided on development plans, indicating that during ongoing grading, demolition, and construction, the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise:	LTS/M

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

		• All internal-combustion engines on construction equipment and trucks shall be fitted with properly maintained mufflers, air intake silencers, and/or engine shrouds that are no less effective than those originally equipped by the manufacturer. • Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses. • Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors. • Unnecessary engine idling shall be limited to the extent feasible. • The use of public address systems shall be limited. • Construction traffic shall be limited to the haul routes established by the City. *Project Mitigation Measure NOI-1.1: Implement Noise Control Plan to Reduce Construction Noise during Non-Exempt Construction Hours.* The Project Sponsor shall develop a noise control plan for construction at the Project site. The plan shall require compliance with Section 8.06 of the Menlo Park Municipal Code and include measures to ensure compliance with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. and the 50 dBA L_{eq} limit during the hours of 6:00 a.m. to 7:00 a.m. In addition, the plan shall include measures to ensure that construction noise will not result in a 10 dB increase over the ambient noise level at nearby sensitive receptors (i.e., Tide Academy). The plan shall provide that no construction activities shall occur during nighttime hours of 10:00 p.m. to 7:00 a.m., daily; furthermore, no construction activities shall occur on Saturdays, other than between the hours of 8:00 a.m. to 5:00 p.m., or at any time on Sundays or any holiday as defined at Section 8.06.020 (7) of the Noise Ordinance. The plan shall specify the noise-reducing construction practices that will be employed to reduce noise from construction activities in Menlo Park, and shall demonstrate that compliance with these standards will be achievable. The measures specified by the Project Sponsor shall be reviewed and approved by the City prior to issuance of building permits. Measures to reduce noise may include, but are not limited to, the following:	

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

		• The noise control plan shall demonstrate that noise levels during construction on the Project site will meet the standards of this mitigation measure at sensitive receptors while those receptors are in use. • The noise control plan shall demonstrate that any construction activities taking place outside of normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday shall comply with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. and the 50 dBA L_{eq} limit during the hours of 6:00 a.m. to 7:00 a.m. In addition, the plan shall demonstrate that individual equipment proposed for use would not exceed the 85 dBA L_{eq} at 50 feet limit for powered equipment noise, and that combined construction noise would not result in a 10 dBA increase over the ambient noise level at nearby sensitive receptors. Activities that would produce noise above applicable daytime or nighttime limits shall be scheduled only during normal construction hours. • The contractor shall ensure that construction equipment will be equipped with mufflers. In addition, construction equipment must use the best available noise control techniques (e.g., improved mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields, shrouds) on equipment and trucks used for Project construction. • All construction activities shall be conducted only at an adequate distance, or otherwise shielded with sound barriers, as determined in the noise control plan, from noise-sensitive receptors when working outside the normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday to ensure compliance with the Menlo Park Municipal Code and this mitigation measure. • Stationary noise sources, such as temporary generators, shall be located at an adequate distance, or otherwise shielded with sound barriers, as determined in the noise control plan, from sensitive receptors to ensure compliance with the Menlo Park Municipal Code and this mitigation measure. Stationary noise sources shall be muffled and placed within temporary enclosures or shielded by barriers or other measures.	

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

- Temporary noise barriers (height to be determined) shall be installed around construction on the Project site to reduce construction noise from equipment used outside the normal construction hours of 8:00 a.m. to 6:00 p.m. on weekdays. The installation of barriers would help reduce overall construction noise to less than 50 dBA L_{eq} for work occurring between 6:00 a.m. and 7:00 a.m. and 60 dBA L_{eq} for work occurring between 7:00 a.m. and 8:00 a.m., as measured at the applicable property lines of the adjacent uses, and such that a 10 dB increase over ambient would not occur at nearby sensitive land uses. However, confirmation of the noise reduction would be required (per the last bullet of this measure, below). If the Project Sponsor can demonstrate, through an acoustical analysis, that construction noise would not exceed the allowable limits during non-exempt hours, as measured at the applicable property lines of the adjacent uses without barriers, then temporary noise barriers shall not be required.
- Trucks shall be prohibited from idling along streets serving the construction site.
- Radios or other forms of amplified music shall be prohibited on the construction site.
- The effectiveness of noise attenuation measures shall be monitored by taking noise measurements during construction activities to ensure compliance with the 50 and 60 dBA L_{eq} standards, which apply outside the normal daytime construction hours in Menlo Park of 8:00 a.m. and 6:00 p.m. Monday through Friday.
- The effectiveness of noise attenuation measures shall be monitored by taking noise measurements at nearby noise-sensitive land uses during construction to ensure compliance with the threshold (i.e., 10 dB over ambient).

ConnectMenlo Mitigation Measures NOISE-1b: Stationary Noise Sources. Stationary noise sources, as well as landscaping and maintenance activities citywide, shall comply with Chapter 8.06, Noise, of the Menlo Park Municipal Code.

Project Mitigation Measure NOI-2.1: Mechanical Equipment Noise Reduction Plan. To reduce potential noise impacts resulting from Project rooftop heating, cooling, and ventilation equipment, emergency generators and other mechanical equipment, the Project Sponsor shall conduct a noise analysis to estimate the noise

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

	from Project-specific mechanical equipment, based on the selected equipment models and design features, and create a Noise Reduction Plan to ensure that the noise levels from roof-mounted equipment, once installed, are below the applicable criterion of 50 dBA L_{eq} at 50 feet in the city, and that noise levels from the emergency generator (during testing) are below the city's allowable noise level of 60 dBA L_{eq} threshold during daytime hours and 50 dBA L_{eq} threshold during nighttime hours, and the 85 dBA limit at 50 feet for powered equipment used on a temporary, occasional, or infrequent basis. The analysis shall demonstrate that potential noise levels resulting from Project mechanical equipment can be reduced to less-than-significant levels, and the Noise Reduction Plan shall be created to implement the required noise reduction measures. Feasible methods to reduce noise below the significance threshold include, but are not limited to, selecting quieter equipment, utilizing silencers and acoustical equipment at vent openings, siting equipment farther from the roofline, and/or enclosing all equipment in a mechanical equipment room designed to reduce noise. This analysis shall be conducted by, and the results and final Noise Reduction Plan shall be provided to, the City prior to the issuance of building permits. The analysis and plan shall be prepared by persons qualified in acoustical analysis and/or engineering and demonstrate with reasonable certainty that the rooftop mechanical equipment selected for the Project, including the attenuation features incorporated into the Project design, will not result in noise levels in excess of 50 dBA L_{eq} at a distance of 50 feet. In addition, the analysis and plan shall demonstrate that noise from the testing of the emergency generator will not result in noise levels in excess of 60 dBA L_{eq} during daytime hours and 50 dBA L_{eq} during nighttime hours, or 85 dBA at a distance of 50 feet. The Project Sponsor shall incorporate all methods necessary to reduce the noise identified above, as well as any other feasible recommendations from the acoustical analysis and Noise Reduction Plan, into building designs and operations to ensure that noise sources meet the applicable requirements of the respective noise ordinances at receiving properties.	

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

3.5 Population and Housing			
POP-1. The Proposed Project would not induce substantial population growth indirectly through job growth, nor would projected growth result in adverse direct impacts on the physical environment.	LTS	None required	LTS
POP-2. The Proposed Project would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere.	LTS	None required	LTS
3.6 Utilities and Service Systems			
UT-1. The Proposed Project would not require or result in the relocation of existing or construction of new or expanded water or wastewater treatment facilities.	LTS	None required	LTS
UT-2. Sufficient water supplies would be available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	None required	LTS
UT-3. The Proposed Project would not result in a determination by the wastewater treatment providers that they have inadequate capacity to serve the Proposed Project's projected demand in addition to the provider's existing commitments.	LTS	None required	LTS
3.7 Cultural Resources and Tribal Cultural Resources			
CR-1. The Proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	PS	*ConnectMenlo Mitigation Measures CULT-2a: Stop Work if Archaeological Material or Features are Encountered During Ground-Disturbing Activities.* If a potentially significant subsurface cultural resource is encountered during ground-disturbing activities on any parcel in the city, all construction activities within a 100-foot radius of the find shall cease until a qualified archeologist determines whether the resource requires further study. All developers in the study area shall include a standard inadvertent discovery clause in every construction contract to	LTS/M

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

		inform contractors of this requirement. Any previously undiscovered resources found during construction activities shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of the CEQA criteria by a qualified archeologist. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan to capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analyses; prepare a comprehensive report complete with methods, results, and recommendations; and provide for the permanent curation of the recovered resources. The report shall be submitted to the City of Menlo Park, Northwest Information Center (NWIC), and State Historic Preservation Office (SHPO), if required. *Project Mitigation Measure CR-1.1: Worker Environmental Training.* Because of the potential for the discovery of unknown buried cultural and paleontological resources, prior to commencement of the first phase, the general contractor and those engaged in ground-disturbing activities shall be given environmental training regarding cultural and paleontological resource protection, resource identification and protection, and the laws and penalties governing such protection. This training may be administered by the Project archaeologist and/or paleontologist as stand-alone training or included as part of the overall environmental awareness training required as a result of the Proposed Project. The training shall include, at minimum, the following: • The types of cultural resources that are likely to be encountered, • The procedures to be taken in the event of an inadvertent cultural resource discovery, • The penalties for disturbing or destroying cultural resources, • The types of fossils that could occur at the Project site, • The types of lithologies in which the fossils could be preserved, and • The procedures that should be taken in the event of a fossil discovery.	

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

	Project Mitigation Measure CR-1.2: Perform Construction Monitoring, Evaluate Uncovered Archaeological Features, and Mitigate Potential Disturbance for Identified Significant Resources at the Project Site. Prior to demolition, excavation, grading, or other construction-related activities on the Project site, the Project Sponsor shall hire a qualified professional archaeologist (i.e., one who meets the Secretary of the Interior's professional qualifications for archaeology or one under the supervision of such a professional) to monitor, to the extent determined necessary by the archaeologist, Project-related earth-disturbing activities (e.g., grading, excavation, trenching). In the event that prehistoric or historic-period subsurface archaeological features or deposits, including locally darkened soil (midden), that could conceal cultural deposits, animal bone, obsidian, and/or mortars are discovered during demolition/construction-related earthmoving activities, ConnectMenlo CULT-2a shall be followed. In addition, if the resource is a historic-era archaeological site or historic-era architectural feature and the archaeologist is not a historical archaeologist, the archaeologist shall notify a historical archaeologist or architectural historian who meets the Secretary of the Interior's professional qualifications for archaeology and/or architectural history and that person shall follow the requirements of ConnectMenlo CULT-2a. Impacts on significant resources would be mitigated to a less-than-significant level through preservation in place, capping, data recovery, or other methods determined adequate by the City that are consistent with the Secretary of the Interior's Standards for archaeological documentation. If Native American archaeological, ethnographic, or spiritual resources are discovered, all identification and treatment of the resources shall be conducted by a qualified archaeologist. A tribal monitor chosen by the Native American tribes that requested consultation pursuant to AB 52 will be invited to participate. If a tribal monitor is present, all identification and treatment conducted by the archaeologist will be done in consultation with the tribal monitor. In the event the archaeologist and tribal monitor disagree regarding treatment after good-faith consultation, the City shall make the final decision, considering the provisions of Public Resources Code Section 21084.3(b).	

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

CR-2. The Proposed Project would not disturb human remains, including those interred outside of formal cemeteries.	PS	Implement *ConnectMenlo Mitigation Measure CULT-2a and Project Mitigation Measures CR-1.1 and CR-1.2*, above. *ConnectMenlo Mitigation Measures CULT-4, Comply with State Regulations Regarding the Discovery of Human Remains at the Project site*. Procedures regarding conduct following the discovery of human remains citywide have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98, and California Code of Regulations Section 15064.5(e) (CEQA). According to the provisions in CEQA, if human remains are encountered at a site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. Furthermore, the San Mateo County Coroner shall be notified immediately. The coroner shall then determine whether the remains are Native American. If the coroner determines the remains are Native American, the coroner shall notify the NAHC within 24 hours, which, in turn, will notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD will have 48 hours to make recommendations regarding disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.	LTS/M
CR-3. The Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and: a) Listed or eligible for listing in the California Register or local register of historical resources, as defined in Public Resources Code Section 5020.1(k), or	PS	Implement *ConnectMenlo Mitigation Measure CULT-2a and CULT-4 and Project Mitigation Measure CR-1.1 and CR-1.2*, above.	LTS/M

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

b) A resource determined by the lead agency, in its discretion and support by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5034.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.			
3.8 Biological Resources			
BIO-1. The Proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on a species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	PS	*Project Mitigation Measure BR-1: Nesting Bird Avoidance.* To the extent feasible, construction activities (or at least the commencement of such activities) shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code shall be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31. *Project Mitigation Measure BR-2: Preconstruction/Pre-disturbance Surveys.* If it is not possible to schedule construction activities between September 1 and January 31, preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than 7 days prior to the initiation of construction activities. During this survey, the ornithologist shall inspect all trees and other potential nesting substrates (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. *Project Mitigation Measure BR-3: Active Nest Buffers.* If an active nest is found close to work areas that are to be disturbed by construction activities, the qualified ornithologist shall determine the extent of the construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species) to ensure that no nests of species that are protected by the MBTA and California Fish and Game Code are disturbed during project implementation.	LTS/M

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

		Project Mitigation Measure BR-4: Inhibition of Nesting. If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, other vegetation) that are scheduled to be removed by the project shall be removed prior to the start of the nesting season (i.e., before February 1). This will preclude the initiation of nests in such vegetation and prevent potential delay of the Project because of the presence of active nests in these substrates.	
BIO-2. The removal of ornamental trees would not affect the nesting habitat of native resident and migratory birds and tree-nesting raptors.	PS	Implement *Project Mitigation Measure BR-1 through BR-4*, above.	LTS/M

Chapter 1
Introduction

1.1 Purpose of This Environmental Impact Report

This environmental impact report (EIR) for the Commonwealth Building 3 Project (Proposed Project) has been prepared by the City of Menlo Park (City), the lead agency, in conformance with the provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines, as amended. The lead agency is the public agency that has principal responsibility for carrying out or approving a project.

This EIR assesses potentially significant environmental impacts that could result from the Proposed Project. As stated in the CEQA Guidelines, an EIR is an "informational document" that is intended to inform public agency decision-makers and the public of the potentially significant environmental effects of a project, identify possible ways to avoid or substantially lessen the significant effects, and describe reasonable alternatives to a project. The purpose of this EIR is to provide the City, responsible and trustee agencies, other public agencies, and the public with detailed information about the environmental effects that could result from implementing the Proposed Project; examine and institute methods for mitigating any adverse environmental impacts, should the Proposed Project be approved; and consider feasible alternatives to the Proposed Project, including the required No-Project Alternative. The City will use the EIR, along with information in the public record, to determine whether to approve, modify, or deny the Proposed Project or specify environmental conditions or mitigation measures as part of approval.

1.2 Project Overview

The Sobrato Organization (Project Sponsor) is proposing to redevelop a portion of the existing Commonwealth Corporate Center (Campus Property) at 162 and 164 Jefferson Drive. Figure 1-1 shows the location of the Campus Property. Two buildings (Buildings 1 and 2), currently occupied by Meta, formerly known as Facebook, (referred to by Meta as Buildings 27 and 28); surface parking; and landscaping were added to the Campus Property in 2015 as part of the Commonwealth Corporate Center Project. The Project Sponsor is proposing to add an office building (Building 3) and four-story parking structure, with one partial level below grade, as well as new landscaping and a privately owned, publicly accessible open space (referred to in this document as Jefferson Park) within a portion of the Campus Property (Proposed Project). See Figure 2-2, Proposed Site Plan. The portion of the Campus Property where the Proposed Project would be located is referred to as the Project site and shown in Figure 1-1. Areas of the Campus Property outside the Project site would remain in their existing condition.

The Project Sponsor is proposing to construct an approximately 249,500-gross-square-foot (gsf) office building (Building 3) that would accommodate approximately 1,996 employees. Including existing employees, upon implementation of the Proposed Project, approximately 3,546 employees would work at the Campus Property. Building 3 would be north of existing Buildings 1 and 2 and oriented in an approximately east–west direction. The main entry to Building 3 would be along the northern frontage, the side closest to Jefferson Drive. Building 3 would have four levels. In addition, the Proposed Project would include a Transportation Demand Management (TDM) program applicable to the proposed building to promote alternatives to private automotive travel, with the goal of reducing the number of single-occupancy vehicle trips as well as the resulting traffic and greenhouse gas emissions.

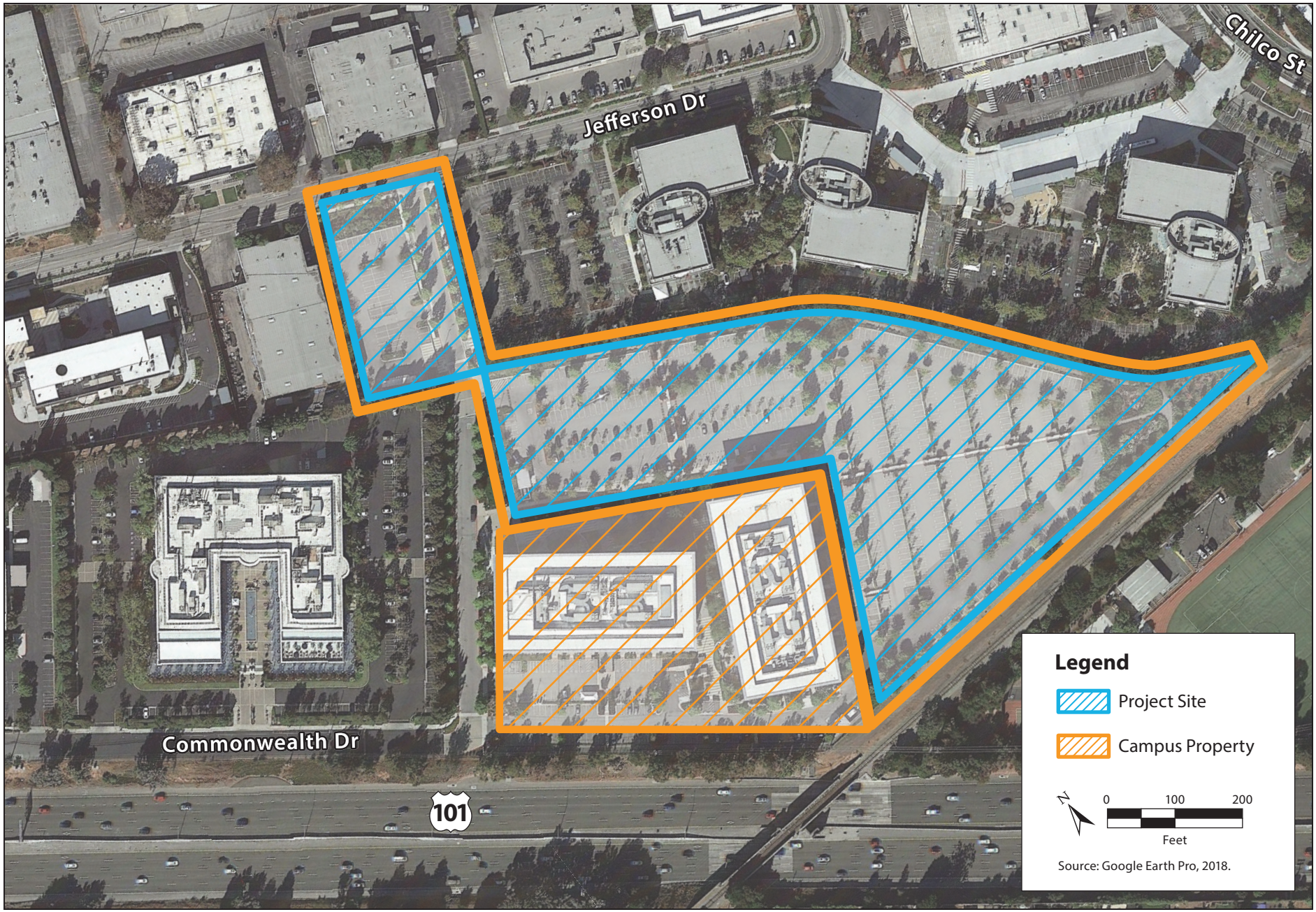

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Figure 1-1
Campus Property and Project Site
Commonwealth Building 3

The Project Sponsor is also proposing to construct an approximately 404,000 gsf parking structure east of Buildings 2 and 3, with access provided via internal drive aisles to two (2) entry/exit points on the northerly and southerly sides of the parking structure. The proposed parking structure would have four above-grade levels as well as one partial level below grade. The parking structure, along with Building 3, would replace the majority of the existing surface parking.

The Project Sponsor is also proposing to redevelop an existing surface parking lot within the Project site that fronts Jefferson Drive to create Jefferson Park, a privately owned but publicly accessible open space that would cover approximately 34,000 square feet (sf). Paseo connections from Jefferson Drive and the Campus Property would provide access to Jefferson Park. The Project Sponsor has offered to lease Jefferson Park to the TIDE Academy, located at 150 Jefferson Drive, for its use during school hours, pursuant to a 99-year lease; as yet, no agreement has been reached. If an agreement is reached with Tide Academy, Jefferson Park would be open to the public during non-school hours.

The Proposed Project would consist of several construction phases, parts of which may occur at the same time or overlap, with the goal of being operational in the winter of 2025. Phase 1 would involve construction of the parking structure, Phase 2 would involve construction of the office building, and Phase 3 would involve construction of Jefferson Park. It is anticipated that overall construction would last approximately 39 months. Phase 1 would have a duration of 25 months, Phase 2 would have a duration of 19 months, and Phase 3 would have a duration of 2 months. The parking structure would provide approximately 1,340 parking spaces for the office building. The office building would be approximately 69 feet in height, and the parking structure would be approximately 48 feet in height.

After Project implementation, approximately 128,533 sf of public open space and approximately 107,333 sf of private open space would be provided on the Campus Property, for a total of approximately 235,866 sf of open space. This would include a 0.2-mile-long, 20-foot-wide paseo, which would be available to bicyclists and pedestrians, along the eastern boundary of the Project site. The paseo would ultimately connect to a pedestrian path that would continue north, looping around the Project site. In addition, the Proposed Project would improve an existing publicly accessible open space at the eastern edge of the Campus Property by adding a defined plaza with seating areas and landscaping; the existing private open space would be improved in a similar fashion. Jefferson Park would include paseo connections from both Jefferson Drive and Commonwealth Drive.

The Project site is zoned Office-Bonus (O-B), which has base- and bonus-level development regulations. The O-B zone permits a maximum and average height of 35 feet for buildings and a maximum floor area ratio (FAR) of 45 percent at the base level (plus 10 percent for commercial use). At the bonus level, the O-B zone allows a maximum height of 110 feet and a FAR of up to 100 percent (plus 25 percent for commercial use) in exchange for community amenities. The Project proposes an approximately 69-foot-tall building and 48-foot-tall parking structure, resulting in an average building height on the Campus Property of 59.9 feet.[1] The Proposed Project would require the Project Sponsor to provide community amenities in exchange for bonus-level development, which would be provided consistent with the requirements of Section 16.44.070 of the City Zoning Ordinance. To satisfy the Project's community amenity requirements, the Project Sponsor has elected to pay the in-lieu fee. The two existing buildings plus the Proposed Project would result in three office buildings being located on the Campus Property,

[1] Because the Campus Property includes two office buildings (Buildings 1 and 2), the existing and proposed office buildings are included in calculations that rely on the size of a property, such as FAR and average height. Although Building 3 would need to comply with the design standards of the O-B zoning district, Buildings 1 and 2 would not because they would remain as is. Buildings 1 and 2 are part of the baseline conditions.

with a combined floor area of approximately 509,420 gsf and a FAR of 88 percent. Furthermore, the Campus Property would have 1,531 parking spaces. This total does not include the additional 23 parking stalls provided for Jefferson Park. A conditional development permit (CDP) amendment would be incorporated as part of the Proposed Project to ensure that the proposed Building 3 and parking structure would be in compliance with O-B zoning regulations and applicable mitigation measures.

The O-B zone permits a maximum of three spaces per 1,000 gsf or a maximum of 1,736 parking spaces for the Proposed Project. The Proposed Project includes 665 net new parking spaces (2.7 spaces per 1,000 gsf) which is below the maximum requirement.

1.3 CEQA Process

ConnectMenlo EIR

The Project site is within the General Plan and M-2 Area Zoning Update (ConnectMenlo) study area. ConnectMenlo, which updated the City's General Plan Land Use and Circulation Elements and rezoned land in the M-2 area, now referred to as the Bayfront Area, was approved on November 29, 2016. It serves as the City's comprehensive and long-range guide to land use and infrastructure development. ConnectMenlo's Land Use Element identifies an allowable increase in net new development potential of up to 2.3 million gsf for non-residential uses, up to 4,500 residential units, and up to 400 hotel rooms in the Bayfront Area.

Because a general plan is a long-range planning document, the ConnectMenlo EIR[2] was prepared as a program EIR, pursuant to CEQA Guidelines Section 15168. Once a program EIR has been certified, subsequent activities within the program must be evaluated to determine whether additional CEQA review is needed. However, if the program EIR addresses a program's potentially significant impacts, subsequent activities can be found to be within the program EIR's scope, and additional environmental review may not be required, unless one of the thresholds for subsequent environmental review is met (CEQA Guidelines Section 15168[c]). When a program EIR is relied on for subsequent activities, the lead agency must incorporate the feasible mitigation measures from the program EIR into subsequent activities as well as the alternatives developed in the program EIR (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects that were not examined in the program EIR, the lead agency must prepare a new Initial Study, leading to a negative declaration, a mitigated negative declaration, or an EIR (CEQA Guidelines Section 15168[c][1]). Because the Proposed Project's location and development parameters are consistent with ConnectMenlo, the ConnectMenlo program EIR serves as the environmental analysis for some of the effects of the Proposed Project (e.g., is incorporated by reference, pursuant to Sections 15150, 15130, and 15168).

Section 15168(d) of the CEQA Guidelines provides guidance for simplifying the preparation of environmental documents by incorporating by reference analyses and discussions. When an EIR has been prepared or certified for a program or plan, the environmental review for a later activity, consistent with the program or plan, should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]). By tiering from the ConnectMenlo EIR, the environmental analysis for the Proposed Project relies on the ConnectMenlo EIR for the following:

[2] The ConnectMenlo EIR can be found online at https://www.menlopark.org/1013/Environmental-Impact-Report.

- A discussion of general background and setting information for the environmental topic areas,
- Overall growth-related issues,
- Issues that were evaluated in detail in the ConnectMenlo EIR for which there is no significant new information or change in circumstances that would require further analysis,
- An assessment of cumulative impacts, and
- Incorporation of mitigation measures adopted by the ConnectMenlo EIR.

On December 29, 2016, the City of East Palo Alto filed suit to challenge certification of the ConnectMenlo Final EIR. The City of East Palo Alto alleged that the City of Menlo Park did not comply with CEQA because the EIR underestimated the amount of new employment and failed to analyze adequately the traffic impacts that would result from development under ConnectMenlo. To resolve the litigation, the City of Menlo Park and the City of East Palo Alto entered into a settlement agreement. The key terms of the settlement agreement are as follows:

- *Reciprocal Environmental Review for Future Development Projects*. Menlo Park will prepare an EIR for any project located in an Office (O), Life Science (LS), or Residential Mixed-Use (R-MU) district that exceeds 250,000 net new square feet and requires a use permit, that proposes bonus-level development, that proposes a master plan project, or that may have a significant environmental impact. Menlo Park may, with the exception of housing and traffic, which were the focus of East Palo Alto's challenge, simplify the environmental review for future development projects by incorporating analysis and discussions from the ConnectMenlo Final EIR, pursuant to CEQA Guidelines Section 15168(d). East Palo Alto will prepare an Initial Study for future development projects to determine the appropriate level of environmental review and conduct that review, which can be simplified by incorporating by reference analysis and discussions from its general plan, referred to as Vista 2035.
- *Reciprocal Traffic Studies*. Menlo Park and East Palo Alto will work together to ensure that future development projects' potentially significant traffic impacts on the other jurisdiction are analyzed and mitigated.[3]
- *Reciprocal Study of Multiplier Effect*. When the preparation of an EIR is required, as described above, Menlo Park or East Palo Alto, as applicable, will conduct a housing needs assessment, which, to the extent possible, will include an analysis of the multiplier effect for indirect and induced employment.[4]

Pursuant to the settlement agreement for the 2017 *City of East Palo Alto v. City of Menlo Park* case, certain topics have been identified as needing further environmental review. This EIR and the Initial Study (Appendix 1) were prepared in accordance with the terms of the settlement agreement, which allows simplification, in accordance with CEQA Guidelines Section 15168, for all topic areas, except housing and transportation, and incorporates by reference the information contained in the ConnectMenlo Final EIR, as applicable. Per CEQA Guidelines Section 15168, later activities occurring under a program EIR may be

[3] Although intersection level-of-service impacts are no longer considered environmental impacts under CEQA, a transportation impact assessment has been conducted for the Proposed Project (Appendix 3.1). The EIR uses vehicle miles traveled as the threshold of significance. An intersection level-of-service analysis has been provided for informational purposes in the transportation impact assessment (Appendix 3.1).

[4] Nothing in the settlement agreement was intended to suggest that analysis of the multiplier effect for indirect and induced employment is required by CEQA. A housing needs assessment has been prepared for the Proposed Project (Appendix 3.5).

examined in light of the program EIR and tier from the program EIR, as provided for in CEQA Guidelines Section 15152. Per CEQA Guidelines Section 15152, "where an EIR has been prepared and certified for a program […] consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program […] should limit the EIR […] on the later project to effects that:

1) Were not examined as significant effects on the environment in the prior EIR, or
2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means."

The analysis provided in this EIR and the Initial Study tier from the ConnectMenlo Final EIR, as appropriate and further described in each topical section.

The Proposed Project would be required to comply with all applicable mitigation measures identified in the ConnectMenlo Mitigation Monitoring and Reporting Program (MMRP), which is an existing and enforceable MMRP prepared for the ConnectMenlo Final EIR and a requirement of any proposed development project in the city. Applicable mitigation measures identified in the Initial Study are provided in Table ES-1 of the *Executive Summary*. For a complete description of potential impacts identified in the Initial Study, please refer to the specific discussion within each topical section of the Initial Study (Appendix 1-1).

Proposed Project EIR Scope

As explained in more detail in the section below, the City circulated a Notice of Preparation (NOP) to notify responsible agencies and interested parties that an EIR would be prepared for the Proposed Project and indicate the environmental topics that are anticipated to be addressed in the EIR. An Initial Study was circulated with the NOP. After a review of the preliminary analysis provided in the Initial Study (see Appendix 1-1), consultation with City staff members, and a review of the comments received during the scoping process, it was determined that the following environmental topics would be addressed in Chapter 3, *Environmental Impact Analysis*, of this EIR:

- Section 3.1, Transportation
- Section 3.2, Air Quality
- Section 3.3, Greenhouse Gas Emissions
- Section 3.4, Noise (except ground-borne noise and vibration levels, airports)
- Section 3.5, Population and Housing
- Section 3.6, Utilities and Service Systems (except solid waste)
- Section 3.7, Cultural Resources (except historical resources) and Tribal Cultural Resources
- Section 3.8, Biological Resources (except riparian habitat or other sensitive natural communities, wetlands, conflicts with local policies, or conflicts with habitat conservation plans and natural community conservation plans)

It was determined in the Initial Study that the potential environmental effects of the Proposed Project would have a less-than-significant impact or no impact on the following topics, which are, therefore, not studied in detail in this EIR: aesthetics, agricultural and forestry resources, cultural resources (historic resources), geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise (ground-borne noise and vibration levels, airports), public services, recreation, and utilities and service systems (solid waste). Each of these topic areas is addressed in the Initial Study (see Appendix 1-1). In addition, although the Initial Study indicated that development of the Proposed Project would not result in significant impacts related to biological resources, the City has provided additional analysis related to special-status species and wildlife nursery sites, which is included in Section 3.8 of this EIR.

Notice of Preparation

The NOP was released for the Proposed Project on May 24, 2019, for a 30-day public review period. A public scoping meeting was held on June 3, 2019, before the Planning Commission. The NOP noted that the Proposed Project may have a significant effect on the environment and that an EIR would be prepared for the Proposed Project. A copy of the NOP is provided in Appendix 1-2 of this EIR.

The NOP was sent to individuals, local interest groups, adjacent property owners, and responsible and trustee state and local agencies that have jurisdiction over or interest in environmental resources and/or conditions in the vicinity of the Project site. The purpose of the NOP was to allow various private and public entities to transmit their concerns and comments on the scope and content of the EIR, thereby providing specific information related to each individual's or group's interest or agency's statutory responsibility early in the environmental review process.

In response to the NOP, letters were received from the following agencies:

- City of East Palo Alto
- Sequoia Union High School District

In addition to the letters received above, one letter was received from an organization and two letters were received from individuals; a member of the public, as well as Planning Commissioners, made oral comments at the Planning Commission hearing. Copies of the NOP comment letters and transcriptions of the comments recorded at the Planning Commission hearing are included in Appendix 1-2 of this EIR.

With respect to CEQA and the Proposed Project, comments in response to the NOP generally identified the following areas of potential concern:

- **Transportation:** Evaluation of vehicle miles travel (VMT), traffic impacts on East Palo Alto intersections, circulation, and public safety and traffic; information about mitigation measures; and consideration of the TIDE Academy with respect to impacts related to vehicular traffic, school movement patterns, school pedestrians, school transportation services, trip generation and distribution, safety on the school campus, and cumulative impacts on schools.
- **Biological Resources:** Evaluation of bird collisions and information on tree planting.
- **Energy:** Explanation of energy usage (i.e., natural gas versus electricity), and consideration of an all-electric design and a design without natural gas.
- **Noise:** Identification of noise sources and noise levels that would affect the nearby school.
- **Air Quality:** Analysis of cumulative air quality impacts, analysis of localized air quality impacts associated with US 101, and analysis of nearby sensitive receptors.
- **Population and Housing:** Evaluation of the effect of adding more employees but no housing, and preparation of a housing needs assessment to analyze the cumulative effects of direct and indirect employment and displacement, increased housing demand, and the jobs/housing ratio.
- **Public Services:** Description of historical, current, and future populations, along with information regarding Project impacts on school services.
- **Aesthetics:** Description of mitigation measures to reduce impacts from light and glare.
- **Alternatives:** Evaluation of no-net-gain VMT or parking alternatives.

- **Project Description**: Consideration of the concurrent construction of housing instead of the payment of in-lieu fees, and clarification of the information regarding the existing buildings to remain at Project site under the Proposed Project.
- **Others:** Clarification regarding significant new information compared to conclusions in the ConnectMenlo EIR, development fees, existing employees versus proposed employees in the M2 area, proposed park for district use, reasoning for focused EIR, City oversight of public safety at the park and neighboring businesses, ConnectMenlo process and ConnectMenlo EIR, general noticing projects, bonus-level requirements, public engagement, and mitigation tracking and reporting.

Comments related to transportation are considered and addressed in Section 3.1, *Transportation* of this EIR. Similarly, impacts related to air quality as well as population and housing are addressed in Section 3.2, *Air Quality,* and Section 3.5, *Population and Housing*, respectively, of this EIR. Comments related to noise are addressed in Section 3.4, *Noise,* of this EIR as well as Section XIII, *Noise,* of the Initial Study (Appendix 1-1). Chapter 2*, Project Description,* and Chapter 4, *Other CEQA Considerations,* of this EIR address energy comments. Comments related to aesthetics and public services are addressed in Section I, *Aesthetics,* and Section XV*, Public Services,* of the Initial Study (Appendix 1-1). Comments related biological resources are addressed in Section IV, *Biological Resources,* of the Initial Study (Appendix 1-1) and Section 3.8, *Biological Resources,* of this EIR. Alternatives suggested by the commenters are considered in Chapter 5, *Alternatives*, of this EIR.

Draft EIR

Impact Analysis

This EIR analyzes significant effects that could result from the Proposed Project. As explained in Section 15002(g) of the CEQA Guidelines, a significant effect on the environment is defined as a substantial adverse change in the physical conditions that exist in the area affected by a project. Pre-project environmental conditions (the environmental baseline) are considered in determining impact significance. The impact significance thresholds for each environmental resource area presented in this EIR are based on CEQA Guidelines Appendix G, *Environmental Checklist Form*. In addition, this EIR uses City-adopted significance criteria for traffic impacts. When significant impacts are identified, the EIR recommends feasible mitigation measures to reduce, eliminate, or avoid significant impacts and identifies which significant impacts are unavoidable despite mitigation.

As discussed in Chapter 3, *Environmental Impact Analysis*, cumulative impacts, which are two or more individual effects that, when considered together, compound or increase other related environmental impacts, are discussed for each environmental resource area. The methodology for assessing cumulative impacts varies by topic; however, CEQA requires cumulative impacts to be analyzed with use of either a list of past, present, and probable future projects with related or cumulative impacts in addition to the project being analyzed in the document or a summary of the projections contained in an adopted local, regional, or statewide plan or related planning document, such as a general plan, that describes or evaluates the conditions that contributed to the cumulative effect. This document discusses feasible alternatives to the Proposed Project in Chapter 5, *Alternatives*.

In accordance with Section 15143 of the CEQA Guidelines, this EIR provides an analysis of the potentially significant effects on the environment that could result from construction and operation of the Proposed Project. Section 15131 of the CEQA Guidelines specifies that "the intermediate economic or social changes

need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes." Therefore, this EIR does not treat economic or social effects of the Proposed Project that lack physical effects as significant impacts on the environment. In addition, if it is determined that a potential impact is too speculative for evaluation, this condition is noted, and further discussion of the impact is not necessary under CEQA.

Public Review

This EIR is considered a draft under CEQA because it must be reviewed and commented upon by public agencies, organizations, and individuals before being finalized. This document is being distributed for a 45-day (minimum) public review and comment period. Readers are invited to submit written comments on the document. Comments are most helpful when they suggest specific alternatives or measures that would better mitigate significant environmental effects or raise specific questions about details in the EIR. Hard copies of the EIR are available for review at the Menlo Park Library located at 800 Alma Street. In addition, electronic copies of the EIR are available for review online at the following: https://beta.menlopark.org/Government/Departments/Community-Development/Projects/Under-review/Commonwealth-Building-3.

Written comments should be submitted to:

Payal Bhagat, Contract Planner
City of Menlo Park
Community Development Department, Planning Division
701 Laurel Street
Menlo Park, CA 94025
Email: pbhagat@menlopark.org and kperata@menlopark.org

Oral comments on the EIR will be received at a public hearing before the Planning Commission. Hearing notices will be mailed to responsible agencies and interested individuals.

Final EIR and Project Approval

Following the close of the public review period, the City will prepare responses to all substantive comments that relate to potential physical changes to the environment. The EIR, along with the responses to the written and oral substantive comments received during the review period, will make up the final EIR, which will be considered by the Planning Commission before it decides to certify the final EIR and approve or deny the Proposed Project.

Certification of the final EIR by the Planning Commission as complete and adequate, in conformance with CEQA, does not grant any land use approvals or entitlements to the Proposed Project. The merits of the Proposed Project will be considered by the Planning Commission in tandem with review of the final EIR. For significant and unavoidable impacts that cannot be substantially mitigated, the CEQA Guidelines require the lead agency to prepare a statement of overriding considerations that balances the social, economic, technological, and legal benefits of approving a project against the significant and unavoidable environmental impacts that would result from project implementation. If significant and unavoidable impacts are identified, the City Council must approve the statement of overriding considerations in order for a project to be approved.

1.4 Report Organization

The EIR is organized into the following sections:

- *Executive Summary*: Provides a summary of the Proposed Project, as well as impacts that would result from its implementation, and describes the mitigation measures recommended to reduce, eliminate, or avoid significant impacts. In addition, the Executive Summary discusses alternatives to the Proposed Project.
- *Chapter 1, Introduction*: Discusses the overall purpose of the EIR, provides a summary of the Proposed Project and the CEQA process, and summarizes the organization of the EIR.
- *Chapter 2, Project Description*: Provides a description of the Project site, site development, Project objectives, the required approval process, and Project characteristics.
- *Chapter 3, Environmental Impact Analysis*: Describes the following for each technical environmental topic: existing conditions (setting), applicable regulations adopted by the City and other agencies, summary of ConnectMenlo Final EIR impacts and required mitigation measures, potential environmental impacts of the Proposed Project and their level of significance, and the mitigation measures recommended to reduce or avoid identified potential impacts. Potential cumulative impacts are also addressed in each topical section. Potential adverse impacts are identified by levels of significance, as follows: less than significant (LTS), potentially significant (PS), less than significant with mitigation (LTS/M), and significant and unavoidable (SU). The significance of each potential impact is categorized before and after implementation of any recommended mitigation measure(s).
- *Chapter 4, Other CEQA Considerations*: Provides specific required analyses of the Project's effects, significant irreversible changes, cumulative impacts, and effects that were found not to be significant, including Initial Study findings.
- *Chapter 5, Alternatives*: Evaluates alternatives to the Project, in addition to the No-Project Alternative.
- *Chapter 6, List of Preparers:* Lists the people who prepared the EIR for the Proposed Project.

Chapter 2
Project Description

The Sobrato Organization (Project Sponsor) is proposing to construct an approximately 249,500-gross-square-foot (gsf) office building and an approximately 404,000 gsf parking structure and provide new landscaping and a privately owned, publicly accessible open space (referred to in this document as Jefferson Park) as part of the Commonwealth Building 3 Project (Proposed Project). The Project site is within a portion of the existing Commonwealth Corporate Center (Campus Property) at 162 and 164 Jefferson Drive, as seen in Figures 2-1 and 2-2, below. Two buildings (Buildings 1 and 2), currently occupied by Meta, formerly known as Facebook, (referred to by Meta as Buildings 27 and 28); surface parking; and landscaping were added to the Campus Property in 2015 as part of the Commonwealth Corporate Center Project. The Proposed Project would add a four-story office building (Building 3); a four-story parking structure, along with one partial level below grade, with 1,340 parking spaces; and new landscaping and a park to a portion of the Campus Property. Areas of the Campus Property outside the Project site would remain in their existing condition. The Campus Property would continue to be accessible from two driveways, the main access point at Commonwealth Drive in the southwest corner of the Campus Property and the secondary access point at Jefferson Drive in the northern portion of the Campus Property.

The Project site is within the City of Menlo Park (City) General Plan and M-2 Area Zoning Update (ConnectMenlo) study area. In accordance with the requirements outlined in Section 15168 of the California Environmental Quality Act (CEQA) Guidelines, this focused environmental impact report (EIR) discusses resource areas that, with implementation of the Proposed Project, may not be within the scope of the certified programmatic ConnectMenlo EIR and therefore require additional analysis. According to the Initial Study, the resource areas that require additional analysis are air quality, cultural resources (except historical resources), greenhouse gas emissions, noise (except ground-borne vibration or noise, airports), population/housing, transportation, tribal cultural resources, and utility/service systems (except solid waste). In addition, although the Initial Study indicated that development of the Proposed Project would not result in significant impacts related to biological resources, the City has added additional analysis related to special-status species and wildlife nursery sites, which is included in this EIR.

Project Location, Setting, and Background

The Project site, which is north of US 101 in Menlo Park, is bounded by Jefferson Drive and office buildings to the north, the currently inactive Dumbarton Rail Corridor to the southeast, a portion of the Campus Property to the south, and an office building to the west (as shown in Figure 2-1).[1] On the south side of the Dumbarton Rail Corridor is Kelly Park. Farther north, beyond the Project site, is State Route (SR) 84, tidal mudflats and marshes along San Francisco Bay, the Don Edwards San Francisco Bay National Wildlife Refuge, and Ravenswood Slough. Neighborhoods in East Palo Alto are approximately one mile southeast of the Project site; the Belle Haven neighborhood of Menlo Park is south of the Project site, across the Dumbarton Rail Corridor. The Belle Haven neighborhood contains a mix of uses, including churches, Menlo Park Fire Station No. 77, single-family residences, multi-family residential units, and institutional

[1] For the purposes of this analysis, true northeast is Project north; US 101 runs in an east–west direction.

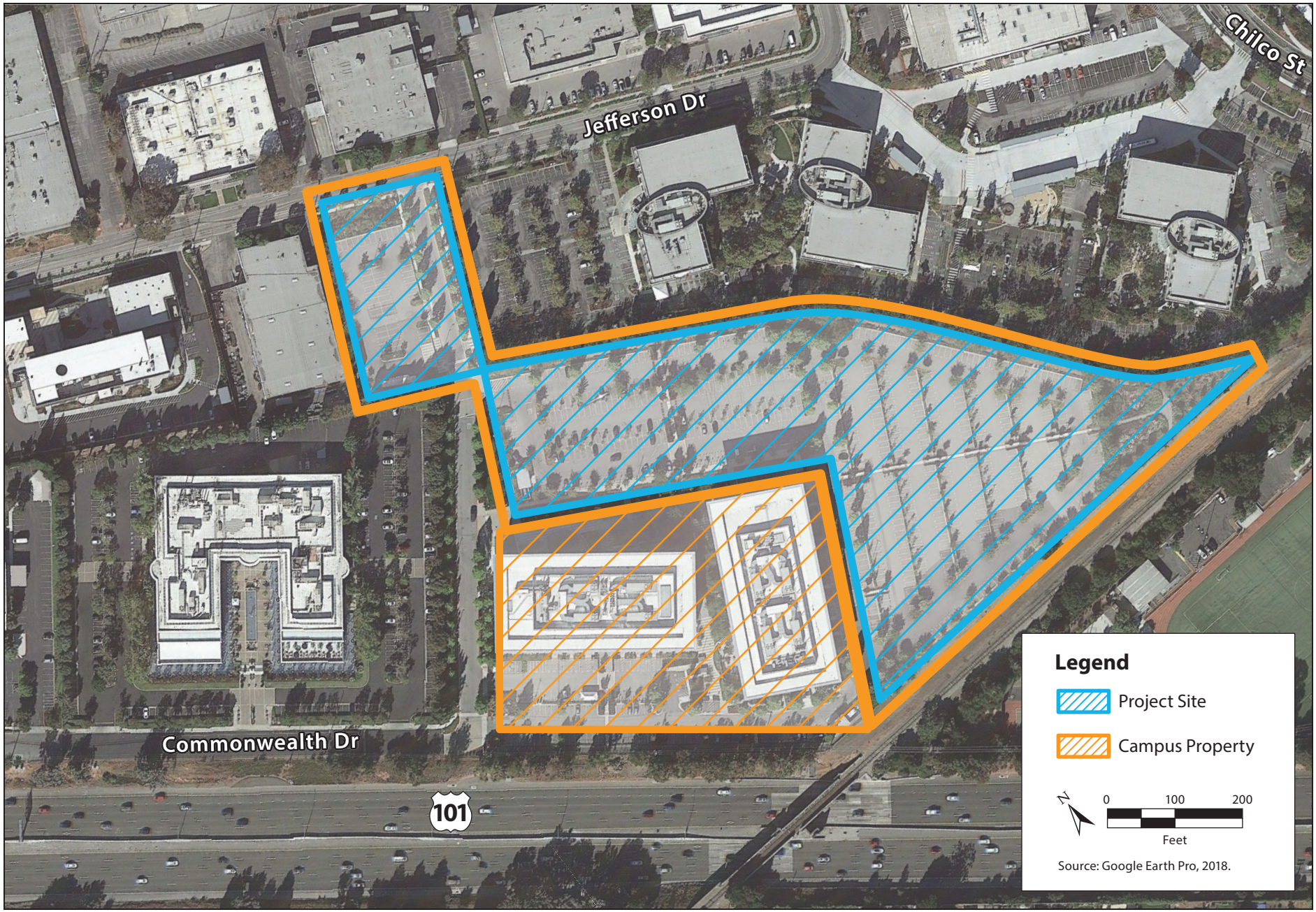

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Figure 2-1
Campus Property and Project Site
Commonwealth Building 3

Source: ArcTec 2021.

SCALE: 1"=40'-0"
0 20 40 80

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Figure 2-2
Proposed Site Plan
Commonwealth Building 3

buildings. The Belle Haven neighborhood's institutional and park uses include Beechwood School, Belle Haven Elementary School, the Boys and Girls Club, Hamilton Park, Karl E. Clark Park, the Belle Haven Community Garden, and Kelly Park. The City Council has approved a project to redevelop the former Onetta Harris Community Center and Menlo Park Senior Center as a new multi-generational facility, which would incorporate the Onetta Harris Community Center, Menlo Park Senior Center, Belle Haven Youth Center (for child care), Belle Haven Pool, and a branch library. Construction is currently under way.

Regional highways that provide access to the Project site include US 101, directly to the south, and SR 84 to the north. The Menlo Park Caltrain station is approximately two miles south of the Project site, providing weekday service from San Francisco to Gilroy and weekend service from San Francisco to San José.

Existing Campus Property Conditions

The Commonwealth Corporate Center, the current development on the Campus Property, covers approximately 13.3 acres (578,500 square feet [sf]). The existing floor area ratio (FAR) at the Campus Property is 45 percent. Approximately 866 parking spaces are provided in surface lots. New and mature trees are scattered throughout the Campus Property. Based on a standard load factor, it is estimated that approximately 1,550 employees worked at the Commonwealth Corporate Center in 2019, prior to start of the COVID-19 pandemic.

The Campus Property (as shown in Figure 2-1), consisting of assessor's parcel numbers (APNs) 055-243-300, 055-243-310, and 055-243-999, is improved with two four-story office buildings (Buildings 1 and 2). Each building is approximately 67 feet tall, with an area of approximately 129,960 gsf and a footprint of approximately 34,540 gsf. Together, the two buildings have a total floor area of approximately 259,920 gsf. Buildings 1 and 2 are surrounded by surface parking, landscaping, and pedestrian paths. A courtyard with café tables and chairs is located between the two buildings; a bocce court and courtyards are north of Building 2. The Campus Property is accessible from Commonwealth Drive and Jefferson Drive via a private access road that connects the two streets. The Campus Property, which is relatively flat, lies at an elevation of 6.6 to 11.9 feet above mean sea level, with the southern portion of the Campus Property being slightly higher than the northern portion.

Existing Transit Service and Transportation Demand Management Program

The Campus Property is currently served by the M3-Marsh Road Shuttle, a free service with connections to many of the a.m. and p.m. peak-hour trains, both northbound and southbound, at the Menlo Park Caltrain station. The shuttle service includes a stop at 149 Commonwealth Drive, less than 100 feet from the Campus Property.

Buildings 1 and 2 operate a Transportation Demand Management (TDM) program, providing information regarding services, incentives, facilities, and the actions needed to reduce the number of single-occupant vehicle trips. No changes to the existing TDM program for Buildings 1 and 2 are proposed. With implementation of the Proposed Project, Building 3 would operate the TDM program included in Appendix 3.1-2 of this EIR.

Zoning History

The Campus Property was zoned M-2(X), General Industrial, when Buildings 1 and 2 were constructed in 2015. The M-2(X) zoning permitted office and industrial uses such as warehouses, manufacturing plants, print shops, and assembly lines with a maximum building height of 35 feet; heights in excess of 35 feet

could be permitted with a conditional development permit (CDP). The Campus Property is covered by a CDP that permits heights of up to 68 feet. Buildings 1 and 2 conform to the requirements of the Campus Property's CDP.

In 2016, the Campus Property's zoning was changed to Office-Bonus (O-B) as part of ConnectMenlo. The updated zoning created three new zoning districts: Office, Residential-Mixed Use, and Life Sciences. It also established standards for new projects. These included restrictions regarding use, height, density (i.e., a FAR of up to 45 percent for office uses), sustainability, circulation, and open space. Under the new zoning standards, bonus density is permitted (i.e., a FAR of up to 100 percent for office uses with increased height) in exchange for the provision of community amenities selected from a list of potential options that were identified through community outreach and adopted by resolution of the Menlo Park City Council. The list may be updated from time to time by the City Council.

Project Characteristics

Land Use and Zoning

As discussed above, the Project site is zoned O-B, which is consistent with its "Office" land use designation from the City General Plan. The O-B zone has base and bonus development regulations. Bonus-level regulations are available to projects that provide community amenities. The O-B zone permits a maximum and an average height of 35 feet for buildings and a maximum FAR of 45 percent at the base level (plus 10 percent for commercial use). At the bonus level, the O-B zone allows a maximum height of 110 feet and a FAR of up to 100 percent (plus 25 percent for commercial use) in exchange for community amenities.

The Project proposes an approximately 69-foot-tall office building and a 48-foot-tall parking structure. When the heights of existing Buildings 1 and 2 are included, with each approximately 67 feet tall, the average building height on the Campus Property is 59.9 feet. The Proposed Project would require the Project Sponsor to provide community amenities in exchange for bonus-level development. These benefits would be selected from a list of potential options that were identified through community outreach and adopted by resolution of the Menlo Park City Council. The list may be updated from time to time by the City Council. Section 16.43.070 (4)(B) of the Menlo Park Municipal Code states that an applicant for bonus development may elect to pay 110 percent of the value of the community amenity to be provided. To satisfy the Project's community amenity obligations, the Project Sponsor has elected to pay the in-lieu fee.

The existing buildings plus the Proposed Project would result in three office buildings being located on the Campus Property, with a combined gross floor area of approximately 509,420 gsf and a FAR of 88 percent. Furthermore, the Campus Property would have 1,531 parking spaces. This total does not include the additional 23 parking stalls provided for Jefferson Park. Table 2-1, below, considers the proposed development under O-B zoning, both at the base level and the bonus level. Because the Campus Property includes two existing office buildings (Buildings 1 and 2), both existing and proposed office buildings are included in calculations that rely on the size of a property, such as FAR and average height. Building 3 will need to comply with design standards for the O-B zoning district. No modifications to Buildings 1 and 2 are proposed; the buildings will remain as is. Buildings 1 and 2 are part of the baseline conditions.

Table 2-1. Zoning Requirements

	O Zoning Requirements (Base Level)	O-B Zoning Requirements (Bonus Level)	Campus Property with the Proposed Project
Property Area	25,000 sf (min) 100 feet × 100 feet (max)	25,000 sf (min) 100 feet × 100 feet (max)	578,500 sf
Floor Area Ratio[a]	45% (+10% commercial)	100% (+25% commercial)	88%
Maximum Height	35 feet	110 feet	69 feet[b]
Height[c]	35 feet	67.5 feet, except hotels	59.9 feet
Open Space	173,500 sf min (30% of total site area)	173,500 sf min (30% of total site area)	235,866 sf (40.7%)
Publicly Accessible Open Space	86,750 sf min (50% of open space area)	86,750 sf min (50% of open space area)	128,533 (54.5%)

Source: The Sobrato Organization and Arc Tec, Inc. 2021; Menlo Park Municipal Code Sections 16.43.050 and 16.43.130(4).

Notes:

a. The building area total does not include the parking structure.

b. Maximum building height refers to the proposed building; the existing onsite buildings would be shorter than the proposed building.

c. Height is defined as the average height of all buildings on one site where a maximum height cannot be exceeded. Maximum height does not include roof-mounted equipment and utilities.

Project Objectives

This EIR addresses the physical impacts of the Proposed Project, as required by CEQA. The Project Sponsor has identified the following objectives, which are relevant to the physical impacts considered in this document:

- Rejuvenate the property through the addition of a contemporary office building, trees, and other landscaping and a reduction in the amount of surface parking.
- Provide high-quality office space that includes energy- and water-efficient features.
- Provide office space that meets the needs of today's and tomorrow's technology tenants, including large floor plates that allow flexible floor plans.
- Create a campus feel on the property while maintaining the two existing buildings through careful placement of the Project's buildings and landscaping.
- Reduce the visual prominence of automobiles by replacing surface parking with structured parking.
- Provide an adequate amount of parking to meet tenant demand and avoid the need for employees to seek offsite parking.
- Create a pedestrian-friendly office campus that promotes walking by providing pedestrian connections between buildings, along with connections to the privately owned, publicly accessible open space (Jefferson Park) as well as adjacent parcels.
- Minimize traffic and greenhouse gas emissions by implementing a TDM program for the Campus Property and siting the Proposed Project close to existing and planned transit stops and/or bicycle paths.

- Provide new plazas and landscaped areas with native, drought-tolerant plant species that can be used for employee interaction.
- Generate new revenue for the City, above what could be achieved without the bonus floor area.
- Provide new employment opportunities in the city.
- Provide new stormwater treatment areas that limit stormwater runoff and promote water quality.
- Create a project with the size needed to support construction and maintenance of a publicly accessible park that can be enjoyed by school children and community members.
- Achieve the appropriate security and privacy required for the invention of new technologies by limiting public access to certain areas within the campus.

Proposed Development

The Project Sponsor is proposing to add an approximately 249,500 gsf office building (Building 3) to the Campus Property. The building would accommodate approximately 1,996 employees.[2] With the existing employees, upon implementation of the Proposed Project, approximately 3,546 employees would work at the Campus Property. Building 3 would be north of existing Buildings 1 and 2 and oriented in an approximately east–west direction (as shown in Figure 2-2). The main entry to Building 3 would be along the northern frontage, the side closest to Jefferson Drive. However, a building entry would also be provided on all other sides of the building. Building 3 would have four levels, with a maximum height of 69 feet, as measured to the top of the parapet.

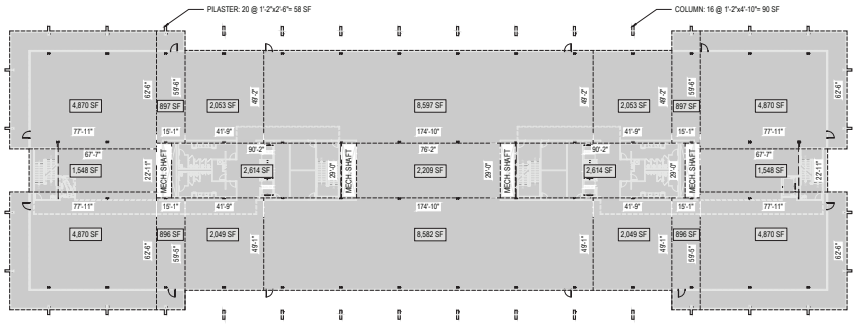
Building 3 would be surrounded by surface parking, the proposed parking structure, landscaping, and pedestrian paths. Patios with café tables and chairs would be situated in and around Building 3, providing a social space for the Proposed Project. Building 3 and the parking structure would replace most of the existing surface parking lot. Table 2-2 and Figure 2-3 summarize Building 3 by level.

Table 2-2. Building 3, Proposed Building Area

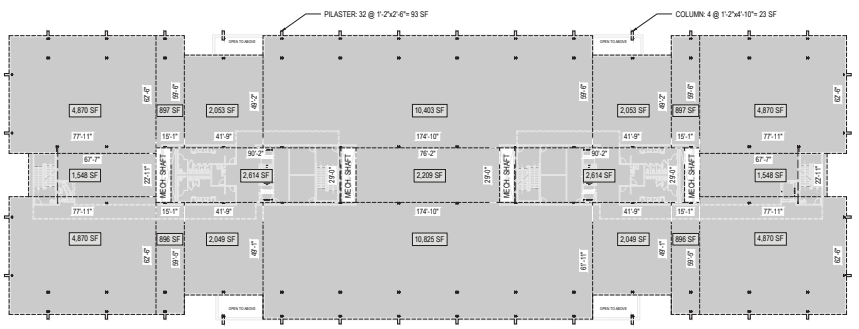
	Building Area (gsf)
Level 1	64,076
Level 2	63,147
Level 3	63,147
Level 4	59,130
Total	***249,500***

Source: The Sobrato Organization and Arc Tec, Inc., 2021.

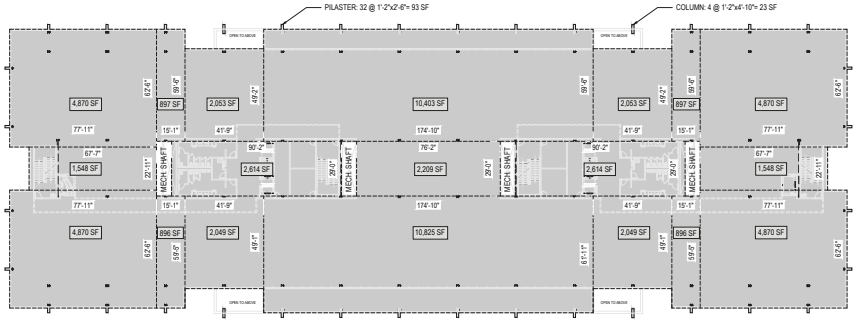
[2] Based on a load factor of one employee per 125 sf.



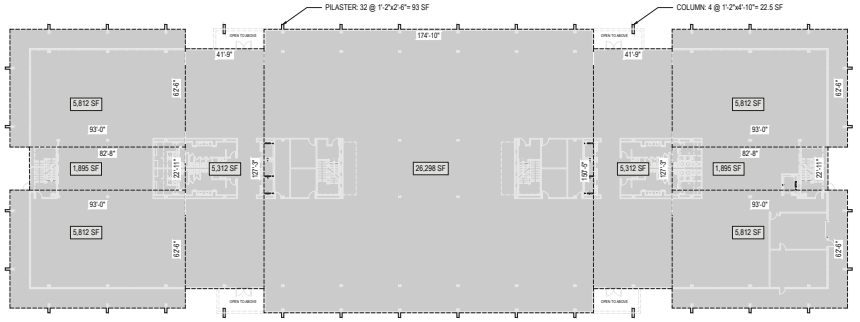
FOURTH FLOOR GROSS FLOOR AREA: 59,130 SF



SECOND FLOOR GROSS FLOOR AREA: 63,147 SF



THIRD FLOOR GROSS FLOOR AREA: 63,147 SF



FIRST FLOOR GROSS FLOOR AREA: 64,076 SF

Source: ArcTec 2021.

Not to scale.

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Figure 2-3
Site Plan by Floor—Levels 1-4
Commonwealth Building 3

The Project Sponsor would also construct an approximately 404,000 gsf parking structure east of Buildings 2 and 3, with access provided via an internal street, also east of the two buildings. The proposed parking structure would have four above-grade levels as well as one partial below-grade level and a maximum height of 48 feet. The parking structure, along with Building 3, would replace the majority of the existing surface parking.

The Proposed Project would redevelop an existing surface parking lot that fronts Jefferson Drive to create Jefferson Park, a privately owned but publicly accessible open space that would cover approximately 34,000 sf. Paseo connections from Jefferson Drive and the Campus Property would provide access to Jefferson Park. A description of the proposed uses at Jefferson Park is provided below.

CEQA requires an EIR to analyze the environmental impacts of a project's changes to the environment. Table 2-3 summarizes how the Proposed Project would alter the Campus Property. The analysis in this EIR evaluates these changes.

Table 2-3. Project-Related Changes to the Campus Property

	Existing Campus Property	Campus Property with Proposed Project	Change
Office Square Footage	259,920 gsf	509,420 gsf	249,500 gsf
Floor Area Ratio	45%	88%	43%
Average Height	67 feet	60 feet	-7 feet
Private Open Space	148,737 sf[a]	107,333 sf	-41,404 sf
Public Open Space	68,812 sf[b]	128,533 sf	59,721 sf
Vehicle Parking Spaces	866	1,531[c]	665
Bicycle Parking Spaces	50	106	56
Trees	513	403	-110
Impervious Surfaces	431,697 sf	393,155 sf	-38,542 sf

Source: The Sobrato Organization and Arc Tec, Inc., 2021.

Notes:

a. This number is approximate; because private open space was not a requirement when Buildings 1 and 2 were constructed, the private open space will not meet all current zoning requirements but should provide an adequate approximation for comparison.

b. This number is approximate; because public open space was not a requirement when Buildings 1 and 2 were constructed, the public open space will not meet all current zoning requirements but should provide an adequate approximation for comparison.

c. This does not include the additional 23 parking stalls that will be for Jefferson Park use.

Site Access, Circulation, and Parking

Vehicular Access and Circulation. The Proposed Project would not alter access to the Campus Property. The main access point would remain at Commonwealth Drive in the southwest corner of the Campus Property; the secondary access point would remain at Jefferson Drive. The internal street network would remain unchanged, providing access to surface parking and the proposed parking structure. Entrances to the parking structure would be provided along the internal street east of Buildings 2 and 3. A loading dock would be provided on the east side of Building 3.

Emergency Access. Emergency access to the Campus Property would be provided from the existing access points on Commonwealth Drive and Jefferson Drive. Emergency vehicles would enter the Campus Property at Commonwealth Drive and continue along the northern portion of the Campus Property, adjacent to the proposed building, then travel around the building to exit at Jefferson Drive. Fire access to the proposed parking structure would be at both the northern and southern ends. Fire hydrants and fire department connections would be located along the emergency access route in the vicinity of the proposed buildings.

Bicycle and Pedestrian Circulation and Bicycle Parking. Pedestrian walkways would be included between the proposed building and parking structure as well as between existing buildings and the proposed building and parking structure. Several walkways with enhanced paving at crosswalks would traverse the Campus Property in east–west and north–south directions, leading from the proposed building to the parking structure. As stated above, the Project Sponsor would pay an in-lieu fee of 110 percent of the value of the community amenity to be provided, in accordance with Menlo Park Municipal Code Section 16.43.070 (4)(B).

In addition, new bicycle and pedestrian connections would be established to connect the Campus Property to neighboring parcels. The Proposed Project would include constructing a secondary public path north of Building 3 and paseos north and west of Building 3. New multi-use paths also would be established around the parking structure, one of which would connect to a future City bicycle/pedestrian path.

In addition to the existing onsite bicycle parking (24 Class I spaces in Building 1 and 22 Class II bicycle racks), the Proposed Project would add 15 onsite bicycle lockers (Class I spaces), which would be placed at convenient and well-lit locations near the main entrance to Building 3; 45 protected storage spaces (Class I spaces) would also be provided in the parking structure, for a total of 106 bicycle parking spaces on the Campus Property.

Vehicle Parking. The Campus Property currently includes 866 surface parking spaces. Development of the Proposed Project would remove the majority of the existing surface parking spaces to construct Building 3, the parking structure, and Jefferson Park. However, these parking spaces would be replaced, and additional spaces would be provided to accommodate the increase in building area. After implementation of the Proposed Project, onsite parking would include the 191 surface parking spaces located along the perimeter of the Campus Property closest to Commonwealth Drive and the 1,340 spaces in the proposed parking structure. Including the Jefferson Park parking spaces, in total, 1,554 parking spaces would be provided at the Campus Property, including 26 Americans with Disabilities Act–compliant spaces among the surface parking and parking-structure spaces. Near the proposed Jefferson Park, 23 parking spaces would be reserved for use by persons visiting the park. The Project Sponsor has offered to lease Jefferson Park to the TIDE Academy (as yet, no agreement has been reached) for use during school hours only; thereafter, Jefferson Park and the aforementioned 23 parking spaces would be available to the general public while visiting Jefferson Park after school hours. These spaces are not included under the parking ratio (i.e., three spaces per 1,000 gsf) for the Campus Property because they would serve Jefferson Park. Table 2-4 summarizes the parking facilities at the Campus Property after implementation of the Proposed Project. The parking facilities would serve all buildings on the Campus Property.

The Proposed Project (Building 3) includes 665 parking space (2.7 spaces per 1,000 gsf) which is below the maximum allowable spaces (three spaces per 1,000 gsf) which meets the Project objective of an adequate amount of parking to meet tenant demand and avoid the need for employees to seek offsite parking.

Table 2-4. Proposed Parking

	Parking Spaces
Surface Parking	
Standard	177
Restricted Parking[a]	23
ADA – Accessible	11
ADA – Van Accessible	3
Total Surface Parking	*214*
Proposed Parking Structure	
Below Grade	168
Level 1	271
Standard	*259*
ADA – Accessible	*10*
ADA – Van Accessible	*2*
Level 2	294
Level 3	296
Level 4	311
Total in Proposed Parking Structure	*1,340*
Total Parking	*1,554*
Net New Parking (change from baseline)[b]	***688***

Source: The Sobrato Organization and Arc Tec, Inc., 2021.

Notes:

a. Reserved for Tide Academy during school hours only. After school, the spaces would be accessible for public use. Also includes one ADA-compliant accessible stall.

b. *Net New Parking (change from baseline)* includes the 23 additional stalls for Jefferson Park.

ADA = Americans with Disabilities Act

Proposed TDM Program

The City requires a 20 percent trip reduction for new projects. The proposed TDM program for Building 3 would encourage the use of public transportation and other forms of alternative transportation. In order to encourage employees to use Caltrain and the nearby M3-Marsh Road Shuttle, the Proposed Project would provide subsidized transit passes, such as a Caltrain Go Pass, to Building 3 employees. The Caltrain Go Pass is an employer-sponsored annual pass that offers unlimited rides on Caltrain through all zones, seven days per week. Carpooling and vanpool programs also would be encouraged through free ride-matching services, carpool incentive programs, vanpool formation incentives, vanpool seat subsidies, and vanpool participant rebates. Emergency ride-home programs would also be offered to employees. In addition, the Proposed Project would include bicycle storage areas, showers and changing rooms, and other onsite amenities that would encourage the use of modes of transportation other than automobiles. The TDM program is included in Appendix 3.1-2 of this EIR.

Landscaping

As shown in Figure 2-4, new landscaping would be provided around the perimeter of Building 3 and the parking structure as well as the western and southern edges of the Project site. After implementation of the Proposed Project, approximately 128,533 sf of public open space and approximately 107,333 sf of private open space would be provided on the Campus Property, for a total of approximately 235,866 sf of open space. In addition, the Proposed Project would add a 0.2-mile-long, 20-foot-wide paseo, which would be available to bicyclists and pedestrians, along the eastern boundary of the northern portion of the Project site. The paseo would continue south to the southwest border of the Campus Property along Commonwealth Drive, then extend eastward along the edge of the Campus Property adjacent to US 101. From there, a pedestrian path would continue north, looping around the Project site. The path would be along the existing private access road that connects Commonwealth Drive to Jefferson Drive.

The Campus Property contains a publicly accessible open space at its eastern edge, behind the area proposed for the parking structure. The Proposed Project would improve this space by adding a defined plaza, seating areas with tables and chairs, seat walls, a large trellis, and a wooden boardwalk through an area with native plantings. An existing stormwater treatment area with native grasses and flowers would remain. The private open spaces that would be improved as part of the Proposed Project would be located between or around Buildings 1, 2, and 3. These patios and courtyards would feature tables, chairs, a seat wall, trees, and access to an existing bocce court. In addition, outdoor balconies on the third and fourth floors of Building 3 would be provided as private open spaces. The public open space adjacent to the street and paseo, as well as the boundaries of the Project site, would be landscaped with trees and native California vegetation and/or plants with low water requirements. This vegetation would help screen the proposed building and parking structure from adjacent streets.

As discussed above, the Proposed Project would include construction of Jefferson Park, a privately owned and publicly accessible park with paseo connections from both Jefferson Drive and Commonwealth Drive. The paseo on the eastern edge of the park would be 10 foot wide pathway. This park would cover roughly 34,000 sf (0.78 acre) and include a small parking lot.

If an agreement is reached with Tide Academy, the intent is for the park to be used during school hours by the adjacent TIDE Academy for physical education classes and parking; the parking spaces would be available for 20 to 23 staff members. During non-school hours, the park and parking area would be available to the public. Potential features could include multi-use sports courts, a flexible lawn area for games and other activities, and a loop track that would encircle the park. Parking spaces within the park would be separated and accented by shade trees, grasses, shrubs, and ground cover. The final park design, which would be influenced by school and community feedback during the entitlement process, would need to comply with the City Zoning Ordinance, Chapter 16.43.130(4), and all other applicable regulations. In addition, directly adjacent to Jefferson Drive is an existing 2,800 sf stormwater treatment area; this area is planted with trees and grasses, which would remain.

There are currently 513 trees on the Campus Property. Of those, one tree qualifies as a heritage tree under the City of Menlo Park's Heritage Tree Ordinance.[3] As part of the Proposed Project, 327 trees would be removed; however, none of the trees that would be removed would be heritage trees. The remaining 186 trees would not be removed under the Proposed Project. In total, after Project construction, 403 trees would be located on the Campus Property, including the existing trees that would remain and the 217 new trees.

[3] City of Menlo Park. 2020. *Menlo Park Municipal Code*. Section 13.24.020(5). July 1, 2020.

Graphics ... 104394 (3-30-2022) JC

Source: ArcTec 2021.

Figure 2-4
Propose Open Spaces
Commonwealth Building 3

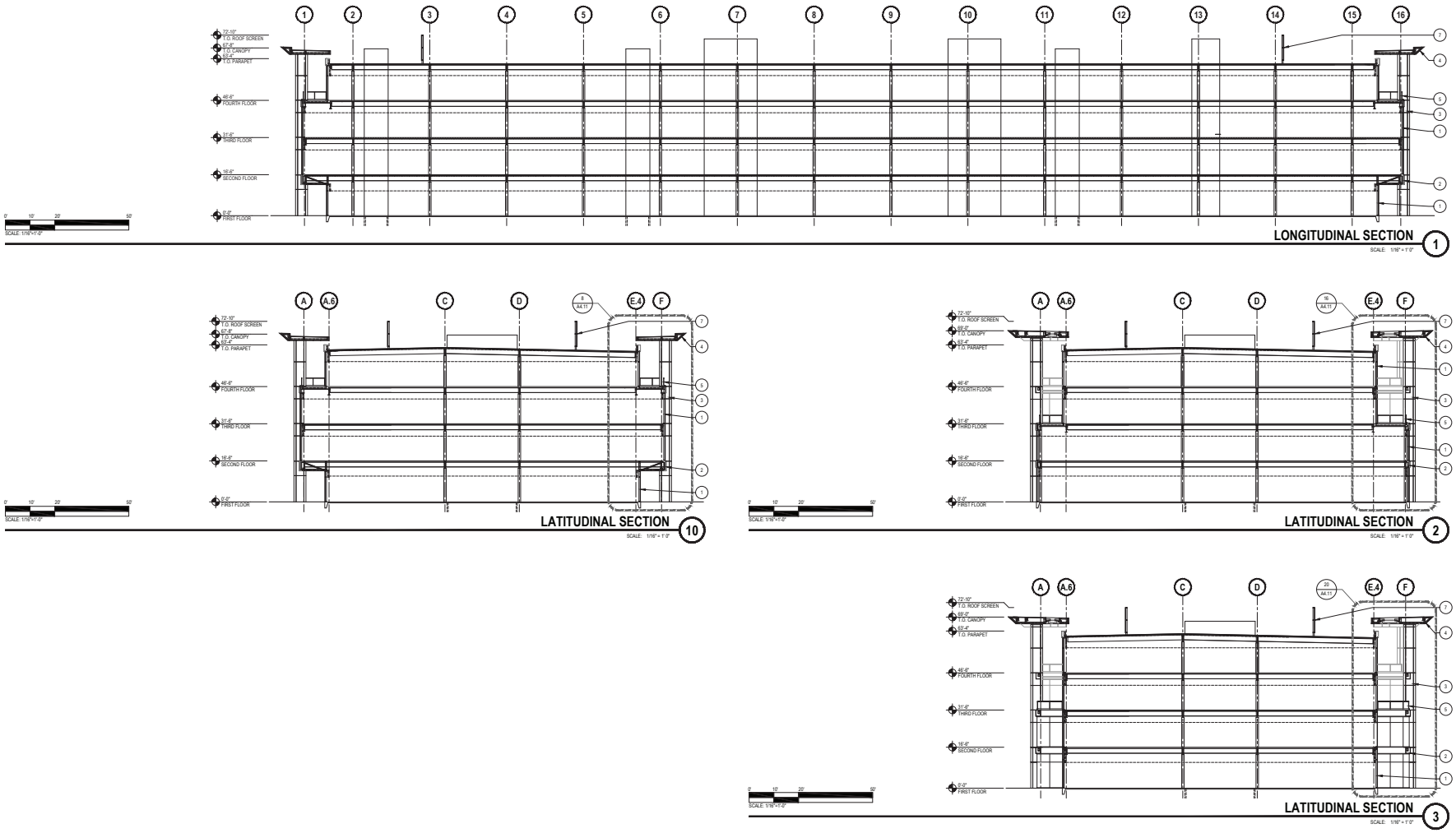
The Campus Property is covered with approximately 431,697 sf of impervious surfaces (74.6 percent of the site). Implementation of the Proposed Project would increase the amount of impervious surfaces. Paved areas would cover approximately 456,496 sf (78.9 percent) of the Campus Property. Landscaped areas would provide 121,976 sf of pervious surfaces (21.1 percent of the site). Hardscape at the Project site would include concrete paving, decomposed granite paving, and concrete pavers. Stormwater treatment areas would be located around the northern, eastern, and southern borders of the Project site to limit stormwater runoff. These biotreatment areas would be open, level vegetated areas that would allow runoff to be distributed evenly across the site. They would be designed to treat runoff by filtering raw runoff through the soil media in the treatment area. These biotreatment areas would trap particulate pollutants (suspended solids and trace metals) and promote infiltration.

Building and Sustainability Features

The design of Building 3 would be similar to the design of Buildings 1 and 2. The proposed building would be a four-story rectangular structure with a low-tint glass façade. From the core rectangular form, smaller rectangular forms would project outward, spanning the second and third floors at all four corners of the building and creating recesses at the first and fourth floors. At the center of the front and rear elevations of the building, an additional rectangular projection, two stories in height, would extend outward from the core rectangular form. All of the projecting rectangular elements would have façades with gray tinted glass, differentiating them from the low-tint glass of the core façade. Narrow columns, wrapped with aluminum panels, would extend slightly beyond the projecting rectangular forms; these would be spaced in an equidistant arrangement around all four sides of the building. The columns would support a louvered metal canopy that would run around the entire building above the fourth-floor façade. Along the front and rear elevations, horizontally oriented beams covered with dark QUARTZ-ZINC® panels would wrap across the front of the rectangular projections from the first to third floors. Balconies would be incorporated on the fourth floor of each elevation as well as the third floor of the front and rear elevations. Figure 2-5 shows the building sections, and Figure 2-6 depicts the building elevations.

The proposed four-story, orthogonal parking structure, with one partial level below grade, would step in on the east side, thereby providing articulation within the Project site. Along the rearmost wall of the parking structure, a mesh screen with a large graphic would obscure views of parked vehicles and structural elements from locations within Kelly Park and other surrounding areas. Through the use of a composite aluminum canopy along the top of the central portion of the west elevation (the elevation facing the proposed and existing office buildings), the design of the proposed parking structure would reflect the design of the proposed office building. The parking structure would be constructed almost entirely of concrete that would be painted in off-white and gray hues. In areas not concealed by painted concrete walls, the interior floors of the parking structure would be open to the exterior, with cable-type guard rails along the outer edges of each level. Figure 2-7 shows the parking structure elevations.

In the O-B zoning district, new projects are required to meet green and sustainable building regulations. Building 3 would be required to meet 100 percent of its energy demand through a combination of onsite energy generation, the purchase of 100 percent renewable electricity, the purchase and installation of local renewable energy generation systems, and/or the purchase of certified renewable energy credits and/or offsets. In addition, as currently proposed, Building 3 would be designed to meet Leadership in Energy and Environmental Design (LEED) Gold Building Design and Construction (BD+C) standards. The Proposed Project would meet the City's requirements regarding charging spaces for electric vehicles. The Proposed Project would also incorporate a bird-friendly design through its placement of the building and use of low-tint exterior glazing. Other green building requirements would be met through the Proposed Project's efficient water use and waste management planning.



Source: ArcTec 2021.

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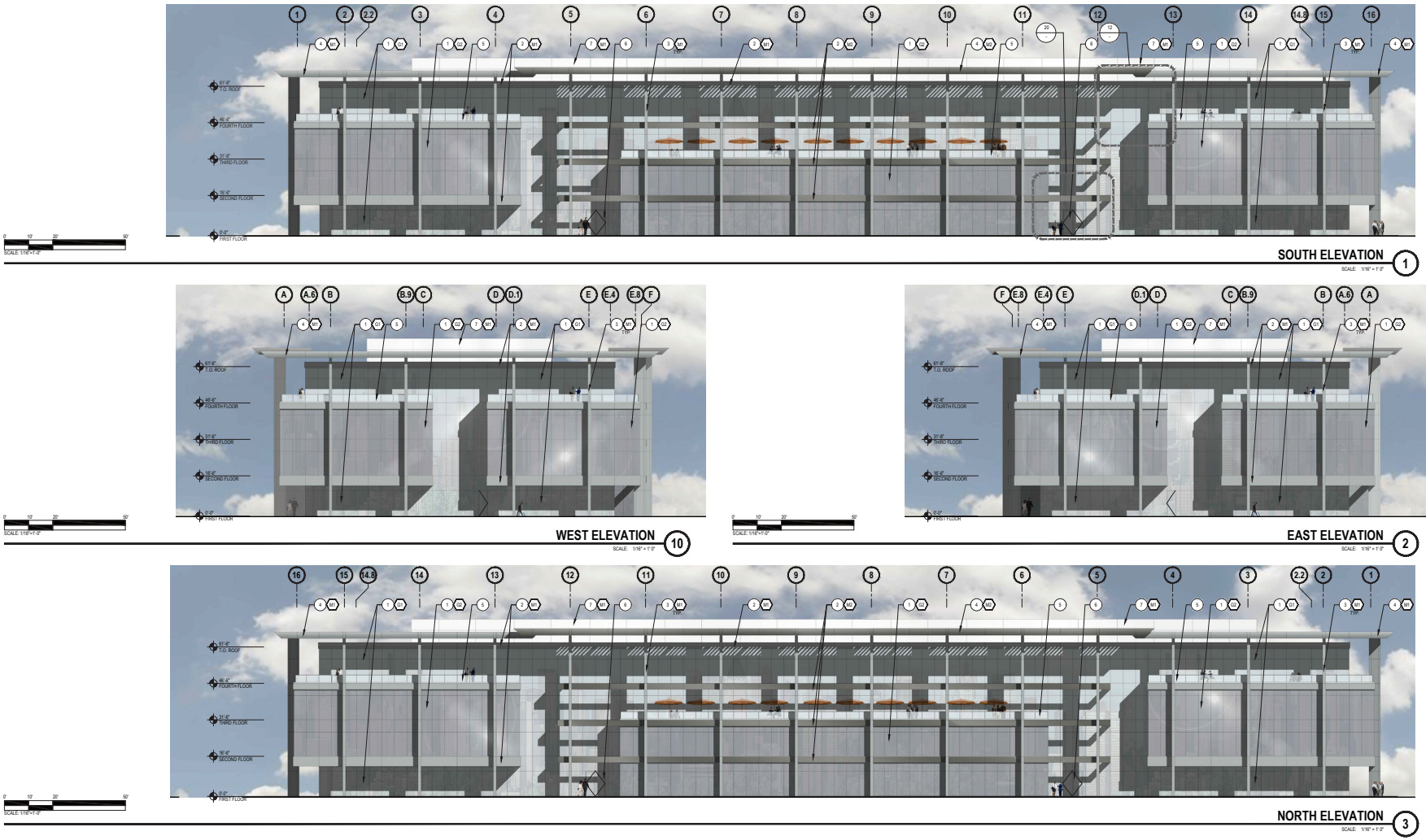
Figure 2-5
Proposed Building 3 Section
Commonwealth Building 3



Source: ArcTec 2021.

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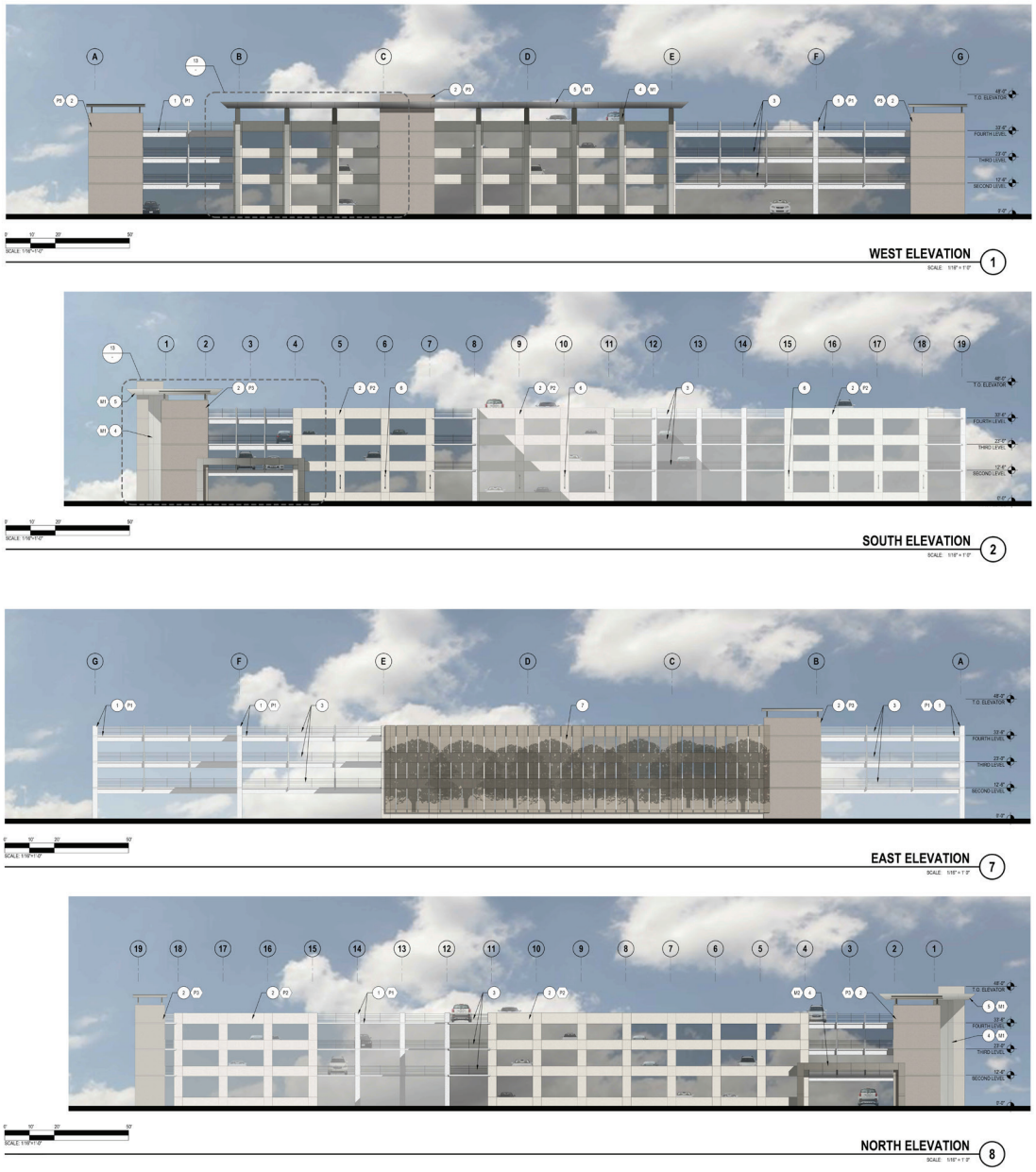
Figure 2-6
Proposed Building 3 Elevations
Commonwealth Building 3



Source: ArcTec 2021.

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Figure 2-7
Proposed Parking Structure Elevations
Commonwealth Building 3

Utilities

Onsite utilities would include energy (electricity), domestic water, wastewater, and storm drain facilities. The Proposed Project would not use natural gas. All new onsite utilities would be designed in accordance with applicable codes and current engineering practices. Utilities that are currently provided at the Campus Property would be extended to accommodate the Proposed Project.

Energy. The Proposed Project would meet 100 percent of its energy demand (electricity), consistent with the requirements of Menlo Park Municipal Code Section 16.43.140, through the purchase of 100 percent renewable electricity from Peninsula Clean Energy. In addition, Pacific Gas and Electric Company would provide electrical power for proposed facilities as needed. Existing electrical lines in the vicinity of the Campus Property would continue to serve the site. A proposed diesel emergency generator would be located in a solid at-grade enclosure on the northern portion of the Project site (north of Building 3). Line of sight to the generator would be blocked on all sides by the enclosure.

Domestic Water. The Campus Property is served by water lines that connect to Menlo Park Municipal Water. The Proposed Project would comply with the City's water usage regulations by using ultra low-flow fixtures within Building 3. In addition, the Proposed Project would be dual plumbed, such that recycled water can be used in the future when it's available for the Project site. Flow rates for the selected fixtures would be equal to or less than the 2019 CALGreen flow rates for commercial fixtures.

Wastewater. The sanitary sewer system in this area of Menlo Park is owned and operated by the West Bay Sanitation District. Building 3 would connect to an existing eight-inch sanitary sewer main at Jefferson Drive. Wastewater from the Campus Property would continue to be discharged to the South Bayside System Authority pump station in Redwood City.

Storm Drainage. Stormwater collected at the Campus Property would continue to be conveyed in a piped system to the existing 36-inch storm drain in Jefferson Drive**.** The drainage system for the Campus Property would consist of a combination of new and existing onsite storm drains. This system would collect runoff from roofs and hardscape areas and convey it to an existing pump that would discharge stormwater to new and existing biotreatment ponds for treatment in accordance with Provision C.3 Municipal Regional Permit requirements. For larger storm events, excess flows would continue to be conveyed directly to Jefferson Drive through an existing pipe system.

Telecommunications. Numerous telecommunications providers, including AT&T, XFININTY from Comcast, MegaPath, and CentruryLink Business, offer DSL, wireless cable, fiber, and copper services to residents and businesses in Menlo Park. The Project site receives services from XFINITY.[4] Underground conduits and overhead cables are present in the vicinity of the Project site.

Project Construction

For the purposes of this environmental document, the analysis considers the construction plan described below.

[4] BroadbandNow. n.d. *Internet Providers in Menlo Park, California*. Available: https://broadbandnow.com/California/Menlo-Park#show=business. Accessed: April 4, 2019.

Construction Schedule and Phasing

The Proposed Project would consist of several construction phases, parts of which may occur at the same time or overlap, with the goal of being operational in the winter of 2025. Each phase would include demolition, site preparation, trenching/utility, grading/excavation, building structure, building exterior, and paving activities. Phase 1 would involve construction of the parking structure, which would have an area of approximately 404,000 gsf. Phase 2 would involve construction of the office building, which would have an area of 249,500 gsf. Phase 3 would involve the construction of Jefferson Park, which would have an area of 34,000 gsf. It is anticipated that Phase 1 would have a duration of 25 months, Phase 2 would have a duration of 19 months, and Phase 3 would have a duration of 2 months. In total, construction is expected to last approximately 39 months.

The size of the construction workforce would vary during the different phases of construction. For Phase 1 (parking structure), approximately 8 to 125 workers would be onsite per day, with the peak occurring during the building exterior phase. For Phase 2 (office building), approximately 8 to 100 workers would be onsite per day, with the peak occurring during the building structure phase. For Phase 3 (Jefferson Park), approximately 6 to 10 workers would be onsite per day.

Standard construction work hours would be 8:00 a.m. to 6:00 p.m. Monday through Friday. However, work could start early, at 7:00 a.m. In addition, construction on Saturdays (8:00 a.m. to 5:00 p.m.) could occur. Construction activities taking place between 7:00 a.m. and 8:00 a.m. and on Saturdays would be regulated by the daytime limits of the City Noise Ordinance of the Menlo Park Municipal Code, which limits noise to 60 A-weighted decibels at the nearest residential property line during daytime hours. Construction activities taking place between 8:00 a.m. and 6:00 p.m. on weekdays would be regulated by the construction activities section of the City Noise Ordinance (Title 8.06.040[a]).

Equipment and Staging

Typical equipment would be used during Project construction, including concrete/industrial saws, excavators, dozers, tractors, loaders, backhoes, scrapers, graders, cranes, forklifts, welders, boom lifts, aerial lifts, scissor lifts, pavers, rollers, and tractors. No pile driving would be required. Potential construction laydown and staging areas would be located in the existing surface parking lot bordering Jefferson Drive prior to construction of the proposed Jefferson Park.

Spoils, Debris, and Materials

The Proposed Project would require soil excavation and tree removal. Project excavation would be approximately 15 feet deep. Construction of the Proposed Project would require the disposal of exported materials at a permitted landfill. The asphalt and concrete debris would be hauled to either Graniterock in Redwood City or Stevens Creek Quarry in Sunnyvale. The brush and landscape debris would be hauled to Zanker Landfill in San José. The haul trucks would access the site from US 101/SR 84.

Approximately five truck trips would be required per day to dispose of demolished materials and excavated soil. Truck deliveries would be required throughout construction. In total, Phase 1 (parking structure) would require approximately 1,700 truck deliveries, Phase 2 (office building) would require approximately 800 truck deliveries, and Phase 3 (Jefferson Park) would require approximately 20 truck deliveries. The maximum number of truck trips per day during either phase would be 150. Detailed descriptions regarding soil export and import during construction of the proposed building, parking structure, and Jefferson Park are provided below.

Parking Structure and Building

Demolition at the Project site associated with construction of the proposed office building and parking structure would involve approximately 1,877 tons of pavement, or approximately 3,755 cubic yards. The demolished pavement would be hauled offsite. Approximately 4,550 cubic yards of material would be exported offsite during the site preparation phase of the proposed office building and parking structure. During grading and excavation phases, approximately 2,500 cubic yards of excavated material from the site for the proposed office building and approximately 35,000 cubic yards of excavated material from the site for the proposed parking structure would be exported offsite. In total, about 45,800 cubic yards of demolished and excavated material would be exported offsite; about 3,850 cubic yards would be used as backfill or grading material in landscaped areas within the Project site. Approximately 22,150 sf of asphalt would be used for paving within the proposed parking structure.

Jefferson Park

Construction of Jefferson Park would require demolition of approximately 25,758 sf of pavement, which would be hauled offsite. In addition, proposed excavation activities would affect approximately 1,300 cubic yards of material. Approximately 6,500 sf of asphalt would be used for paving at the proposed park.

Project Approvals

City Approvals

The following City discretionary approvals would be required to permit Project development:

- **Conditional Development Permit Amendment**. The Project Sponsor would need an amended CDP to permit Building 3, including bonus-level development, and ensure that Building 3 and the parking structure would be in compliance with O zoning regulations and applicable mitigation measures. The CDP amendment would also permit the proposed diesel generator and waivers for two of the bird-friendly design guidelines, as described in the Biological Resources section of the Initial Study.
- **Architectural Control.** Per Menlo Park Municipal Code Chapter 16.68, the applicant would be required to obtain an architectural control review as well as approval of the specific building design from City Council.
- **Below-Market-Rate Housing Agreement.** A Below-Market-Rate Housing Agreement would be required for the payment of in-lieu fees associated with the City's Below-Market-Rate Housing Program.
- **Environmental Review.** This would include certification of the EIR, along with approval and adoption of a mitigation monitoring and reporting program (MMRP) for the Proposed Project and a statement of overriding considerations if the EIR discloses any potentially significant impacts that cannot be mitigated to less-than-significant levels. As discussed in the Initial Study, the Proposed Project would be required to comply with applicable mitigation measures in the MMRP for ConnectMenlo, including measures recommended in the biological resources assessment prepared by a biologist pursuant to ConnectMenlo Mitigation Measure BIO-1.

As part of the Project review process conducted by the City, a fiscal impact analysis would be prepared.

Approvals by Responsible Agencies

Other reviews and approvals that may be needed for the Proposed Project to proceed are identified below. Some agencies would need to approve certain parts of the Proposed Project prior to full implementation, but their approval would not be required for EIR certification.

- **Bay Area Air Quality Management District** – Permits for onsite generators, boilers, and other utility equipment.
- **California Department of Transportation** – Review of traffic circulation effects and consultation regarding 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** – Approval of National Pollutant Discharge Elimination System permit for stormwater discharges.
- **San Mateo County Transportation Authority** – Review of potential effects on public transit.
- **Menlo Park Fire Protection District** – Approval of proposed fire prevention systems, onsite generators, and emergency vehicle access routes.
- **San Mateo County Environmental Health Division** – Review of food service functions and onsite generators.
- **West Bay Sanitary District** – Approval of wastewater hookups.

Chapter 3
Environmental Impact Analysis

This chapter presents an analysis of the potential impacts that the Commonwealth Building 3 Project (Proposed Project) could have on existing environmental conditions. The environmental analysis has been prepared in accordance with the California Environmental Quality Act (CEQA), as amended (Public Resources Code Section 21000, et seq.), and the CEQA Guidelines.

CEQA Methodology

CEQA Guidelines Section 15151 provides guidance for the preparation of an adequate environmental impact report (EIR). An EIR should be prepared with an adequate degree of analysis to provide decision-makers with the information needed to make a decision that intelligently takes account of environmental consequences. Specifically:

- An evaluation of the environmental impacts of a project need not be exhaustive, but the adequacy of an EIR is to be reviewed in light of what is reasonably feasible.
- Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.
- The courts have looked not for perfection but for adequacy, completeness, and a good-faith effort at full disclosure.

In practice, this guidance suggests that EIR preparers should adopt a reasonable methodology upon which to estimate impacts and make reasonable assumptions, using the best information reasonably available.

As discussed in Chapter 1, *Introduction*, because the Proposed Project's location and development parameters are consistent with the General Plan and M-2 Area Zoning Update (ConnectMenlo), the ConnectMenlo Program EIR serves as the environmental analysis for some of the effects of the Proposed Project (e.g., is incorporated by reference, pursuant to CEQA Guidelines Sections 15150, 15130, and 15168). Section 15168(d) of the CEQA Guidelines provides for simplifying the preparation of environmental documents by incorporating by reference analyses and discussions. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]). By tiering from the ConnectMenlo EIR, the environmental analysis for the Proposed Project relies on the ConnectMenlo EIR, where applicable.

Pursuant to the settlement agreement in the 2017 *City of East Palo Alto v. City of Menlo Park* case, certain topics have been identified as needing further environmental review. This EIR and the Initial Study (Appendix 1-1) were prepared in accordance with the terms of the 2017 settlement agreement, which allows simplification in accordance with CEQA Guidelines Section 15168 for all topic areas, except housing and transportation, and incorporates by reference the information contained in the ConnectMenlo Final EIR, as applicable.

Determination of Significance

In accordance with Section 15022(a) of the CEQA Guidelines, the City of Menlo Park (City) uses the impact significance criteria designated by CEQA and Appendix G of the CEQA Guidelines. These criteria, as well as City-adopted significance criteria for traffic impacts, are used throughout this document to evaluate the impacts of the Proposed Project. The criteria are listed at the beginning of the *Environmental Impacts* subsection under "Thresholds of Significance" throughout this chapter.

In determining whether a project's impacts are significant, an EIR ordinarily compares the environmental conditions associated with a proposed project with existing environmental conditions, which are referred as the "baseline" for the impact analysis. This EIR compares the potential environmental impacts of the Proposed Project with the baseline environmental conditions that were in existence at the time the Notice of Preparation (NOP) was published. For each impact identified, a level of significant is determined using the classifications listed below.

- *Potentially significant (PS)* impacts occur in cases in which it is not precisely clear whether a significant effect would occur. The analysis in these instances conservatively assesses the credible worst-case conditions, but the discussion acknowledges that there is some uncertainty regarding the credible extent of the impact.
- *Less-than-significant (LTS)* impacts are effects that are noticeable but do not exceed established or defined thresholds or already are mitigated below such thresholds.
- *No impact (NI)* denotes situations in which there is no adverse effect on the environment.

For each impact identified as being potentially significant (PS), the EIR provides mitigation measures to reduce, eliminate, or avoid the adverse effect. If the mitigation measures would successfully reduce the impact to a less-than-significant level, this is stated in the EIR. However, if the mitigation measures would not diminish the effects to less-than-significant levels, then the EIR classifies the impacts, if any, as significant and unavoidable (SU). Significant determinations are indicated in ***bold, italicized*** text.

Mitigation Measures

Mitigation measures identified in this EIR, which were developed during the analysis, are designed to reduce, minimize, or avoid potential environmental impacts associated with the Proposed Project. According to CEQA Guidelines Section 15126.4:

> The discussion of mitigation measures shall distinguish between measures that are proposed by the project proponents to be included in the project and other measures proposed by the lead, responsible, or trustee agency or other persons that are not included but the agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project. This discussion shall identify mitigation measures for each significant environmental effect identified in the EIR.

In this EIR, mitigation measures are provided immediately following each potentially significant impact. The mitigation measures are numbered to correspond to the impacts they address. For example, Mitigation Measure CUL-2.1 refers to the first mitigation measure for Impact CUL-2 in the Cultural Resources section.

The Proposed Project would be required to comply with all applicable mitigation measures identified in the ConnectMenlo Mitigation Monitoring and Reporting Program (MMRP), which is a requirement of any proposed development project in Menlo Park. In addition, the Initial Study identified a number of potentially significant impacts, along with ConnectMenlo mitigation measures to reduce some impacts to

less than significant (refer to Appendix 1-1).[1] Significance determinations are based on compliance with the ConnectMenlo mitigation measures, which are already included in the existing, enforceable MMRP prepared for the ConnectMenlo Final EIR, as well as Project-specific mitigation measures identified in this EIR. All impacts identified as potentially significant in the Initial Study are described in this EIR in the appropriate topic section, along with the Project-specific mitigation measures. All required mitigation measures are identified in the Executive Summary and will be included in the MMRP that will be adopted by the City if the EIR is certified and the Proposed Project is approved.

If the Proposed Project is approved by the Menlo Park City Council, then the MMRP must be adopted. Pursuant to CEQA Guidelines Section 15097, an MMRP is a mechanism for monitoring and reporting revisions to a project or conditions of approval that a public agency has required as mitigation measures to lessen or avoid a significant environmental effect. The City can conduct the reporting or monitoring, or it can delegate the responsibilities to another public agency or private entity that accepts the delegation. The MMRP for the Proposed Project will identify the specific monitoring actions that will be done, the various City departments or other entities that will oversee completion of the mitigation, and a timeline for implementation of the measures. The responsible departments will ensure that due diligence is used during implementation of the measures. Execution of the MMRP would reduce the severity of or eliminate the significant impacts identified in this EIR.

Issues Addressed in the Draft EIR

Sections 3.1 through 3.8 of this chapter describe the environmental setting of the Proposed Project, as evaluated in the EIR, as well as impacts that are expected to result from implementation of the Proposed Project. Mitigation measures are proposed to reduce potential impacts, where appropriate. The following environmental issues are addressed in this chapter:

- 3.1, Transportation (TRA)
- 3.2, Air Quality (AQ)
- 3.3, Greenhouse Gas Emissions (GHG)
- 3.4, Noise (NOI) (except ground-borne vibration or noise, airports)
- 3.5, Population and Housing (POP)
- 3.6, Utilities and Energy (UTIL) (except solid waste)
- 3.7, Cultural Resources (except historical resources) and Tribal Cultural Resources (CUL)
- 3.8, Biological Resources (except riparian habitat or other sensitive natural communities, wetlands, conflicts with local policies, or conflicts with habitat conservation plans and natural community conservation plans)

[1] The Initial Study noted that ConnectMenlo Mitigation Measure BIO-1 would require project applicants to prepare and submit a project-specific Biological Resources Assessment (BRA) if a project were to occur on or adjacent to parcels containing natural habitat. In compliance with this requirement, a project-specific BRA was prepared for the Proposed Project. The BRA outlined measures (identified as Mitigation Measures BR-1 through BR-4 in the Initial Study) that would be implemented to reduce impacts on special-status birds and nesting birds. Since preparation of the Initial Study, the City has decided that these impacts should be discussed in the EIR and not in the Initial Study. As such, this EIR includes a discussion of special-status species and wildlife nursery sites, including required Project-specific mitigation measures.

The preliminary analysis provided in the Initial Study (Appendix 1-1) determined that development of the Proposed Project would not result in significant impacts related to the following environmental topics: aesthetics, agricultural and forestry resources, cultural resources (historic resources), geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise (ground-borne noise and vibration levels, airports), public services, recreation, and utilities and service systems (solid waste). Consequently, these issues are not examined in this EIR but are briefly discussed in Chapter 4, Section 4.3, *Effects Found Not to Be Significant*. In addition, although the Initial Study indicated that development of the Proposed Project would not result in significant impacts related to biological resources, the City has since identified potential significant impacts on special-status species and wildlife nursery sites (due to nesting birds) that could occur; additional analysis is therefore required. As such, additional analysis related to special-status species and wildlife nursery sites is included in Section 3.8 of this EIR.

Consistency with the City's land use and planning policies, including the City General Plan and the City Zoning Ordinance, are discussed in Section 3.11, *Land Use and Planning*, of the Initial Study (Appendix 1-1). It should be noted that, according to CEQA, policy conflicts do not, in and of themselves, constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they result in direct physical impacts or when the conflicts are related to avoiding or mitigating environmental impacts. Any such associated physical environmental impacts are discussed in the Initial Study or appropriate sections of this EIR. Zoning compliance and other policy considerations will be evaluated by City decision-makers when considering whether to approve the Proposed Project.

As stated above, this EIR compares the potential environmental impacts of the Proposed Project with the baseline environmental conditions that were in existence at the time the NOP was published (May 2019). In some cases, in accordance with CEQA Guidelines Section 15125(a), it is appropriate to use a different baseline to identify impacts and account for circumstances that changed over the course of the environmental review period, such as changes since publication of the NOP or completion of the Initial Study. However, even though 2 years have passed since issuance of the NOP and Initial Study for the Proposed Project, circumstances related to existing conditions at the Project site, as well as the Proposed Project, have not changed. In addition, subsequent to preparation of the Initial Study, the City identified potential significant impacts on special-status species and wildlife nursery sites (due to nesting birds) that could occur; mitigation measures not included in the ConnectMenlo EIR may be required to reduce those impacts. As such, the City decided to include an analysis of impacts on special-status species and wildlife nursery sites in this EIR. Overall, with the exception of impacts related to special-status species and wildlife nursery sites, the conclusions reached in the Initial Study are still valid, and further analysis of the environmental topics that were scoped out is not required.

Approach to Cumulative Impacts

In addition to the evaluation of project-specific impacts, CEQA also requires an evaluation of cumulative impacts. CEQA defines *cumulative* as "two or more individual effects that, when considered together, are considerable or can compound to increase other environmental impacts." Section 15130 of the CEQA Guidelines requires an EIR to evaluate potential environmental impacts when a 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 probable future projects. These impacts can result from a combination of a proposed project together with other projects, thereby

causing related impacts. The cumulative impact of several projects is the change in the environment that results from the incremental impact of one project when added to other closely related past, present, or reasonably foreseeable probable future projects.

The methodology for assessing cumulative impacts varies, depending on the specific topic being analyzed. CEQA requires cumulative impacts to be analyzed with the use of either a list of past, present, and probable future projects with related or cumulative impacts or a summary of the projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates the conditions that contributed to the cumulative effect. This analysis employs both the list-based approach and projections-based approach, depending on which approach best suits the resource topic being analyzed.

The cumulative land use assumptions include projections by the Association of Bay Area Governments and the Metropolitan Transportation Commission for 2040, with refinements to reflect development projects that are under construction, approved, or pending in Menlo Park. The cumulative land use assumptions also considered ConnectMenlo, which included changes to the City's zoning map and rezoned specific properties to reflect City General Plan updates, including new land uses within the Bayfront Area of the city. ConnectMenlo specifically identified the new development potential in the Bayfront Area (i.e., up to 2.3 million gross square feet of non-residential space, 400 hotel rooms, 4,500 residential units, 11,570 residents, and 5,500 employees).[2] The buildout potential for future development is expected to occur over a 24-year buildout horizon (from approximately 2016 to 2040).[3]

The closely related past, present, and reasonably foreseeable probable future projects considered in this EIR are listed in Table 3-1 and depicted in Figure 3-1, both of which are provided at the end of this section. These are either projects for which the City has an application on file or projects that have been entitled but have not yet begun construction (i.e., at the time when the EIR analysis was initiated [December 2019]).[4] As shown, these projects include new residential, non-residential, and mixed-use projects. Refer to the appropriate discussion in each topic section for further discussion of the cumulative assumptions relevant to each issue topic.

Throughout this EIR, cumulative impacts are denoted by a "C" (e.g., Impact C-NOI-1). An analysis of cumulative impacts follows the impact evaluation and recommendation for mitigation measures in each section. An introductory statement that defines the cumulative context being analyzed for each respective section (e.g., the city, the San Francisco Bay Area Air Basin) is included at the beginning of each cumulative impact section. In some instances, an impact may be considered less than significant for the Proposed Project by itself but considered potentially significant in combination with development in the surrounding area. Similarly, a potentially significant Project impact may not result in a cumulatively considerable impact.

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2 The ConnectMenlo Final EIR included an evaluation of 4,500 residential units in the Bayfront Area, consisting of 3,000 unrestricted residential units and 1,500 corporate dormitory-style housing units on the Facebook East Campus (also known as the Classic Campus).

3 Although the ConnectMenlo Final EIR assumed a buildout horizon of 2040, the maximum development potential may be reached sooner than anticipated. However, the ConnectMenlo Final EIR evaluated the maximum development potential that could occur at any given time and did not consider phased buildout of the development potential; therefore, no new or additional impacts are anticipated as a result of the expedited buildout.

4 This EIR uses the City's December 2019 list of cumulative projects to be consistent with the transportation studies for other proposed development projects in the immediate vicinity of the Project site. Each of these studies was generally initiated at that time.

Organization of This Chapter

Each CEQA topic or environmental issue in this chapter is given its own section, each containing the subsections listed below.

- **Environmental Setting**—describes the baseline conditions, including the environmental context and background. As discussed in Chapter 2, *Project Description*, the Project site includes a portion of the Commonwealth Corporate Center property at 162 and 164 Jefferson Drive in the city of Menlo Park.
- **Regulatory Setting**—describes the federal, state, and local regulations relevant to the impact topic and applicable to construction and operation of the Proposed Project.
- **Environmental Impacts and Mitigation Measures**—presents a discussion of the potential impacts that could result from implementation of the Proposed Project. The section begins with the criteria of significance, which are the thresholds used to determine whether an impact is potentially significant. The latter part of this section presents the potential impacts and the recommended mitigation measures, if necessary. As previously discussed in Chapter 1, *Introduction*, the analysis refers to, and tiers from, the ConnectMenlo EIR, where appropriate. The potential impacts of the Proposed Project are organized into separate categories, based on the criteria listed in each topical section. Cumulative impacts are also addressed.

Table 3-1. Cumulative Projects in the City of Menlo Park[a]

ID	Address	Type of Use	Size	Unit	Project Status as of December 2019
	Office/Retail/Commercial/Life Science/Etc.				
1	100–155 Constitution Drive (Menlo Gateway)	Office Restaurant	487,244 7,420	gsf gsf	Under Construction
2	1010–1026 Alma Street	Office Retail	25,156 324	gsf gsf	Completed
3	1350 Adams Court (1315 O'Brien Drive)	R&D	260,400	gsf	Proposed Construction
4	301–309 Constitution Drive (Facebook Expansion Project)	Office Office Hotel	450,400 512,000 200	gsf gsf rooms	Under Construction Completed Proposed Construction
5	1125 O'Brien Drive	R&D Fitness (Campus Only) Retail/Commercial	115,218 13,870 2,394	gsf gsf gsf	Proposed Construction
6	150 Jefferson Drive (TIDE Academy)	School School	40,000 400	gsf students	Completed (9th–11th Grade Only)
7	2111–2121 Sand Hill Road (Stanford)	Office	39,010	gsf	Proposed Construction
8	1430 O'Brien Drive	R&D Fitness Café	66,583 10,223 7,652	gsf gsf gsf	Occupied
9	40 Middlefield Road	Office	3,584	gsf	Proposed Construction
10	Guild Theatre 949 El Camino Real (Guild Theatre)	Live Entertainment Venue	10,854	gsf	Proposed Construction
11	555 Willow Road (Boarding House)	Boarding House	16	rooms	Proposed Construction
12	1704 El Camino Real (Hampton Inn)	Hotel	70	rooms	Proposed Construction
13	3723 Haven Avenue (Hotel Moxy)	Hotel	167	rooms	Proposed Construction
14	301 Constitution Drive (Citizen M Hotel Conditional Development Permit (Amendment)	Hotel	40	rooms	Proposed Construction
15	1075 O'Brien Drive	R&D/Office	100,000	gsf	Proposed Construction

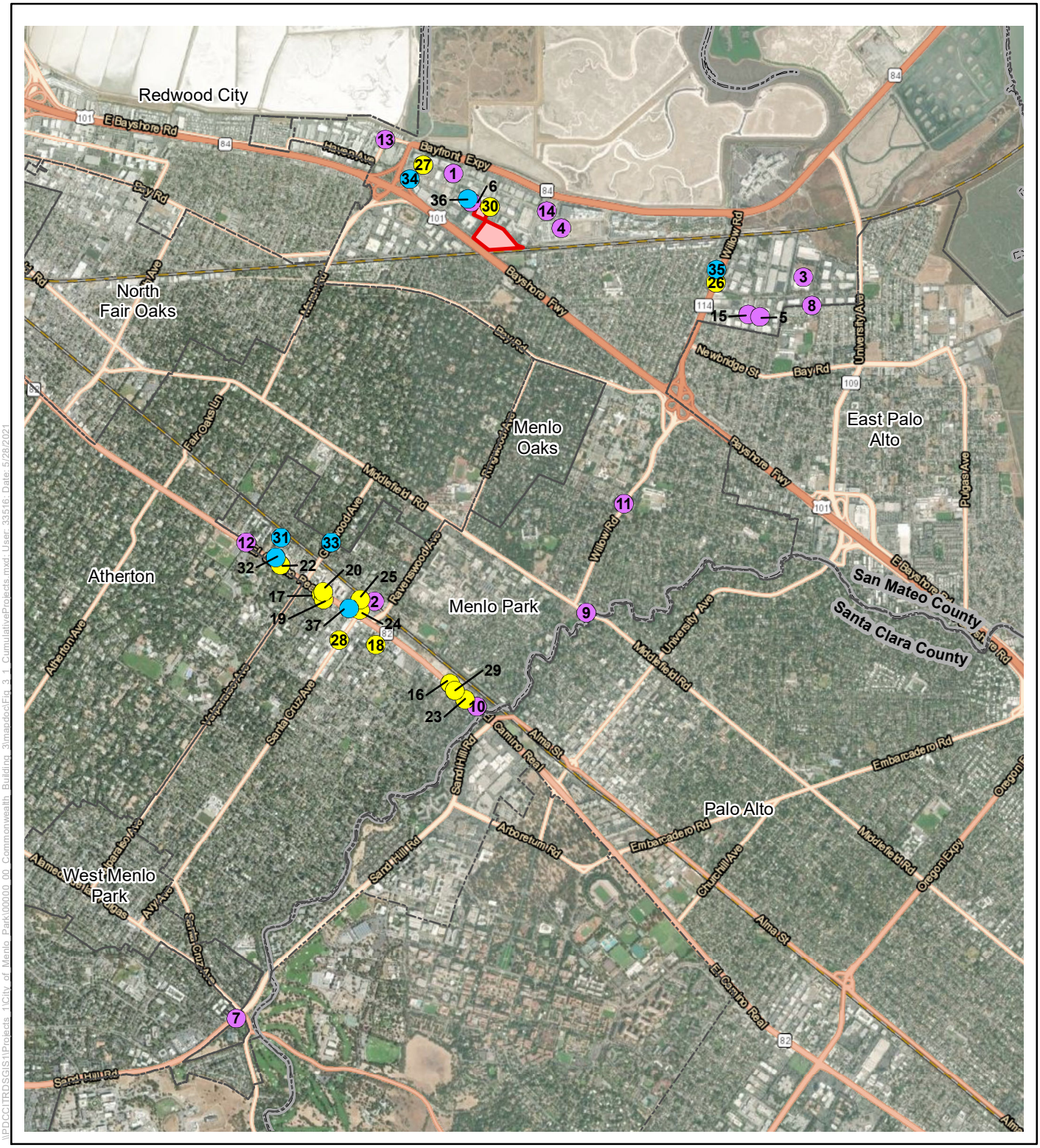
ID	Address	Type of Use	Size	Unit	Project Status as of December 2019
	Mixed Use				
16	500 El Camino Real (Stanford)	Residential Office Retail	215 143,900 10,000	du gsf gsf	Under Construction Under Construction Proposed Construction
17	1283–1295 El Camino Real (1285 El Camino Real)	Residential Office/Retail/Service	15 1,997	du gsf	Under Construction
18	650–660 Live Oak Avenue (Minkoff Group)	Office Residential	16,854 17	gsf du	Under Construction
19	1275 El Camino Real	Residential Office Retail	3 9,334 589	du gsf gsf	Under Construction
20	1300 El Camino Real (Greenheart)	Residential Office Retail/Personal Service	183 203,000 18,600	du gsf gsf	Under Construction
21	841 Menlo Avenue (1021 Evelyn Street)	Residential Office	3 6,610	du gsf	Proposed Construction
22	1540 El Camino Real	Residential Office	27 40,759	du gsf	Under Construction
23	115 El Camino Real	Residential Retail	4 1,420	du gsf	Proposed Construction
24	506–556 Santa Cruz Avenue	Residential Retail/Café Office	7 4,617 17,860	du gsf gsf	Under Construction
25	1125 Merrill Street	Residential Office	2 4,366	du gsf	Under Construction
26	1350 Willow Road (Facebook Willow Village)	Residential Office Retail Hotel Community Serving Space	1,735 1,750,000 175,000 250 10,000	du gsf gsf rooms gsf	Proposed Construction

ID	Address	Type of Use	Size	Unit	Project Status as of December 2019
27	110 Constitution Drive and 115 Independence Drive (Menlo Portal)	Residential Office	320 34,708	du gsf	Proposed Construction
28	706–716 Santa Cruz Avenue	Residential Office Retail	4 23,454 12,075	du gsf gsf	Proposed Construction
29	201 El Camino Real	Residential Medical Office Retail Restaurant	14 2,985 2,962 1,200	du gsf gsf gsf	Proposed Construction
30	165 Jefferson Drive (Menlo Flats)	Residential Commercial	158 14,000	du gsf	Proposed Construction
	Residential				
31	133 Encinal Avenue (Roger Reynolds)	Residential	24	du	Completed/Occupied
32	1550 El Camino Real	Residential	8	du	Proposed Construction
33	409 Glenwood Avenue	Residential	7	du	Proposed Construction
34	111 Independence Drive	Residential	105	du	Proposed Construction
35	1345 Willow Road	Residential	140	du	Proposed Construction
36	141 Jefferson Drive (Menlo Uptown)	Residential	483	du	Proposed Construction
37	1162 El Camino Real	Residential	9	du	Proposed Construction
Total Residential				**3,499**	**du**
Total Non-Residential				**4,733,274**	**gsf**
Total Hotel Rooms				**686**	**rooms**
Total Students				**400**	**students**

Source: City of Menlo Park, 2019. *List of Development Projects Based on Applications Received Before or During December 2019*.

Notes: gsf = gross square feet, du= dwelling unit

[a] Table includes pending and approved projects that have filed a complete development application for five or more net new residential units or 5,000 gsf of net new commercial space.



\\PDCCITRDSGIS\Projects_1\City_of_Menlo_Park\600000_00_Commonwealth_Building_3\mapdocs\Fig_3_1_CumulativeProjects.mxd User: 33516; Date: 5/28/2021

Project Site
City Boundary
County Boundary
Cumulative Projects
Commercial
Mixed Use
Residential

0 0.5 1 Miles

N

Source: Imagery, ESRI 2021; Cumulative Projects, City of Menlo Park 2021.

Figure 3-1
Cumulative Projects
Commonwealth Building 3 Project

3.1 Transportation

This section discusses the results of the transportation impact analysis (TIA) conducted for the Proposed Project. Specifically, this section describes existing and future transportation and circulation within the study area, describes the analysis methodology and regulatory framework, identifies potential transportation-related impacts of the Proposed Project, and identifies the recommended mitigation measures for identified significant impacts.

For purposes of disclosing potential transportation impacts, projects in the City of Menlo Park use the City's current TIA Guidelines to ensure compliance with both State and local requirements.[1] Up until July 1, 2020, the City's TIA Guidelines used roadway congestion or level of service (LOS) as the primary study metric for planning and environmental review purposes. However, Senate Bill (SB) 743 required the Governor's Office of Planning and Research (OPR) to establish a new metric for identifying and mitigating transportation impacts under CEQA in an effort to meet the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. CEQA Section 21099(b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to CEQA Section 21099(b)(1), automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA. OPR identified vehicle miles traveled (VMT) as the required CEQA transportation metric for determining potentially significant environmental impacts.[2] In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the section implementing SB 743 (CEQA Guidelines Section 15064.3). OPR developed a *Technical Advisory on Evaluating Transportation Impacts in CEQA,* which contains OPR's technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures.[3] As of July 1, 2020, VMT (not LOS) is the legally acceptable threshold for determining the significance of transportation-related environmental impacts pursuant to CEQA.

Adoption of a local VMT threshold requires City Council approval and on June 23, 2020, the City Council of Menlo Park approved local VMT thresholds for incorporation into the updated TIA Guidelines and subsequently updated those VMT thresholds on January 11, 2022.[4] The VMT thresholds adopted in June 2020 that were in place at the time of the Notice of Preparation (NOP) for the EIR were used in this analysis. The City Council retained the requirement that the TIA also analyze LOS for local planning purposes. Therefore, the TIA includes both an assessment of VMT impacts using local VMT thresholds included in the updated TIA Guidelines for purposes of determining potentially significant environmental impacts pursuant to CEQA and a summary of the LOS analysis for assessment of local congestion for planning purposes. In accordance with SB 743 for purposes of determining potentially significant environmental impacts, this EIR will focus only on VMT as the threshold of significance. Because the City

1 Menlo Park, City of. 2020. *Transportation Impact Analysis Guidelines*. Available: www.menlopark.org/DocumentCenter/View/302/Transportation-Impact-Analysis-Guidelines?bidId=. Accessed: June 6, 2022.

2 California Office of Planning and Research (OPR). 2016. *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, Implementing Senate Bill 743 (Steinberg, 2013)*. January 20.

3 OPR. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA.* Available: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed: June 6, 2022..

4 Menlo Park, City of. 2022. *City Council Meeting Agenda*. Available: https://beta.menlopark.org/files/sharedassets/public/agendas-and-minutes/city-council/2022-meetings/agendas/20220111-city-council-agenda-packet.pdf#page=229. Accessed: June 6, 2022.

Council approved TIA Guidelines also require an analysis of LOS for local planning purposes, that information is summarized in the Non-CEQA Analysis at the end of this section and Appendix 3.1-1 (Transportation Impact Analysis) of this EIR.

The information in this chapter is based on travel demand modeling, transportation impact analysis, and identification of mitigations developed by Kittelson and Associates, Inc. The analyses were conducted in accordance with the standards and methodologies set forth by the City of Menlo Park and the City/County Association of Governments of San Mateo County (C/CAG) at the time of the NOP for this EIR. The technical appendices are included in Appendix 3.1-1 (Transportation Impact Analysis) of this EIR. The appendices include the level of service analysis summary, turning movement volumes, intersection lane configurations, and intersection level of service results.

The following transportation-related topics were raised in response to NOP issued in June 2019:

- Vehicle miles traveled
- Project-related traffic and impacts on school operations and student safety
- Alternatives considered for evaluation
- Study intersections selected for analysis

These comments were considered in the preparation of this EIR and are included in Appendix 1-2. Comments and topics related to the Proposed Project's physical environmental impacts, specifically with regard to transportation, are addressed in the following sections.

Existing Conditions

This section describes the existing transportation conditions, including roadway network, bicycle facilities, pedestrian facilities, and transit service, within the study area. The study area is the approximately 0.5-mile radius around the Project site. The applicable regulatory framework is also described.

This section describes the existing transportation conditions, including the roadway network, bicycle facilities, pedestrian facilities, and transit service, within the study area.

Existing Roadway Network

Primary arterials, minor arterials, collectors, and local streets run through the Project area. In this transportation analysis, US 101 and all streets parallel are defined as running north to south. Conversely, Marsh Road and all streets parallel are defined as running east to west. Descriptions of roadways in the Project area are provided below.

Bayshore Freeway (US 101) is an eight-lane freeway running west of the Project site with a posted 65 mile per hour (mph) speed limit in the vicinity of the Project site. US 101 runs north-south through California, Oregon, and Washington and is a major regional freeway on the San Francisco Bay Peninsula connecting Menlo Park with cities in the San Francisco Peninsula from San José to San Francisco. There is one high occupancy vehicle (HOV) lane in both directions within the City of Menlo Park. Express lanes were opened from the San Mateo County/Santa Clara County line to Redwood City in February 2022. Express lanes operate from 5 a.m. to 8 p.m. Monday through Friday and remain open to all vehicles during other times. Two interchanges serve Menlo Park at Willow Road and Marsh Road.

Bayfront Expressway (SR 84) is a six-lane east-west Expressway that connects the San Francisco Peninsula to the east via the Dumbarton Bridge. Within Menlo Park, it connects Marsh Road with the Dumbarton Bridge. On-street parking is not permitted on Bayfront Expressway. From Marsh Road to Chilco Street, the speed limit is 45 mph. South of Chilco Street, the speed limit is 50 mph.

University Avenue (SR 109) is an east-west four-lane arterial from Bayfront Expressway to the railroad tracks and a four-lane local road west of the railroad tracks. Between US 101 and Bayfront Expressway, University Avenue is owned by the California Department of Transportation (Caltrans) and has a speed limit of 35 mph west of Purdue Avenue. East of O'Brien Drive, University Avenue (SR 109) has a speed limit of 25 mph. University Avenue serves residential and commercial areas east of US 101 and mainly residential areas west of US 101. On-street parking is not permitted on University Avenue. Bicycle lanes are provided on University Avenue between Bayfront Expressway and Middlefield Road, except for a gap in the bicycle lanes where University Avenue approaches and crosses US 101.

Willow Road (SR 114) is an east-west four-lane boulevard that connects Bayfront Expressway with US 101 and Middlefield Road. On-street parking is not permitted, and the speed limit is 40 mph with a portion of Willow Road between the US 101 interchange and Newbridge Street limited to 35 mph. Between Middlefield Road and US 101, Willow Road is a two-lane mixed-use avenue with bicycle lanes, on-street parking permitted in some sections, and the posted speed limit is 25 mph. West of US 101, Willow Road generally serves residential areas.

Bay Road is a two-lane roadway that runs north-south and west of US 101 between Marsh Road and Willow Road. Bay Road is classified as a neighborhood collector and has a posted speed limit of 30 mph. Bay Road predominantly provides access to residential land uses and notably connects to Flood Park. There are bicycle lanes on both sides of the street and on-street parking is not permitted.

Chilco Street is a two-lane east-west mixed-use collector street between Bayfront Expressway and Hamilton Avenue and a neighborhood collector between Hamilton Avenue and Newbridge Street. On-street parking is permitted in some sections of Chilco Street. Posted speed limits vary depending on adjacent land uses, including 25 mph in the Belle Haven neighborhood and 30 mph when the road is parallel to the railroad tracks between Constitution Drive and Terminal Avenue.

Chrysler Drive is an east-west two-lane mixed-use collector street. On-street parking is generally permitted south of Constitution Drive. The speed limit on Chrysler Drive is 25 mph with one lane of travel in each direction west of Constitution Drive and two eastbound lanes and one westbound lane between Constitution Drive and Bayfront Expressway.

Commonwealth Drive is a north-south roadway classified as a local access roadway and has a posted speed limit of 25 mph. This roadway has one lane of travel in each direction and provides direct access to the Project site. On-street parking is permitted, no bicycle facilities are provided, and a sidewalk is provided on the east side of the roadway.

Constitution Drive is a two-lane north-south mixed-use collector street between Independence Drive and Chilco Street. Constitution Drive has a posted speed limit of 30 mph, and on-street parking is permitted on some portions of Constitution Drive.

Florence Street-Bohannon Drive extends north and connects Bay Road with Marsh Road, while Bohannon Drive extends southeast and connects to Scott Drive. Both run approximately parallel to the railroad tracks. Florence Street is a two-lane local access roadway with a third reversible turn lane and a posted speed limit of 25 mph. This roadway is located outside of Menlo Park in the City of Redwood City's jurisdiction. On-street parking spaces are present on the west side of Florence Street and is also permitted

between 17th Street and Marsh Road. Florence Street provides access to commercial destinations on the west side of the roadway and residences on the east side. Bohannon Drive is a two-lane local access street in Menlo Park that primarily serves industrial and office land uses. On-street parking is primarily permitted on the south side of the roadway.

Hamilton Avenue is a two-lane neighborhood collector that runs in a north-south direction between Willow Road and Chilco Street. On-street parking is permitted on both sides of the roadway, and the posted speed limit is 25 mph. Adjacent land uses are a mix of residential, office, civic, religious, hotel, green space, and commercial. Between Chilco Street and Market Place, Hamilton Avenue is a bicycle boulevard with a vehicle travel lane in each direction, primarily providing access to single-family residences. Class III bicycle facilities are proposed throughout Hamilton Avenue.

Independence Drive is a two-lane north-south roadway classified as a mixed-use collector between Constitution Drive and Chrysler Drive. An eastward extension of Independence Drive connects to Marsh Road. The speed limit is 25 mph, and on-street parking is permitted in some areas.

Jefferson Drive is a two-lane mixed-use collector street connecting Chrysler Drive and Constitution Drive and provides direct access to the Project site. The speed limit is 25 mph and no on-street parking is permitted on either side of the roadway.

Marsh Road is a roadway with a posted speed limit of 35 mph in Menlo Park. Between US 101 and Bayfront Expressway, Marsh Road is a thoroughfare with three lanes in each direction. From US 101 to Bay Road, Marsh Road is classified as a mixed-use collector. No on-street parking is permitted between US 101 and Bayfront Expressway.

Middlefield Road is a north-south mixed-use avenue with a posted speed limit of 35 mph. Middlefield Road has one lane in each direction north of Ringwood Avenue and two lanes in each direction south of Ringwood Avenue. Near Marsh Road, Middlefield Road has one lane in each direction. On-street parking is not permitted on Middlefield Road. Middlefield Road provides access mainly to residential, office, and school uses.

Scott Drive is a two-lane local access roadway that connects to Marsh Road and Bohannon Drive. Scott Drive runs north-south in parallel and adjacent to the US 101 southbound on-ramp at Marsh Road. Scott Drive has on-street parking permitted on the west side of the roadway. The speed limit is not posted but assumed to be 25 mph. Scott Drive primarily provides access to office parks and buildings.

Existing Bicycle Facilities

The City's existing bicycle facilities are classified according to the State's system of classification as identified in the Menlo Park General Plan Circulation Element:

- Class I (bike path) – A Class I bicycle facility is completely separated from vehicles on a paved right-of-way and is commonly known as a bike path.
    - Multi-use Pathway – A Multi-use Pathway is a Class I bicycle facility that allows both bicyclists and pedestrians to use the facility.
- Class II (bike lane) – A Class II bicycle facility is a striped and stenciled lane on an existing right-of-way shared with vehicles and is commonly known as a bike lane.
- Class III (bike route) – A Class III bicycle facility is identified through signage and/or pavement markings called "sharrows" indicating that bicyclists and drivers share the same travel lane and is commonly referred to as a bike route.

- Class IV (protected bike lane) – A Class IV bicycle facility is a striped lane with a vertical and physical separation, such as parking or bollards, from the vehicle travel lane and is commonly referred to as a protected bike lane.

Figure 3.1-1 shows the existing bicycle facilities in the area. As shown in Figure 3.1-1, the San Francisco Bay Trail, a Class I facility (multi-use pathway), runs along Bayfront Expressway between Haven Avenue and the Dumbarton Bridge. The path provides connections to the East Bay, East Palo Alto, and Redwood City. Class II facilities (bike lanes) are provided on Chrysler Drive between Bayfront Expressway and Constitution Drive; on Constitution Drive between Chilco Street and Chrysler Drive; on Chilco Street from Bayfront Expressway to Constitution Drive; on Florence Street from Bay Road to Marsh Road; on Willow Road between Bayfront Expressway and Alma Street; on Bay Road between Marsh Road and Van Buren Avenue; on University Avenue between Donahoe Street and Bayfront Expressway and between Fulton Street and Woodland Avenue; on Middlefield Road between Marsh Road and Willow Road; and on Ringwood Avenue between Middlefield Road and Bay Road connecting to the bicycle and pedestrian bridge across US 101. Class III facilities (bike routes) are provided on Independence Drive between Chrysler Drive and Constitution Drive; on Chrysler Drive between Independence Drive and Constitution Drive; on Hamilton Avenue between Market Place and Chilco Street; and on Chilco Street between the railroad tracks and Newbridge Street. Class IV facilities (protected bike lanes) are provided on the east and west sides of Chilco Street between Bayfront Expressway and the railroad tracks that run parallel to Chilco Street.

Existing Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, curb ramps, curb extensions, and various streetscape amenities such as lighting and benches. Figure 3.1-1 presents the sidewalk facilities in the Project vicinity. In general, the network of sidewalks, crosswalks, and curb ramps are limited and discontinuous in the vicinity of the Project site. There are currently sidewalks on the Project site's Jefferson Drive frontage and along the east side of Commonwealth Drive. Sidewalks are provided on both sides of Chrysler Drive from Jefferson Drive to Commonwealth Drive and Constitution Drive to Bayfront Expressway and on the south side of Chrysler Drive from Jefferson Drive to Constitution Drive. Sidewalks are also present on the west side of Independence Drive between Constitution Drive and Chrysler Drive.

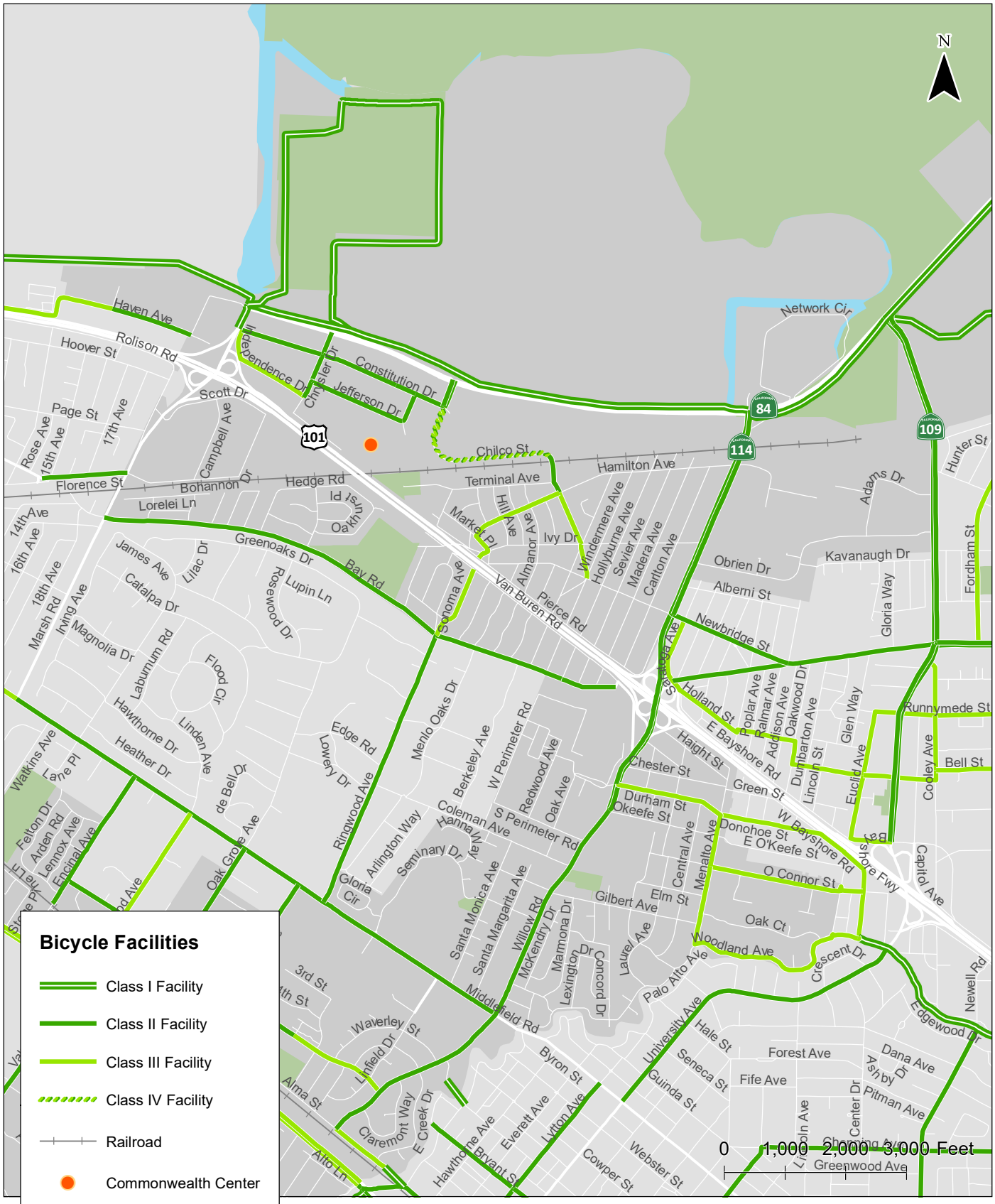
In addition to the sidewalk gaps and lack of marked crosswalks and curb ramps on the Project block, the surrounding high-volume and high-speed roadways (US 101 and Bayfront Expressway) limit pedestrian access to the Project site. Marked pedestrian crossings along Bayfront Expressway are limited. There are three pedestrian crossings located at the Marsh Road and Haven Road intersection, Chrysler Drive, and Chilco Street, connecting the Project area to the Class 1 path parallel to Bayfront Expressway. Figure 3.1-2 shows the existing pedestrian facilities in the area.

Existing Transit Service

Figure 3.1-3 shows the existing transit and shuttle services in the area.[5] The Menlo Park Shuttle, a free shuttle service provided by the City of Menlo Park, connects to the Menlo Park Caltrain Station.

San Mateo County Transit District (SamTrans) provides local and regional bus service, Caltrain provides commuter rail service, and Alameda-Contra Costa County Transit District (AC Transit) provides bus service between Menlo Park from the Union City Bay Area Rapid Transit (BART) Station. The City operates

5 Routes, timetables, and maps used to inform these sections do not reflect service changes due to COVID-19. These services are anticipated to return to pre-pandemic conditions as stay-at-home orders and social distancing requirements are lifted.



Existing Bicycle Facilities
Commonwealth Center
Menlo Park, California

Figure
3.1-1

KITTELSON & ASSOCIATES

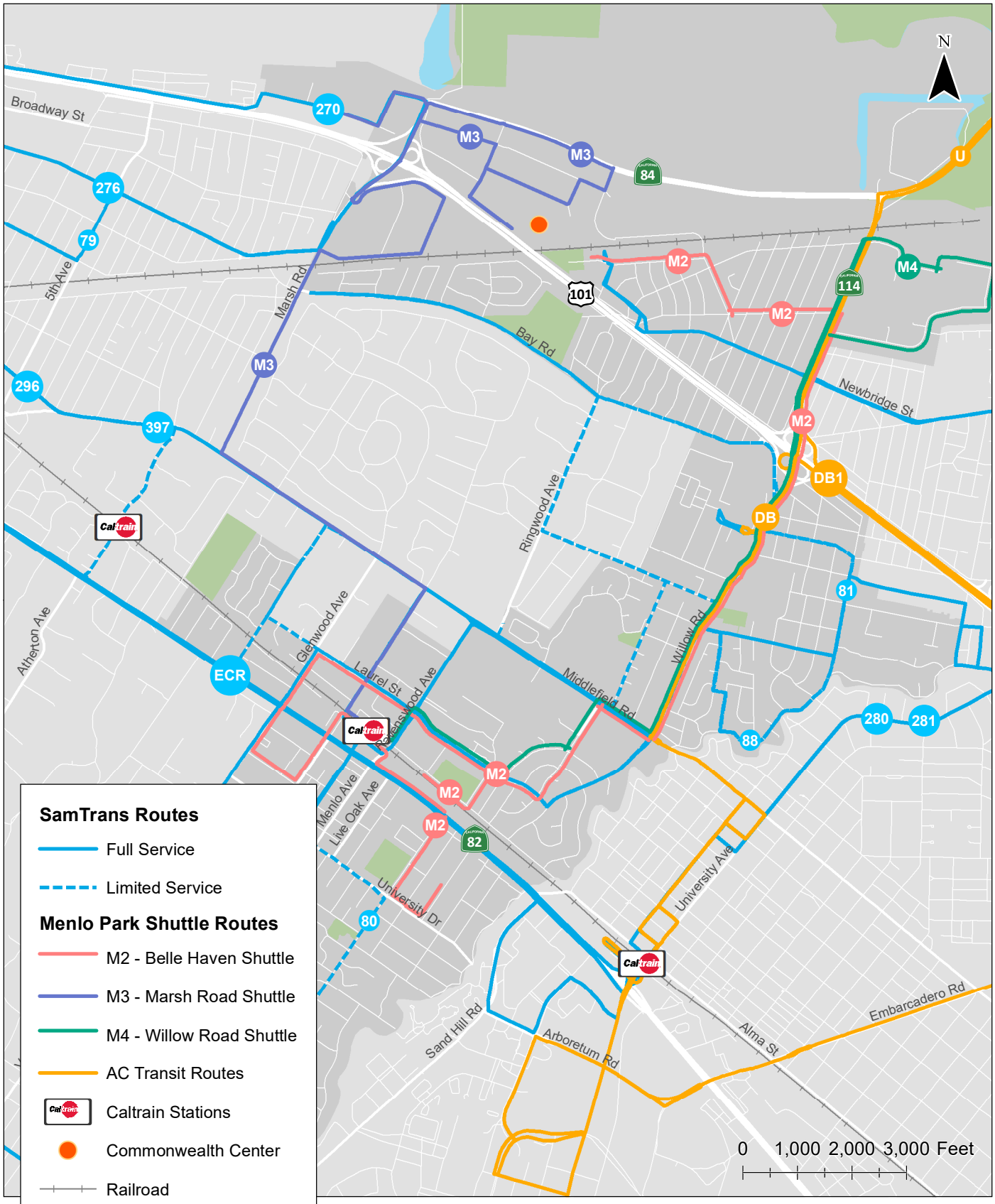
Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
Data Source: MTC Open Data Library, Kittelson & Associates, Inc.

Existing Pedestrian Facilities
Commonwealth Center
Menlo Park, California

Figure
3.1-2

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
Data Source: MTC Open Data Library, Kittelson & Associates, Inc.



Existing Transit Network
Commonwealth Center
Menlo Park, California

Figure
3.1-3

KITTELSON & ASSOCIATES

Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
Data Source: MTC Open Data Library, Kittelson & Associates, Inc.

three free shuttles on weekdays in the Project area to connect the Menlo Park Station with employment centers on the eastern side of the City.[6] Line M3 travels along Marsh Road to the Project site, and Lines M2 and M4 run on Willow Road. Line M2 turns from Willow Road onto Ivy Drive and terminates near Chilco Street, and Line M4 runs in a loop onto O'Brien Drive before terminating at the Menlo Park Station. Line M2 runs approximately once per hour from 6:00 a.m. to 4:00 p.m. Line M3 and Line M4's schedules are synchronized with the Caltrain schedule and run from approximately 7:00 a.m. to 10:30 a.m. and 3:00 p.m. to 6:30 p.m.

Caltrain Local and Express trains stop at the Menlo Park Station located east of El Camino Real (SR 82) at Santa Cruz Avenue.[7] From Menlo Park Station, the Project site can be reached by transferring to SamTrans Routes 296 and 85 or the City of Menlo Park Shuttles. Four northbound trains and six southbound trains stop at Menlo Park between 7:00 a.m. and 9:00 a.m. Six northbound trains and three southbound trains stop at Menlo Park between 4:00 p.m. and 6:00 p.m. As a commuter train service, headways vary from 15 minutes to 40 minutes in the peak periods. On Saturdays, a total of 24 trains stop at the Menlo Park Station. On Sundays, 20 trains stop at Menlo Park Station.

SamTrans operates the following five bus routes within the study area:[8]

- **Route 270** stops at the Redwood City Transit Center and Kaiser Hospital and travels along Bay Road onto Marsh Road before continuing along Haven Road/Bayshore Road within the Project area. Transfers can be made to SamTrans Routes ECR, 274, 275, 270, 276, 278, 296, and 398 and to Caltrain at the Redwood City Station. Route 270 operates with one-hour headways on weekdays between about 6:00 a.m. and 7:00 p.m.
- **Route 281** connects Menlo Park, East Palo Alto, and Palo Alto and stops at Kelly Park, Onetta Harris Community Center, and Stanford Shopping Center. Transfers can be made to SamTrans Routes ECR, 280, 296, the Dumbarton Express, Caltrain at the Palo Alto Station, Stanford University shuttle Marguerite, and Santa Clara VTA. On weekdays, it operates with 20-minute headways in the a.m. and p.m. peak hours and runs every 30 minutes to one hour outside of peak periods. On Saturdays, headways are 30 minutes, and on Sundays, headways are 40 minutes.

  Route 296 serves Redwood City, Atherton, Menlo Park, and East Palo Alto and stops at the Caltrain Stations in Redwood City, Menlo Park, and Palo Alto. In the Project area, Route 296 travels along Middlefield Road, onto Willow Road, and continues on Bay Road. Transfers can be made to SamTrans Routes ECR, 270, 274, 275, 276, 278, 280, 281, 286, and 398 and to Caltrain. On weekdays, the route operates with 20-minute headways, and on weekends the route operates approximately every 30 minutes.
- **Route 397** provides all-nighter service from Downtown San Francisco to Palo Alto every day. In Menlo Park, the route travels along Middlefield Road, and transfers can be made to Caltrain, Amtrak, Santa Clara VTA, BART, AC Transit, Muni, and Golden Gate Transit. Three northbound buses depart Palo Alto once per hour between 12:45 a.m. and 2:45 a.m., and four southbound buses depart San Francisco once per hour between 1:00 a.m. and 4:00 a.m.

[6] Menlo Park, City of. 2020. Shuttle Services. Available: www.menlopark.org/156/Shuttle-services. Accessed: June 7, 2022.

[7] Caltrain. 2022. Schedules. Available: www.caltrain.com/schedules.html. Accessed: June 7, 2022.

[8] San Mateo County Transit District (SamTrans). 2022. Schedules & Maps. Available: www.samtrans.com/schedulesandmaps.html. Accessed: June 7, 2022.

- **Route ECR** runs along the El Camino Real from Daly City to Palo Alto. During the a.m. and p.m. peak hours and in the midday, the route operates with 15-minute headways. In nighttime hours, the route operates with 30-minute headways. On weekends, Route ECR runs every 20 to 30 minutes. Connections are provided to BART and Caltrain, including at the Menlo Park Station.

Seven SamTrans routes provide limited service to schools on weekdays in the study area. Each route runs one bus in the a.m. drop-off period and the p.m. pick-up period, with the exception of Route 79 that runs two buses in the a.m. period and two buses in the p.m. period and Route 80 that runs only one bus in the p.m. period. The a.m. drop-off period is approximately 7:00 a.m. to 9:00 a.m., and the p.m. pick-up period is approximately 3:00 p.m. to 4:00 p.m. Buses reflect regularly scheduled early release days (on Wednesday, Thursday, or both days) from 1:00 p.m. to 3:00 p.m. These routes are described below:

- **Route 79** serves the Kennedy School in Redwood City and terminates at the edge of Menlo Park's city boundaries west of the Project site. Transfers can be made to SamTrans Routes ECR, 275, and 276, and buses run to reflect early release day on Thursday.
- **Route 80** serves Oak Knoll School and Hillview Middle School in Menlo Park. Transfers can be made to SamTrans Routes 82, 83, 84, and 286, and buses run to reflect early release day on Thursday.
- **Route 82** and **Route 83** both serve Hillview Middle School. Transfers can be made to Caltrain at the Menlo Park Station and to SamTrans Routes 80, 82, 83, 84, 88, 286, and 296, and buses run to reflect early release day on Wednesday and Thursday.
- **Route 84** serves Hillview Middle School. Transfers can be made to Caltrain at the Atherton Station (on weekends only) and Menlo Park Station and to SamTrans Route 296, and buses run to reflect early release day on Wednesday and Thursday.
- **Route 88** serves Encinal Elementary School. Transfers can be made to SamTrans Routes 82, 83, 84, 286, and 296, and buses run to reflect early release day on Thursday.
- **Route 286** operates only during a.m. and p.m. peak hours and provides service to Menlo-Atherton High School, Corte Madera School, and the Menlo Park Caltrain Station. Transfers can be made to SamTrans Routes 80, 82, 83, 84, 85, 87, 296, and ECR and to Caltrain at the Menlo Park Station, and buses run to reflect early release day on Wednesday and Thursday.

AC Transit operates the following two bus transit routes in the study area:[9]

- **Line "U"** serves Stanford University, Palo Alto, Newark, the Centerville District, and Fremont. Within the Project area, the route runs on Willow Road and US 101. The route connects with several other routes in Fremont, Newark, and Palo Alto. The route stops at the Stanford Oval, Ardenwood Park & Ride facility, Fremont/Amtrak Centerville train station, and Fremont BART station. The U Line operates about every 30 minutes between 6:00 a.m. and 9:00 a.m. and 3:00 p.m. and 6:00 p.m.
- **Dumbarton Express (DB, DB1)**, which is administered by AC Transit, connects Palo Alto, East Palo Alto, Menlo Park, and Union City in the East Bay. In the Project area, the routes travel along University Avenue, US 101, and Willow Road onto SR 84. The stop closest to the Project site is at Willow Road and Hamilton Avenue. The Dumbarton Express operates between approximately 5:00 a.m. and 8:00 p.m. in the westbound direction and between approximately 6:00 a.m. and 9:00 p.m. in the eastbound direction. From 5:00 a.m. to 9:00 a.m. and 4:00 p.m. to 8:00 p.m., the bus arrives about every 20 minutes.

[9] Alameda-Contra Costa County Transit District (AC Transit). 2022. Maps & Schedules. Available: www.actransit.org/maps. Accessed: June 7, 2022.

Analysis Scope and Methodology

For purposes of disclosing potential transportation impacts, projects in the City of Menlo Park use the City's current TIA Guidelines to ensure compliance with both State and local requirements.[10] Up until July 1, 2020, the City's TIA Guidelines used roadway congestion or LOS as the primary study metric. However, SB 743 required OPR to establish a new metric for identifying and mitigating transportation impacts within CEQA in an effort to meet the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. OPR identified VMT as the required transportation metric and beginning July 1, 2020, VMT (not LOS) is the legally required threshold for transportation impacts pursuant to CEQA.

Adoption of a local VMT threshold requires City Council approval and on June 23, 2020, the Menlo Park City Council approved the VMT thresholds for incorporation into the updated TIA Guidelines and subsequently updated those VMT thresholds on January 11, 2022.[11] The VMT thresholds adopted in June 2020 that were in place at the time of the NOP for the EIR were used in this analysis for purposes of determining potentially significant environmental impacts. Consistent with the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA,[12] a project's cumulative impacts are based on an assessment of whether 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 probable future projects." A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact.

Under the City's TIA Guidelines, some projects are anticipated to result in less-than-significant transportation impacts without the need to prepare a detailed analysis due to their smaller project size, location, or project type. The Proposed Project would not meet the exemption criteria for the following reasons, and a VMT analysis is, therefore, required:

- Small projects. The Proposed Project would generate more than 100 vehicle trips per day.
- Local serving retail. The Proposed Project does not include local serving retail.
- Residential/office. The Proposed Project is not located in a low-VMT area.
- Affordable housing. The Proposed Project would not provide 100 percent affordable housing units.
- Other project types. The Proposed Project would not include local serving public facilities and would not meet the definition of "other project types."

Vehicle miles traveled per person (or per capita) is a measurement of the amount and distance that a resident, employee, or visitor drivers, accounting for the number of passengers within a vehicle. Many interdependent factors affect the amount and distance a person might drive. In particular, the built environment affects how many places a person can access within a given distance, time, and cost, using different ways of travels (e.g., private vehicle, public transit, bicycling, walking, etc.). Typically, low-density development located at great distances from other land uses and in areas with few options for ways of travel provides less access than a location with high density, mix of land uses, and numerous ways of travel. Therefore, low-density development without a diverse mix of land uses and a lack of transportation options typically generates more VMT compared to a similarly sized development located in an area with a greater

[10] Menlo Park, City of. 2020a, op. cit.

[11] Menlo Park, City of. 2022. *City Council Meeting Agenda*. Available: https://beta.menlopark.org/files/sharedassets/public/agendas-and-minutes/city-council/2022-meetings/agendas/20220111-city-council-agenda-packet.pdf#page=229. Accessed: June 6, 2022..

[12] California Office of Planning and Research. 2018, op. cit.

mix of uses and transportation options. Additionally, land uses that reflect a more balanced jobs-housing ratio result in lower per capita VMT. The adoption of VMT as the new CEQA transportation metric is intended to encourage complimentary infill developments in areas traditionally dominated by one single land use (e.g., a residential project in an area dominated by office buildings), which could potentially reduce VMT, and infill development in transit-rich areas.

The Proposed Project is located within the Bayfront Area of Menlo Park. The majority of the Bayfront Area is made up of the City's industrial and business park land uses and includes the City's entire existing M-2 (General Industrial) Zoning district, along with some high-density residential land uses. The Bayfront Area contains major regional transportation links, including US 101, Bayfront Expressway, Willow Road, and University Avenue, all of which are heavily utilized corridors that are challenging to cross and act as barriers for biking and walking. The 2016 General Plan update to the Land Use and Circulation Elements and corresponding rezoning of land in the Bayfront Area (referred to as ConnectMenlo) was designed to change the land use and circulation patterns in the Bayfront Area to create a built environment that supports live/work/play with increased density and diversity of uses and a street network that supports safe and sustainable travel. Vehicle miles traveled estimates are sensitive to changes in land use and in general, land uses that reflect a more balanced jobs-housing ratio result in lower per capita VMT. Therefore, implementation of the land use and transportation changes described in ConnectMenlo would reduce the vehicle miles traveled within the Bayfront Area compared to existing conditions. The expected reduction in VMT per capita identified in the ConnectMenlo EIR[13] is due to the planned addition of housing in a jobs-rich area, which results in trip-making behavior, travel characteristics, and resulting trip lengths.

The Proposed Project is one of the first office projects proposed in the Bayfront Area since the rezoning of the Project site from M-2 (General Industrial) to O-B (Office Bonus) in late 2016. As a result, the Project VMT is being estimated using the City's 2020 travel demand model. A travel demand model is a transportation planning analytical tool that utilizes land use information, travel behavior and other transportation related data to forecast various traffic statistics such as trip generation, trip distribution and trip length. The model is used to estimate average daily VMT within the City's transportation analysis zones (TAZs) and to determine VMT thresholds for residential and commercial land uses that are identified in the City's TIA Guidelines.

The Menlo Park travel demand model encompasses the nine Bay Area counties divided into thousands of TAZs. Each TAZ is comprised of several streets, neighborhoods, or city blocks depending on the geographical features and surrounding land uses. There are approximately 80 TAZs within the boundaries of Menlo Park. As such, when adding or subtracting a project from a TAZ, the internal interactions within the model would impact the entire TAZ as well as surrounding TAZs.

As described above, the new CEQA transportation metric of VMT is intended to encourage complementary infill developments that could potentially reduce VMT to at or below an established significance threshold for commercial and residential uses. City of Menlo Park VMT significance thresholds for individual land uses were established by totaling the VMT by population for that land use in each TAZ for a desired area in the travel demand model. Only TAZs that contain that land use are included in the evaluation. For this Project analysis, there are existing office uses within the Project's TAZ and the existing VMT per employee for the TAZ includes a calculation for office uses specifically.

[13] Menlo Park, City of. 2016. p. 4.13-73. ConnectMenlo: General Plan Land Use and Circulation Elements and M-2 Area Zoning Update, Public Review Draft Environmental Impact Report. Available: https://beta.menlopark.org/Government/Departments/Community-Development/Planning-Division/Comprehensive-planning/ConnectMenlo/Environmental-Impact-Report#section-3. Accessed: June 6, 2022. .

Table 3.1-1 shows the existing average daily VMT per employee for employees within the City of Menlo Park and the City's VMT threshold which is 15 percent below this average. Values in Table 3.1-1 are used to evaluate Project-specific VMT impacts.

Table 3.1-1. Average Regional Vehicle Miles Traveled per Employee

Land Use	Citywide Average	VMT Threshold (15 Percent Below Citywide Average)
Employment (per employee)	14.9	12.6

Source: Menlo Park Travel Demand Model (2020); Menlo Park Transportation Impact Analysis Guidelines (2020)

Regulatory Setting

The following Federal, State, regional, County of San Mateo and local transportation plans, policies, and regulations guide transportation planning in Menlo Park.

Federal Regulations

This section summarizes applicable Federal regulations guiding transportation planning in Menlo Park.

Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency of the United States Department of Transportation responsible for the federally funded roadway system, including the interstate highway network and portions of the primary State highway network, such as Interstate 280 (I-280).

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the US Access Board, an independent Federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, and pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. These guidelines would apply to proposed roadways in the study area.

State Regulations

This section summarizes applicable State regulations guiding transportation planning in Menlo Park.

California Department of Transportation

Caltrans is responsible for planning, design, construction, and maintenance of all interstate freeways and State routes. Caltrans sets design standards for State roadways that may be used by local governments. Caltrans requirements are described in their Guide for Preparation of Traffic Impact Studies,[14] which covers the information needed for Caltrans to review the impacts to State highway facilities; including freeway segments, on- and off-ramps, and signalized intersections.

[14] California Department of Transportation. 2002. Guide for the Preparation of Traffic Impact Studies. December.

Senate Bill 375

As a means to achieve the statewide emission reduction goals set by AB 32 or The California Global Warming Solutions Act of 2006, SB 375 or "The Sustainable Communities and Climate Protection Act of 2008," directs the California Air Resources Board (CARB) to set regional targets for reducing GHG emissions from cars and light trucks. Using the template provided by the State's Regional Blueprint program to accomplish this goal, SB 375 seeks to align transportation and land use planning to reduce VMT through modified land use patterns.

There are five basic directives of the bill: 1) creation of regional targets for GHG emissions reductions from cars and light-duty vehicles ; 2) a requirement that regional planning agencies create a Sustainable Communities Strategy (SCS) to meet those targets (or an Alternative Planning Strategy if the strategies in the SCS would not reach the target set by CARB); 3) a requirement that regional transportation funding decisions be consistent with the SCS; 4) a requirement that the Regional Housing Needs Allocation numbers for municipal general plan housing element updates must conform to the SCS; and 5) CEQA exemptions and streamlining for projects that conform to the SCS. The implementation mechanism for SB 375 that applies to land uses in Menlo Park is "Plan Bay Area 2050" adopted by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) in 2021 (see below).

Senate Bill 743

Senate Bill 743 (CEQA section 21099(b)(1)) requires that the State Office of Planning and Research develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." CEQA section 21099(b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to CEQA section 21099(b)(1), automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA.

In January 2016, the Office of Planning and Research published for public review and comment a Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA recommending that transportation impacts for projects be measured using a VMT metric.[15] In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the section implementing SB 743 (section 15064.3). The Office of Planning and Research developed a Technical Advisory on Evaluating Transportation Impacts in CEQA, which contains OPR's technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures.[16]

Regional Regulations

This section summarizes applicable regional regulations guiding transportation planning in Menlo Park.

[15] California Office of Planning and Research. 2016. Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, Implementing Senate Bill 743 (Steinberg, 2013). January 20.

[16] California Office of Planning and Research. 2018, op. cit.

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is responsible for planning, coordinating, and financing transportation projects in the nine-county Bay Area. The local agencies that comprise these nine counties help the MTC prioritize projects based on need, feasibility, and conformance with federal and local transportation policies. In addition to coordinating with local agencies, the MTC distributes State and federal funding through the Regional Transportation Improvement Program (RTIP).

Plan Bay Area

Plan Bay Area 2050 is a State-mandated, integrated long-range transportation and land use plan. As required by SB 375, all metropolitan regions in California must complete a Sustainable Communities Strategy as part of a Regional Transportation Plan. This strategy integrates transportation, land use and housing to meet greenhouse gas reduction targets set by the California Air Resources Board. The plan meets those requirements. In addition, the plan sets a roadmap for future transportation investments and identifies what it would take to accommodate expected growth. The plan neither funds specific transportation projects nor changes local land use policies.

In the Bay Area, the Metropolitan Transportation Commission and the Association of Bay Area Governments adopted the latest plan in 2021. Under Plan Bay Area 2050's strategies, just under half of all Bay Area households would live within one half-mile of frequent transit by 2050, with this share increasing to over 70% for households with low incomes. Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecasted to lower the share of Bay Area residents that drive to work alone from 50% in 2015 to 33% in 2050. Greenhouse gas emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the state mandate of a 19% reduction in per capita emissions by 2035.

Under the previous Plan Bay Area 2040, to meet the greenhouse gas reduction targets, that plan identifies priority development areas. The agencies estimate approximately 77 percent of housing and 55 percent of job growth will occur in the priority development areas between 2010 and 2040. The Project site is not located within a priority development area.

City/County Association of Governments of San Mateo County (C/CAG) Congestion Management Program

The purpose of the Congestion Management Plan (CMP) is to identify strategies to respond to future transportation needs, develop procedures to alleviate and control congestion, and promote countywide transportation solutions. In order to monitor attainment of the CMP, the C/CAG adopted the roadway LOS standards. The LOS standards established for San Mateo County vary by roadway segments and conform to current land use plans and development differences among the coast, bayside, older downtowns, and other areas of San Mateo County. While the intersections associated with the development of the Project are monitored by C/CAG for compliance with CMP standards, the intersections are within the City of Menlo Park's city limits and are subject to the VMT standards implemented by the City.

San Mateo County Comprehensive Bicycle and Pedestrian Plan

The San Mateo County Comprehensive Bicycle and Pedestrian Plan was developed by the C/CAG with support from the San Mateo County Transportation Authority to address the planning, design, funding, and implementation of bicycle and pedestrian projects countywide. The following are the relevant goals and policies:

Goal 2: More People Riding and Walking for Transportation and Recreation

Policy 2.6: Serve as a resource to county employers on promotional information and resources related to bicycling and walking.

Goal 4: Complete Streets and Routine Accommodation of Bicyclists and Pedestrians

Policy 4.1: Comply with the complete streets policy requirements of Caltrans and the Metropolitan Transportation Commission concerning safe and convenient access for bicyclists and pedestrians, and assist local implementing agencies in meeting their responsibilities under the policy.

Policy 4.5: Encourage local agencies to adopt policies, guidelines, standards, and regulations that result in truly bicycle-friendly and pedestrian-friendly land use developments, and provide them technical assistance and support in this area.

Policy 4.6: Discourage local agencies from removing, degrading or blocking access to bicycle and pedestrian facilities without providing a safe and convenient alternative.

City of Menlo Park

This section summarizes applicable City of Menlo Park regulations guiding transportation planning in the city.

ConnectMenlo

Transportation-related policies are included in the Circulation Element of ConnectMenlo. These sections were added to ConnectMenlo to provide a framework for transportation planning within the City and were most recently updated in 2016 when the City updated its Land Use and Circulation Elements. The framework is based on existing practices and future considerations in land use, population, and regional transportation. The ConnectMenlo Circulation Element establishes a vision for the City with goals related to sustainability, reliability, and safety for all modes of transportation. The transportation goals for Menlo Park that relate to the Proposed Project include:

Goal CIRC-1: Provide and maintain a safe, efficient, attractive, user-friendly circulation system that promotes a healthy, safe, and active community and quality of life throughout Menlo Park.

Policy CIRC-1.7: Bicycle Safety. Support and improve bicyclist safety through roadway maintenance and design efforts.

Policy CIRC-1.8: Pedestrian Safety. Maintain and create a connected network of safe sidewalks and walkways within the public right of way and ensure that appropriate facilities, traffic control, and street lighting are provided for pedestrian safety and convenience, including for sensitive populations.

Goal CIRC-2: Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders.

Policy CIRC-2.1: Accommodating All Modes. Plan, design and construct transportation projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists, people with mobility challenges, and persons of all ages and abilities.

Policy CIRC-2.2: Livable Streets. Ensure that transportation projects preserve and improve the aesthetics of the city.

Policy CIRC-2.3: Street Classification. Utilize measurements of safety and efficiency for all travel modes to guide the classification and design of the circulation system, with an emphasis on providing "complete streets" sensitive to neighborhood context.

Policy CIRC-2.4: Equity. Identify low-income and transit-dependent districts that require pedestrian and bicycle access to, from, and within their neighborhoods.

Policy CIRC-2.5: Neighborhood Streets. Support a street classification system with target design speeds that promotes safe, multimodal streets, and minimizes cut-through and high-speed traffic that diminishes the quality of life in Menlo Park's residential neighborhoods.

Policy CIRC-2.7: Walking and Biking. Provide for the safe, efficient, and equitable use of streets by pedestrians and bicyclists through appropriate roadway design and maintenance, effective traffic law enforcement, and implementation of the City's Comprehensive Bicycle Development Plan and the El Camino Real/Downtown Specific Plan.

Policy CIRC-2.8: Pedestrian Access at Intersections. Support full pedestrian access across all legs of signalized intersections.

Policy CIRC-2.9: Bikeway System Expansion. Expand the citywide bikeway system through appropriate roadway design, maintenance, effective traffic law enforcement, and implementation of the City's Comprehensive Bicycle Development Plan, and the El Camino Real/Downtown Specific Plan.

Policy CIRC-2.10: Green Infrastructure. Maximize the potential to implement green infrastructure by: a) Reducing or removing administrative, physical, and funding barriers; b) Setting implementation priorities based on stormwater management needs, as well as the effectiveness of improvements and the ability to identify funding; and c) Taking advantage of opportunities such as grant funding, routine repaving or similar maintenance projects, funding associated with Priority Development Areas, public private partnerships, and other funding opportunities.

Policy CIRC-2.11: Design of New Development. Require new development to incorporate design that prioritizes safe pedestrian and bicycle travel and accommodates senior citizens, people with mobility challenges, and children.

Policy CIRC-2.14: Impacts of New Development. Require new development to mitigate its impacts on the safety (e.g., collision rates) and efficiency (e.g., vehicle miles traveled (VMT) per capita) of the circulation system. New development should minimize cut-through and high-speed vehicle traffic on residential streets; minimize the number of vehicle trips; provide appropriate bicycle, pedestrian, and transit connections, amenities and improvements in proportion with the scale of Projects; and facilitate appropriate or adequate response times and access for emergency vehicles.

Goal CIRC-3: Increase mobility options to reduce traffic congestion, greenhouse gas emissions, and commute travel time.

Policy CIRC-3.1: Vehicle Miles Traveled. Support development and transportation improvements that help reduce per capita vehicle miles traveled.

Policy CIRC-3.2: Greenhouse Gas Emissions. Support development, transportation improvements, and emerging vehicle technology that help reduce per capita greenhouse gas emissions.

Policy CIRC-3.4: Level of Service. Strive to maintain level of service (LOS) D at all City-controlled signalized intersections during peak hours, except at the intersection of Ravenswood Avenue and Middlefield Road and at intersections along Willow Road from Middlefield Road to US 101. The City shall work with Caltrans to ensure that average stopped delay on local approaches to State-controlled signalized intersections does not exceed LOS E.

Goal CIRC-4: Improve Menlo Park's overall health, wellness, and quality of life through transportation enhancements.

Policy CIRC-4.1: Global Greenhouse Gas Emissions. Encourage the safer and more widespread use of nearly zero-emission modes, such as walking and biking, and lower emission modes like transit, to reduce greenhouse gas emissions.

Policy CIRC-4.2: Local Air Pollution. Promote non-motorized transportation to reduce exposure to local air pollution, thereby reducing risks of respiratory diseases, other chronic illnesses, and premature death.

Policy CIRC-4.3: Active Transportation. Promote active lifestyles and active transportation, focusing on the role of walking and bicycling, to improve public health and lower obesity.

Policy CIRC-4.4: Safety. Improve traffic safety by reducing speeds and making drivers more aware of other roadway users.

Goal CIRC-6: Provide a range of transportation choices for the Menlo Park community.

Policy CIRC-6.1: Transportation Demand Management. Coordinate Menlo Park's transportation demand management efforts with other agencies providing similar services within San Mateo and Santa Clara Counties.

Policy CIRC-6.4: Employers and Schools. Encourage employers and schools to promote walking, bicycling, carpooling, shuttles, and transit use.

Menlo Park Municipal Code

The Proposed Project is located in the Office Bonus (O-B) zoning district. The Zoning Ordinance requires the development and implementation of a Transportation Demand Management (TDM) plan:

Chapter 16.45.090 Transportation Demand Management. As stated in Chapter 16.45.090 of the City's Zoning Ordinance, all new construction, regardless of size, and building additions of 10,000 or more square feet of gross floor area, or a change of use of 10,000 or more square feet of gross floor area shall develop a TDM plan necessary to reduce associated vehicle trips to at least 20 percent below standard generation rates for uses on the individual Project site. Each individual applicant is required to prepare its own TDM plan and provide an analysis to the satisfaction of the City's Transportation Manager of the impact of that TDM program. The TDM plan prepared by the Project Sponsor for this Proposed Project is included in Appendix 3.1-2.

The Transportation Demand Management Program Guidelines provide options for the City to mitigate the traffic impacts of new developments.[17] The guidelines include an extensive list of TDM measures accompanied with the number of trips credited to each measure and the rationale for each measure. The list of recommended measures and the associated trip credit is maintained by C/CAG as part of the San Mateo County CMP and is as follows:

[17] Menlo Park, City of. 2015. Transportation Demand Management Program Guidelines. Adopted July 21. Available: www.menlopark.org/DocumentCenter/View/303/Transportation-Demand-Management-TDM-Guidelines. Accessed: June 6, 2022.

Eligible TDM measures may include but are not limited to:

- Participation in a local Transportation Management Association (TMA) that provides documented, ongoing support for alternative commute programs;
- Appropriately located transit shelter(s);
- Preferred parking for carpools or vanpools;
- Designated parking for car-share vehicles;
- Requiring drivers to pay directly for using parking facilities;
- Public and/or private bike share program;
- Provision or subsidy of carpool, vanpool, shuttle, or bus service, including transit passes for site occupants;
- Required alternative work schedules and/or telecommuting for non-residential uses;
- Passenger loading zones for carpools and vanpools at main building entrance;
- Safe, well-lit, accessible, and direct route to the nearest transit or shuttle stop or dedicated, fully accessible bicycle and pedestrian trail;
- Car share membership for employees or residents;
- Emergency Ride Home programs;
- Green Trip Certification.

Measures receiving TDM credit shall be:

- Documented in a TDM plan developed specifically for each project and noted on Project site plans, if and as appropriate;
- Guaranteed to achieve the intended reduction over the life of the development, as evidenced by annual reporting provided to the satisfaction of City's Transportation Manager;
- Required to be replaced by appropriate substitute measures if unable to achieve intended trip reduction in any reporting year;
- Administered by a representative whose updated contact information is provided to the Transportation Manager.

Complete Streets Policy. The Complete Streets Policy was adopted by the City in 2013. The policy confirms the City's commitment to provide safe and convenient travel along and across streets for all users. It also requires Complete Streets infrastructure to be considered for incorporation into all significant planning, funding, design, approval, and implementation processes for new, maintenance, and retrofit construction.

Neighborhood Traffic Management Plan. The Neighborhood Traffic Management Plan was developed to mitigate the adverse effects of increased vehicle speeds and vehicle volumes on neighborhood streets. The primary goal of this plan is to correct unsafe conditions at prioritized locations with higher incidences and higher speeds. The plan recommends two levels of measures, Level I "Express" and Level II. Level I "Express" measures include education and enforcement initiatives and Level II measures are traffic management features that can be implemented to divert traffic and to restrict access to certain properties. The traffic management measures that need to be implemented are recommended by City staff at the request of the community.

Transportation Master Plan. The Transportation Master Plan provides the ability to identify appropriate projects to enhance the transportation network, conduct community engagement to ensure such projects meet the community's goals and values, and prioritize projects based on need for implementation. It serves as an update to the City's Bicycle and Sidewalk Plans. The City Council adopted the Transportation Master Plan on November 17, 2020.

Transportation Impact Fee. The City of Menlo Park initiated a Transportation Impact Fee (TIF) codified in Municipal Code Chapter 13.26 to help fund transportation improvements as new development occurs in the city. New development and redevelopment projects are subject to the TIF to contribute to the cost of new transportation infrastructure associated with the development. The types of developments that are subject to transportation impact fees are:

- All new development in all land use categories identified in the City's zoning ordinance
- Any construction adding additional floor area to a lot with an existing building
- New single-family and multi-family dwelling units
- Changes of use from one land use category to a different land use category that requires planning commission approval

The TIF provides a mechanism to modernize the City's fee program to collect funds towards construction of the improvements identified and prioritized in the Transportation Master Plan.

Transportation Impact Analysis Guidelines. The City's TIA Guidelines specify which projects must complete a TIA prior to obtaining approval from the City. The City requires that a TIA be prepared by a qualified consultant selected by the City and paid for by the project applicant. The TIA Guidelines also specify the requirements of what analyses must be included in a TIA. The TIA Guidelines require analysis of both VMT and LOS transportation metrics independently using the methodologies approved by the City for all projects except those meeting established exemption criteria.

Impacts and Mitigation Measures

This section analyzes the potential of the Proposed Project to result in impacts on the transportation network. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact is significant. As previously discussed, the analysis below makes reference to, and tiers from, the ConnectMenlo Final EIR, where appropriate. The findings presented in the ConnectMenlo Final EIR are presented prior to the Project impact analysis. The latter part of this section presents the impacts associated with implementation of the Proposed Project and identifies mitigation measures, as appropriate.

Significance Criteria

The Proposed Project would result in a significant impact related to transportation if it would:

- Conflict with an applicable plan, ordinance, or policy, including the congestion management program, addressing all components of the circulation system;
- Exceed an applicable VMT threshold of significance;
- Substantially increase hazards due to a design feature or incompatible uses; or
- Result in inadequate emergency access

ConnectMenlo Final EIR Impacts

The following provides an overview of impacts to transportation and circulation and required mitigation measures as identified in the ConnectMenlo Final EIR. Transportation and circulation impacts assessed in the ConnectMenlo Final EIR included the Project site as part of numerous other parcels analyzed. The ConnectMenlo Final EIR identified the following program-level impacts related to implementation of the General Plan (Land Use and Circulation Elements) and M-2 Area Zoning Update.

Roadway Segments

As noted in the Regulatory Framework, CEQA no longer considers automobile delay (including roadway segment LOS) impacts. The following ConnectMenlo Final EIR impact summary is provided for informational purposes.

The ConnectMenlo Final EIR found that the implementation of ConnectMenlo would generate additional motor vehicle trips on the local roadway network, resulting in significant impacts on some study segments. Implementation of Mitigation Measure TRANS-1a would reduce the impacts, but not to a less-than-significant level. Mitigation Measure TRANS-1a would require the widening of impacted roadway segments at appropriate locations throughout the City to add travel lanes and capacity to accommodate the increase in net daily trips. Implementation of Mitigation Measure TRANS-1a could require additional right-of-way that is not under the jurisdiction of the City and is considered infeasible in most locations. Additionally, widening of roadways may lead to other secondary impacts such as induced travel demand. Furthermore, fully mitigating the impact to less-than-significant levels would be infeasible because it would require eliminating most of the year 2040 traffic growth on impacted segments. For these reasons, impacts to roadway segments were considered significant and unavoidable.

Intersections

As noted in the Regulatory Framework, CEQA no longer considers automobile delay (including intersection LOS) an impact. The following ConnectMenlo Final EIR impact summary is provided for informational purposes.

The ConnectMenlo Final EIR found that the implementation of ConnectMenlo would generate additional motor vehicle trips on the local roadway network, resulting in significant impacts on some study intersections. Implementation of Mitigation Measure TRANS-1b would reduce the impacts, but not to a less-than-significant level. Mitigation Measure TRANS-1b would update the City's TIF program to secure funding mechanism for future roadway and infrastructure improvements to mitigate impacts from future projects based on the current standards at the time the Final EIR was certified, but would not reduce the impact to less-than-significant levels. The City could not guarantee improvements at the impacted intersections because the nexus study had not been prepared, some improvements may cause secondary environmental impacts that would need to be addressed prior to construction, and some impacted intersections are within the jurisdiction of the City of East Palo Alto and Caltrans. For these reasons, impacts to intersections were considered significant and unavoidable. Subsequently, the City's TIF program and Transportation Master Plan were updated and approved by the City Council. The identified roadway improvements would not fully mitigate the intersection impacts identified in the ConnectMenlo Final EIR.

Routes of Regional Significance

As noted in the Regulatory Framework, CEQA no longer considers automobile delay (including routes of regional significance) impacts. The following ConnectMenlo Final EIR impact summary is provided for informational purposes.

The ConnectMenlo Final EIR found that the implementation of ConnectMenlo would generate additional motor vehicle trips on the local roadway network, resulting in significant impacts on routes of regional significance. Implementation of Mitigation Measure TRANS-1a would reduce the impacts but not to a less-than-significant level. Mitigation Measure TRANS-1a would require the widening of impacted roadway segments at appropriate locations throughout the City to add travel lanes and capacity to accommodate the increase in net daily trips. Implementation of Mitigation Measure TRANS-1a could require additional right-of-way that is not under the jurisdiction of the City and is limited by downstream capacity on facilities such as US 101 and Dumbarton Bridge. As such, the mitigation was considered infeasible in most locations. For these reasons, impacts to routes of regional significance were considered significant and unavoidable.

Bicycle and Pedestrian Facilities

The ConnectMenlo Final EIR found that the new development potential under ConnectMenlo would generate new transit riders, bicyclists, and pedestrians. Implementation of ConnectMenlo and other existing City standards and regulations would include goals, policies, and programs that provide for an integrated network of bicycle and pedestrian facilities as well as for the needs of transit users. Further, future development would be concentrated on sites either already developed and/or in close proximity to existing development, and would be served by existing transit, bicycle, and pedestrian infrastructure. However, much of the anticipated development under the proposed project would occur in the Bayfront Area, including properties located east of US 101 that are not adequately connected to the pedestrian and bicycle circulation network locally or west of US 101, and properties bordering existing streets such as Constitution Drive that lack continuous sidewalks. Therefore, the ConnectMenlo EIR found that implementation of ConnectMenlo would not provide adequate pedestrian or bicycle facilities to connect to the area-wide circulation system. Mitigation Measure TRANS-6a would update the City's TIF program to secure a funding mechanism for future pedestrian and bicycle improvements to mitigate impacts from future projects (based on the current standards at the time the Final EIR was certified), but would not reduce the impact to less than significant levels. The nexus study (pursuant to AB 1600) had not yet been prepared, the City could not guarantee improvements, and no additional mitigation measures were feasible and available. For these reasons, implementation of ConnectMenlo would not provide adequate pedestrian or bicycle facilities to connect to the area-wide circulation system and impacts were considered significant and unavoidable. Subsequently, the City's TIF program was updated and approved by the City Council. The City's Transportation Master Plan has been updated, and the City Council approved the updated plan on November 17, 2020. The identified bicycle and pedestrian improvements would not be fully funded by the TIF, and therefore the ConnectMenlo impact would remain significant and unavoidable.

Transit

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would generate a substantial increase in transit riders that could not be adequately serviced by existing public transit services, and the implementation of ConnectMenlo would generate demand for transit services at sites more than one-quarter mile from existing public transit routes. Implementation of Mitigation Measure TRANS-6b would

reduce the impacts, but not to a less-than-significant level. Mitigation Measure TRANS-6b would update the City's existing Shuttle Fee program to guarantee funding for operations of City-sponsored shuttle service that is necessary to mitigate impacts from future projects based on the then current City standards. The nexus study had not yet been prepared, the City could not guarantee improvements, and no additional mitigation measures were feasible and available. For these reasons, impacts to transit were considered significant and unavoidable.

The Final EIR found that implementation of ConnectMenlo would result in increased peak hour traffic delay at intersections on Bayfront Expressway, University Avenue, and Willow Road that could decrease the performance of transit service and increase the cost of transit operations. Mitigation Measure Trans-6c would reduce these impacts, but not to a less-than-significant level. Mitigation Measure Trans-6c could result in the provision of transit service on the Dumbarton Corridor and could mitigate the impact. However, because provision of Dumbarton transit service would require approval of other public agencies and is not under the jurisdiction of the City of Menlo Park, implementation of this mitigation could not be guaranteed. No additional mitigation measures were feasible and available. For these reasons, impacts to transit were considered significant and unavoidable.

Vehicle Miles Traveled

Up until July 1, 2020, the City's TIA Guidelines used roadway congestion or LOS as the primary study metric. The City Council approved the VMT thresholds for incorporation into the updated TIA Guidelines on June 23, 2020 and subsequently updated these thresholds on January 11, 2022. As a result, while the ConnectMenlo Final EIR did include an evaluation of VMT impacts, the VMT standards applied in the ConnectMenlo Final EIR differ from those adopted under the updated TIA Guidelines. The ConnectMenlo analysis included a discussion of VMT per service population citywide for each scenario and applied the regional thresholds from the 2013 Plan Bay Area EIR. The ConnectMenlo analysis did not analyze VMT per capita or per employee for individual (residential, office, or retail) land uses.

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would not exceed the VMT threshold of significance and would result in less-than-significant impacts with respect to VMT.

Hazards

The ConnectMenlo Final EIR found that future developments and roadway improvements would be designed according to City standards and subject to existing regulations that are aimed at reducing hazardous conditions with respect to circulation. Additionally, future development would be concentrated on sites that are already developed where impacts related to incompatible traffic-related land uses would not likely occur. Therefore, the adoption of ConnectMenlo would result in less-than-significant impacts with respect to hazards due to design features or incompatible uses.

Emergency Access

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would include policies that would ensure efficient circulation and adequate access are provided in the City, which would help facilitate emergency response. Additionally, future development would be concentrated on sites that are already developed where impacts related to inadequate emergency access would not likely occur. Implementation of ConnectMenlo would result in less-than-significant impacts with respect to inadequate emergency access.

Cumulative Conditions

The ConnectMenlo Final EIR found that the cumulative impacts to the transportation network would be the same as those identified above for each topic.

Proposed Project

As discussed in Chapter 2, *Project Description*, the Project proposes to develop a 249,500 square foot, four-story office building and a parking structure with four above-grade levels and one partial below-grade level. The Project would be accessible by vehicles from two access points including the main access point at Commonwealth Drive in the southwest corner of the site and the secondary access point at Jefferson Drive in the northern portion of the site. Entrances to the parking structure would be provided along the internal street east of Buildings 2 and 3. A loading dock would be provided on the east side of Building 3.

The main pedestrian entry to Building 3 would be along the northern frontage, the side closest to Jefferson Drive and building entries would also be provided on all other building sides. Pedestrian walkways would be included between the proposed building and parking structure and the existing buildings. Several walkways with enhanced paving at crosswalks would traverse the Campus Property, leading from the proposed building to the parking structure.

New bicycle and pedestrian connections would be established to connect the Campus Property to neighboring parcels. The Project includes constructing a secondary public path north of Building 3 and paseos north and west of Building 3. New multi-use paths also would be established around the parking structure, one of which would connect to a future City bicycle/pedestrian path.

In addition to 46 existing bike parking spaces (24 Class I spaces in Building 1 and 22 Class II bicycle racks), the Project would add 45 protected storage enclosure spaces in the garage and 15 onsite bicycle lockers, for a total of 106 bicycle parking spaces on the Campus Property.

Development of the Proposed Project would remove the majority of the existing 866 surface parking spaces to construct Building 3, the parking structure, and Jefferson Park. After implementation of the Proposed Project, there would be 1,531 vehicle parking spaces onsite (191 surface parking spaces and 1,340 spaces in the proposed parking structure). This parking total does not include the additional 23 parking stalls for Jefferson Park use during the hours of park operation.

Proposed Transportation Demand Management Plan

The proposed TDM program described in Chapter 2, *Project Description* includes implementation of the following measures in an effort to reduce Project-generated vehicle trips and encourage travel by other modes:

- Commute trip reduction program including a transportation coordinator, online kiosk information center, new tenant employee information packet and kick-off event, trip planning resources, Try Transit Program, 511 Carpool Calculator, and certified participation in Commute.org or Transportation Management Associations (TMA);
- Subsidized transit passes, such as the GoPass, and pre-tax transportation benefits, such as the Clipper Direct program, will be provided to employees, as well as an annual shuttle fee will be paid to support increasing shuttle service;

- Bicycle facilities including secure and convenient bicycle storage and parking, bike rack parking spaces in well-lit areas, showers and changing rooms, and bicycle resources, such as bicycle maps, free bike buddy matching, and links to bicycle organizations;
- Pedestrian facilities throughout the Commonwealth development, including convenient direct pedestrian access to the surrounding street network as well as clearly defined, well-lit, and continuous walkways through the site;
- Preferential carpool parking, guaranteed ride home program, carpooling and vanpooling programs through ride-matching services, carpool incentive programs, preferential carpool parking, vanpool formation incentives, vanpool seat subsidies, and vanpool participant rebates;
- Provision of on-site amenities, telecommuting infrastructure, and alternative work schedule infrastructure.

Trip Generation

The vehicle trip generation estimates for the Project were calculated using the trip generation rates from the most recent ITE Trip Generation Manual (10th Edition, 2018).[18] The land use category for General Office Building (ITE Code 710) was applied for this analysis. Consistent with the Menlo Park TIA Guidelines,[19] vehicle trip reductions were taken to account for the proposed TDM Plan required by the Menlo Park Municipal Code. As shown in Table 3.1-5, the proposed TDM plan would achieve more than 20 percent reduction in vehicle trips and vehicle miles traveled. However, for purposes of a more conservative estimate of Project-generated vehicle trips, and consistent with City guidance, the trip reduction credit for LOS analysis is limited to 20 percent. Therefore, a 20 percent reduction in trips was applied to account for the proposed TDM plan which would comply with City Ordinance 1026 and achieve the required minimum of 20 percent reduction of daily and peak hour vehicle trips.[20] The actual trip reductions anticipated from the TDM plan are used in the VMT analysis.

As shown in Table 3.1-2, the Proposed Project would generate 4,298 net new daily vehicle trips, 333 net new a.m. peak hour vehicle trips (276 inbound trips and 57 outbound trips) and 450 net new p.m. peak hour vehicle trips (90 inbound trips and 360 outbound trips). The vehicle trip generation estimates used in this analysis have been approved by the City of Menlo Park.

Trip Distribution

Project-generated vehicle traffic was distributed to the surrounding roadway network based on travel surveys and existing traffic patterns. Project-added traffic volumes at the study intersections are included in Appendix 3.1-1 of this EIR.

Project Impacts

This section analyzes potential Project-specific and cumulative impacts to the transportation and circulation network in the study area.

[18] Institute of Transportation Engineers. 2018. Trip Generation Manual, 10th Edition.

[19] Menlo Park, City of. 2020a, op. cit.

[20] Menlo Park, City of. Ordinance No. 1026. Available: www.menlopark.org/DocumentCenter/View/12605/1026---GP-MU-District?bidId=. Accessed: June 6, 2022.

Table 3.1-2. Vehicle Trip Generation Estimates

Land Use (ITE Code)	Size	Daily Trips	A.M. Peak Hour Trips			P.M. Peak Hour Trips		
			In	Out	Total	In	Out	Total
General Office Building (710)	1,996 employees	5,373	345	71	416	112	450	562
TDM Plan Reduction	-20%	-1,075	-69	-14	-83	-22	-90	-112
Net New Vehicle Trips		**4,298**	**276**	**57**	**333**	**90**	**360**	**450**

Source: ITE Trip Generation Manual, 10th Edition (2018)

Notes: The trip generation estimates apply the fitted curve equation for the peak hour of adjacent street traffic and assumes a load factor of 1 employee per 125 square feet with 249,500 square feet of office space.

Impact TRA-1: The Proposed Project would not conflict with an applicable plan, ordinance, or policy, including the congestion management program, concerning components of the circulation system (LTS)

This section discusses the Proposed Project's impacts related to conflicts with applicable plans, ordinances, and policies. As discussed in more detail below, for CEQA purposes, the Project would be consistent with applicable plans, ordinances, and policies that address the circulation system as shown in Table 3.1-3. Therefore, potential impacts would be less than significant.

Table 3.1-3. Project Compliance with Applicable Transportation-Related Plans, Ordinances and Policies

Plan/Ordinance/Policy	Project Consistency
Plan Bay Area 2040 and 2050	***Consistent***. The Proposed Project would be consistent with the Plan Bay Area 2040 and 2050 goals and performance targets for transportation system effectiveness. The Proposed Project would develop new office space and a vehicle parking structure. The Proposed Project would also develop and implement a TDM plan to provide trip reduction measures and reduce Project-generated vehicle traffic in and around the Project site. In addition, the Project site is served by public transit facilities and would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single occupancy vehicles. The nearest bus stop is currently served by the M3-Marsh Road Shuttle, which is a free shuttle service with timed connections to many of the a.m. and p.m. peak-hour trains at the Menlo Park Caltrain station in both the northbound and southbound directions. The existing shuttle service includes a stop at 149 Commonwealth Drive, less than 100 feet from the site. The Menlo Park and Palo Alto Caltrain stations are located within three miles of the Project site to the south. In addition, SamTrans Route 270, which runs on a loop from the Redwood City Transit Center to Atherton with hour-long headways, provides service from a stop located approximately on mile to the north on Haven Avenue. The Proposed Project would also provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single occupancy vehicles.

Plan/Ordinance/Policy	Project Consistency
C/CAG Congestion Management Program	***Consistent (TDM Plan); Not Consistent (CMP LOS).*** The Proposed Project would include more than 50,000 square feet and is anticipated to generate more than 500 daily trips and a TDM Checklist is required. Additionally, the Proposed Project would generate more than 100 vehicle trips during the weekday PM peak hour and a C/CAG Congestion Management Program (CMP) roadway segment level of service analysis is required. *TDM Checklist.* The TDM Plan prepared for the Proposed Project is included as Appendix 3.1-2. The TDM Plan and accompanying checklist demonstrates that the developer and/or tenants will reduce the demand for all new peak hour trips in accordance with the C/CAG requirement. *CMP LOS Analysis*. As summarized in the TIA, the study roadway segments would exceed the applicable LOS thresholds with Project related trips. However, LOS is no longer a CEQA threshold and this analysis is provided for informational and planning purposes only. Refer to the Non-CEQA Analysis section for additional discussion.
San Mateo County Comprehensive Bicycle and Pedestrian Plan	
Policy 2.6: Serve as a resource to county employers on promotional information and resources related to bicycling and walking.	***Consistent***. The Proposed Project would implement a TDM plan that includes subsidized transit passes, carpool/vanpool matching services, and emergency ride-home programs. The Proposed Project will also include bicycle storage, showers, and changing rooms to encourage the use of modes of transportation other than vehicles. As such, the Proposed Project would serve as a resource to employers on promotional information and resources related to bicycling and walking.
Policy 4.1: Comply with the complete streets policy requirements of Caltrans and the Metropolitan Transportation Commission concerning safe and convenient access for bicyclists and pedestrians and assist local implementing agencies in meeting their responsibilities under the policy.	***Consistent.*** The Proposed Project would provide safe and convenient access for bicyclists and pedestrians and comply with the complete streets policy requirements of Caltrans and MTC.
City of Menlo Park Circulation Element of the General Plan, Transportation Element	
Policy CIRC-1.7: Bicycle Safety. Support and improve bicyclist safety through roadway maintenance and design efforts.	***Consistent.*** The Proposed Project would provide safe and convenient access for bicyclists and improve bicyclist safety through design efforts, including provision of secured short- and long-term on-site bike parking.
Policy CIRC-1.8: Pedestrian Safety. Maintain and create a connected network of safe sidewalks and walkways within the public right of way and ensure that appropriate facilities, traffic control, and street lighting are provided for pedestrian safety and convenience, including for sensitive populations.	***Consistent.*** The Proposed Project would provide safe and convenient access for pedestrians and improve pedestrian safety through design efforts, including the addition of paved walkways between the Project office building and parking structure, paved walkways that connect to neighboring parcels, and a multi-use path that would connect to a future City pedestrian and bicycle path.

Plan/Ordinance/Policy	Project Consistency
Policy CIRC-2.1: Accommodating All Modes. Plan, design and construct transportation projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists, people with mobility challenges, and persons of all ages and abilities.	***Consistent.*** The Proposed Project would plan, design, and construct site access and circulation to provide safe and convenient access for pedestrians, bicyclists, transit riders, drivers, people with mobility challenges, and people of all ages and abilities.
Policy CIRC-2.2: Livable Streets. Ensure that transportation projects preserve and improve the aesthetics of the city.	***Consistent.*** The Proposed Project would plan, design, and construct site improvements that preserve and improve the aesthetics of the site.
Policy CIRC-2.7: Walking and Biking. Provide for the safe, efficient, and equitable use of streets by pedestrians and bicyclists through appropriate roadway design and maintenance, effective traffic law enforcement, and implementation of the City's Comprehensive Bicycle Development Plan and the El Camino Real/ Downtown Specific Plan.	***Consistent.*** The Proposed Project would provide for the safe, efficient, and equitable use of streets by pedestrians and bicyclists through appropriate design and maintenance. The Proposed Project would not conflict with the City's Transportation Master Plan (which supersedes the Comprehensive Bicycle Development Plan) and the bicycle lanes proposed along the Project's frontage on Constitution Drive have been constructed. The Proposed Project would provide safe and convenient access for bicyclists and improve bicyclist safety through design efforts, including provision of short- and long-term on-site bike parking. The Proposed Project would provide safe and convenient access for pedestrians and improve pedestrian safety through design efforts, including the addition of paved walkways in and around the Campus Property.
Policy CIRC-2.8: Pedestrian Access at Intersections. Support full pedestrian access across all legs of signalized intersections.	***Consistent.*** The Proposed Project would not introduce features that preclude or interfere with pedestrian access at signalized intersections.
Policy CIRC-2.10: Green Infrastructure. Maximize the potential to implement green infrastructure by: a) Reducing or removing administrative, physical, and funding barriers; b) Setting implementation priorities based on stormwater management needs, as well as the effectiveness of improvements and the ability to identify funding; and c) Taking advantage of opportunities such as grant funding, routine repaving or similar maintenance projects, funding associated with Priority Development Areas, public private partnerships, and other funding opportunities.	***Consistent.*** The Proposed Project would maximize the potential to implement green infrastructure through landscaping and open space on site. Stormwater management for the Project site would include low impact development (LID) features.

Plan/Ordinance/Policy	Project Consistency
Policy CIRC-2.11: Design of New Development. Require new development to incorporate design that prioritizes safe pedestrian and bicycle travel and accommodates senior citizens, people with mobility challenges, and children.	***Consistent.*** The Proposed Project would plan, design, and construct site access and circulation to provide safe and convenient access for pedestrians, bicyclists, transit riders, drivers, people with mobility challenges, and people of all ages and abilities. Pedestrian walkways would be clearly marked, separated from vehicle travel paths as much as possible, and meet ADA requirements.
Policy CIRC-2.14: Impacts of New Development. Require new development to mitigate its impacts on the safety (e.g., collision rates) and efficiency (e.g., VMT per capita) of the circulation system. New development should minimize cut-through and high-speed vehicle traffic on residential streets; minimize the number of vehicle trips; provide appropriate bicycle, pedestrian, and transit connections, amenities and improvements in proportion with the scale of proposed projects; and facilitate appropriate or adequate response times and access for emergency vehicles.	***Consistent.*** The Proposed Project is evaluated in this EIR for impacts on safety through an assessment of site access and circulation for all modes and for impacts on VMT, as well as emergency response times. As discussed, these impacts would be less than significant. Additionally, the Proposed Project would implement a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the Project site. The Proposed Project would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single occupancy vehicles.
Policy CIRC-3.1: Vehicle Miles Traveled. Support development and transportation improvements that help reduce per capita vehicle miles traveled.	***Consistent.*** The Proposed Project has developed and would implement a TDM plan to provide trip reduction measures and reduce vehicle traffic resulting from the Proposed Project. In addition, the Proposed Project would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single occupancy vehicles, and is in a location that is served by transit.
Policy CIRC-3.2: Greenhouse Gas Emissions. Support development, transportation improvements, and emerging vehicle technology that help reduce per capita greenhouse gas emissions.	***Consistent.*** The Proposed Project would meet the City's requirements for electric vehicle charging stations. The Proposed Project would include EV chargers to encourage the use of zero-emission vehicles.The Proposed Project is evaluated for compliance with SB 375 requirements through an analysis of greenhouse gas emissions in Section 4.4, Greenhouse Gas Emissions of this EIR. All impacts related to greenhouse gas emissions would be less than significant.
Policy CIRC-4.1: Global Greenhouse Gas Emissions. Encourage the safer and more widespread use of nearly zero-emission modes, such as walking and biking, and lower emission modes like transit, to reduce greenhouse gas emissions.	***Consistent.*** The Proposed Project would develop and implement a TDM plan and provide bicycle and pedestrian facilities to encourage the safer and more widespread use of nearly zero-emission modes, such as walking and biking, and lower emission modes like transit, to reduce greenhouse gas emissions. The Proposed Project also would include EV chargers to encourage the use of zero-emission vehicles.
Policy CIRC-4.2: Local Air Pollution. Promote non-motorized transportation to reduce exposure to local air pollution, thereby reducing risks of respiratory diseases, other chronic illnesses, and premature death.	***Consistent.*** The Proposed Project would develop and implement a TDM plan and provide bicycle and pedestrian facilities to promote non-motorized transportation to reduce exposure to local air pollution, thereby reducing risks of respiratory diseases, other chronic illnesses, and premature death.

Plan/Ordinance/Policy	Project Consistency
Policy CIRC-4.3: Active Transportation. Promote active lifestyles and active transportation, focusing on the role of walking and bicycling, to improve public health and lower obesity.	***Consistent.*** The Proposed Project would implement a TDM plan and provide bicycle and pedestrian facilities to promote active lifestyles and active transportation, focusing on the role of walking and bicycling, to improve public health and lower obesity. For example, the Proposed Project includes bike storage and shower facilities to minimize barriers to biking to work.
Policy CIRC-4.4: Safety. Improve traffic safety by reducing speeds and making drivers more aware of other roadway users.	***Consistent.*** The Proposed Project would include paved walkways for pedestrians and pedestrian and bicycle connections to neighboring parcels to promote safe travel.
Policy CIRC-6.1: Transportation Demand Management. Coordinate Menlo Park's transportation demand management efforts with other agencies providing similar services within San Mateo and Santa Clara Counties.	***Consistent.*** The Proposed Project has developed and would implement a TDM plan that includes: bicycle storage and parking, showers and changing rooms, on-site pedestrian circulation, carpool and vanpool programs, emergency ride-home programs, on-site amenities, and subsidized transit passes to employees.
Policy CIRC-6.4: Employers and Schools. Encourage employers and schools to promote walking, bicycling, carpooling, shuttles, and transit use.	***Consistent.*** The Proposed Project has developed and would implement a TDM plan that includes measures encouraging employers to promote walking, bicycling, carpooling, shuttles, and transit use.
City of Menlo Park Municipal Code Sections 16.43.100 and 16.45.090	***Consistent.*** The Proposed Project has developed and would implement a TDM plan that reduces vehicle trips to at least 20 percent below standard generation rates for uses on the Project site and includes: subsidized transit passes, carpool and vanpool programs with ride matching services and ridesharing services, bicycle parking spaces in secured bike storage rooms and outdoor bike parking, paved walkways through the Project site, and on-site amenities including showers and changing rooms.
City of Menlo Park Transportation Master Plan	***Consistent.*** The Proposed Project does not include any modifications that would conflict with projects and recommendations identified in the Transportation Master Plan. At locations where the Proposed Project would cause an intersection to operate in non-compliance with General Plan Policy CIRC-3.4 and the TIA Guidelines, modifications are identified that are consistent with recommendations identified in the Transportation Master Plan.
City of Menlo Park Transportation Impact Fee	***Consistent.*** The Proposed Project is subject to the TIF to contribute to the cost of new transportation infrastructure associated with the development.

Source: Compiled by Kittelson & Associates, Inc. (2022).

As part of the City's entitlement process, the Proposed Project would be required to comply with existing regulations, including General Plan policies and zoning regulations. The Proposed Project would be reviewed in accordance with the City's Public Works Department Transportation Program standards and guidelines, and the department would provide oversight engineering review to ensure that the Proposed Project is constructed according to City specifications.

The Proposed Project would provide adequate bicycle and pedestrian infrastructure and would represent an overall improvement to bicycle and pedestrian access and circulation. Pedestrian walkways with enhanced paving[21] would be provided between the proposed building and parking structure and the existing buildings. New bicycle and pedestrian connections would be established to connect to neighboring parcels and a secondary public path north of Building 3, and paseos north and west of Building 3 would be provided. New multi-use paths also would be established around the proposed parking structure, one of which would connect to a future City bicycle/pedestrian path.

The Proposed Project would promote bicycle use by providing long-term and short-term bicycle parking spaces, as well as showers and changing rooms. The Proposed Project would meet the Zoning Ordinance requirements for vehicle and bicycle parking and implement transportation demand management measures in an effort to reduce Project-generated vehicle trips and encourage travel by other modes.

For these reasons, the Proposed Project would be consistent for CEQA purposes with applicable plans, ordinances, and policies outlined in the Regulatory Framework section, and this impact would be ***less than significant***.

Impact TRA-2: The Proposed Project could exceed an applicable VMT threshold of significance (LTS/M)

This section discusses the Proposed Project's potential impacts related to VMT. As discussed in more detail below, implementation of the Proposed Project would exceed an applicable VMT threshold of significance without mitigation. This impact would be significant.

The City uses the following quantitative thresholds of significance to address the substantial additional VMT significance criterion:

- A residential-type project would exceed the existing regional household VMT per capita minus 15 percent.
- An office-type project would exceed the existing regional employment VMT per employee minus 15 percent.
- A retail-type project would result in a net increase in total VMT.
- For mixed-use projects, components are analyzed independently against the appropriate threshold.

Because the Proposed Project would be an office development, VMT per employee is the metric used to evaluate potential impacts related to VMT. VMT per employee is an efficiency metric, not an absolute numerical value (such as total VMT on a road network). Efficiency metrics provide measurements in terms of rates or ratios. As such, VMT per employee applies to the Proposed Project without regard to the VMT generated by the previously existing land uses, and VMT metrics cannot be summed across developments or land use types because they employ a denominator (per capita or per employee) and relate to a specific TAZ or other geographic area.

[21] Paving can consist of traditional paving materials such as concrete or asphalt or non-traditional, enhanced paving, materials such as natural stone pavers, unit concrete pavers, bricks, textured and colored concrete, stamped asphalt, and concrete with exposed or special aggregate or other finish treatments. Enhanced paving treatments can enhance the aesthetics of public spaces in a city, give circulation areas a stronger sense of place, and enhance the hierarchy of public spaces, and can be a functional stormwater amenity as well as an aesthetic enhancement, when designed as permeable paving.

Table 3.1-4 shows the citywide average daily VMT per employee, the VMT threshold (15 percent below citywide average), and the existing conditions for TAZ 3069, the TAZ in which the Project site is located.

Table 3.1-4. Existing Vehicle Miles Traveled per Employee Threshold

Land Use	Citywide Average	VMT Threshold (15 Percent Below Citywide Average)	Project Transportation Analysis Zone (TAZ 3069)
Employment (per employee)	14.9	12.6	16.7

Source:
Menlo Park Travel Demand Model (2020)
Menlo Park Transportation Impact Analysis Guidelines (2020)

As shown in Table 3.1-4, the average daily VMT per employee for office land uses within the Project site's TAZ is 16.7, which is higher than the threshold of significance of 12.6.[22] The VMT reported for the Project site's TAZ does not account for the Project's proposed TDM plan, which is required and included as part of the Proposed Project. The TDM plan would need to achieve a minimum 24.6 percent reduction[23] in vehicle miles traveled to reduce the Project's potential impacts to less than significant levels, which is above the 20 percent reduction in vehicle trips required by the Zoning Ordinance. Proposed TDM measures and estimated VMT reductions applicable to the Project's office use are described in this section and summarized in Table 3.1-5.

- On-site bicycle parking. Having accessible, secure, and convenient places to store bicycles encourages employees to bike to and from the Project site. The Proposed Project would provide bicycle facilities including secure and convenient bicycle storage and parking, bike rack parking spaces in well-lit areas, and showers and changing rooms. Implementation of this TDM measure would support a mode shift from single-occupancy vehicle trips to bicycle trips for people within biking distance (up to around five miles for a one-way trip) of the Project site.
- Pedestrian network improvements. Having a complete and connected pedestrian network encourages employees to walk to and from the Project site. The Proposed Project would provide facilities throughout the Commonwealth development. Implementation of this TDM measure would support a mode shift from single-occupancy vehicle trips to walking trips for people within walking distance (up to around one mile for a one-way trip) of the Project site.
- Commute trip reduction marketing. Information sharing and marketing are important components to successful vehicle trip and VMT reduction strategies. The Proposed Project would implement carpooling and vanpooling programs through free ride-matching services, carpool incentive programs, vanpool formation incentives, vanpool seat subsidies, and vanpool participant rebates, as well as an Emergency Ride Home program. Implementation of this TDM measure would support a mode shift from single-occupancy vehicle trips to carpool trips, which would affect trips of all lengths.

[22] The percent above the threshold of significance is calculated as the VMT per employee within the Project TAZ divided by the VMT per employee threshold, or existing citywide VMT per employee minus 15 percent, minus 1 and multiplied by 100. The calculation is: (16.7 / 12.6 – 1) * 100 = 32.5 percent

[23] The percent VMT reduction requirement is calculated as 1 minus the VMT per employee threshold, or existing citywide VMT per employee minus 15 percent, divided by the VMT per employee within the Project TAZ and multiplied by 100. The calculation is: (1 – 12.6 / 16.7) * 100 = 24.6 percent

- Subsidized or discounted transit program. Provision of transit subsidies or discounts encourages employees to take transit to and from the Project site. The Proposed Project would provide subsidized transit passes to new employees to encourage use of Caltrain and the M3-Marsh Road Shuttle. Implementation of this TDM measure would support a mode shift from single-occupancy vehicle trips to transit, which would affect trips of all lengths.

Table 3.1-5. Proposed Project TDM Measures and Estimated VMT Reduction

TDM Measure (CAPCOA ID)[a]	Range of Vehicle Miles Traveled Reduction[b]	Applied VMT Reduction[c]
Implement Commute Trip Reduction Program (T-6)[d]	Up to 26.0%	16.5%
Implement Subsidized or Discounted Transit Program (T-9)[e]	Up to 5.5%	5.5%
Provide Ridesharing Program (T-8)[f]	Up to 8.0%	8.0%
Provide End-of-Trip Bicycle Facilities (T-10)[g]	Up to 4.4%%	4.4%
Pedestrian Network Improvements (T-18)[h]	Up to 6.4%	3.0%
Total VMT Reduction	**—**	**37.4%**

Source: Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (California Air Pollution Control Officers Association, December 2021).

Notes:

a. CAPCOA ID references the strategy as identified in the CAPCOA report.

b. Range of vehicle miles traveled reduction obtained from CAPCOA.

c. Vehicle miles traveled reduction rate determined based on the estimated level of adoption and aggressiveness of implementation of a given strategy and account for the implementation of other TDM program elements so as not to overestimate vehicle miles traveled reduction for the overall program. Consistent with CAPCOA, the adjustment factor from vehicle trips to VMT is 1. This assumes that all vehicle trips will average out to typical trip length. Thus, it can be assumed that a percentage reduction in vehicle trips will equal the same percentage reduction in VMT.

d. Commute Trip Reduction Program. The vehicle miles traveled reduction rate selected is based on the anticipated effectiveness of the commute reduction strategies being promoted and the assumption that 100% of employees are eligible with 63% utilization. Commute trip reduction marketing elements include: on-site amenities, transit information, on-site transportation kiosk, and programs to support carpooling and commute alternatives.

e. Subsidized Transit. The vehicle miles traveled reduction rate selected is based on the assumption that 100% of employees are eligible and the transit subsidy would cover 100% of the cost of a monthly transit pass.

f. Provide Ridesharing Program. The vehicle miles traveled reduction rate selected assumes 100% eligibility and classifies the Project site's location as "urban".

g. End-of-Trip Bicycle Facilities. The Proposed Project will include long and short-term bicycle parking and a bike repair station along with other supporting facilities and amenities including showers and lockers.

h. Pedestrian Network Improvements. The Proposed Project will complete and connect the pedestrian network with new sidewalks and street trees and a pedestrian plaza with internal circulation around the apartment and office buildings and increase the length of pathways on the site.

As shown in Table 3.1-5, implementation of the TDM plan would result in an estimated reduction of approximately 37.4 percent of the VMT generated by the proposed office use.

The applied VMT reduction rate for the Proposed Project is based on the anticipated level of adoption and aggressiveness of implementation of a given strategy. The estimated VMT reduction accounts for the mode shift and resulting trip lengths by mode. For example, provision of bike parking would shift short vehicle trips to bike trips and would achieve an estimated VMT reduction of less than one percent while commute trip reduction program would shift a portion of vehicle trips of any length to carpool trips and would achieve an estimated VMT reduction of four percent. The range of effectiveness for VMT reductions identified for each measure is based on information included in the California Air Pollution Control

Officers Association (CAPCOA), Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health Equity (CAPCOA report).[24] The quantification methods provided in the CAPCOA report are based on an extensive literature review and are appropriate for use in this Project-level analysis. The selection of the applied VMT reduction rate is also informed by the TDM Encyclopedia, published by the Victoria Transport Policy Institute.

As shown in Table 3.1-5, the current estimated daily VMT per employee for existing office land uses within the Project sites TAZ is 16.7, which is higher than the citywide VMT of 14.9 and above the threshold of significance of 12.6. Therefore, the Proposed Project would have a potentially significant impact related to VMT without mitigation.

MITIGATION MEASURES. Implementation of Mitigation Measure TRA-1.1 would ensure that appropriate TDM measures were implemented and effective to achieve a minimum of 24.6 percent reduction in VMT per employee and reduce this impact to a less-than-significant level. As outlined below, these measures would include those proposed by the Project's TDM Plan included in Appendix 3.1-2 of this EIR, as well as additional measures which could include, but are not limited to, charging employees for parking, subsidized or discounted transit, employee telecommuting and alternative work schedules, and limitations on provided parking.

TRA-1.1 The Project Sponsor shall implement TDM measures set forth in the TDM Plan included in Appendix 3.1-2 of this EIR to reduce VMT generated by the Proposed Project to achieve a minimum 24.6 percent reduction in VMT. The TDM plan would need to achieve a minimum 24.6 percent reduction in VMT per employee, which exceeds the 20 percent reduction in VMT required by the Zoning Ordinance.[25] The Proposed Project's TDM plan is designed to achieve an estimated reduction of approximately 36.4 percent VMT per employee. Annual monitoring and reporting as required pursuant to Menlo Park Municipal Code Section 16.44.090 (2)(B) will be required to ensure a minimum of a 24.6 percent reduction in VMT is achieved for the life of the Project.

The Project Sponsor shall select and implement appropriate TDM measures and retain a transportation consultant to monitor and report effectiveness of the measures on an annual basis. The TDM plan shall be guaranteed to achieve the intended reduction over the life of the development, as evidenced by annual reporting provided to the satisfaction of the City's Public Works Director or designee. TDM measures are required to be replaced by appropriate substitute measures if the intended trip reduction is not achieved in any reporting year. The range of effectiveness for VMT reductions identified for each measure is based on information included in the California Air Pollution Control Officers Association (CAPCOA), Quantifying Greenhouse Gas Mitigation Measures report (CAPCOA report), as may be updated or amended from time to time. As shown in Table 3.1-6, implementation of the Proposed Project's TDM Plan and additional TDM measures would exceed the required reduction in VMT for the Proposed Project's office use. The Proposed Project's TDM Plan would achieve an estimated reduction of approximately 37.4 percent VMT per employee and the VMT generated by the Proposed Project's use would be reduced below the City's threshold of 12.6 and therefore with implementation of Mitigation Measure TRA-1.1 the VMT generated by the proposed Project's office use would result in a ***less than significant with mitigation*** impact.

[24] California Air Pollution Control Officers Association. 2021. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health Equity.* Available: https://www.caleemod.com/documents/handbook/full_handbook.pdf. Accessed: June 6, 2022. December.

[25] Implementation of the TDM plan would replace a minimum of 20 percent of the project-generated vehicle trips by increasing walking, cycling, transit use, and telecommuting. However, due to limitations in research and data, the effect of this mode shift on VMT cannot be calculated. Therefore, the analysis assumes the reduction in VMT would be equivalent to the reduction in vehicle trips. In other words, the average vehicle trip length would not change.

Table 3.1-6. TDM Measures for Office Uses

TDM Measure (CAPCOA ID)[a]	Range of Vehicle Miles Traveled Reduction[b]	Applied VMT Reduction[c]
Proposed TDM Plan		
Implement Commute Trip Reduction Program (T-6)[d]	Up to 26.0%	16.5%
Implement Subsidized or Discounted Transit Program (T-9)[e]	Up to 5.5%	5.5%
Provide Ridesharing Program (T-8)[f]	Up to 8.0%	8.0%
Provide End-of-Trip Bicycle Facilities (T-10)[g]	Up to 4.4%%	4.4%
Pedestrian Network Improvements (T-18)[h]	Up to 6.4%	3.0%
Total VMT Reduction (Proposed TDM Plan)	**—**	**37.4%**
Potential Additional TDM Measures		
Price Workplace Parking (T-12)[i]	Up to 20.0%	20%
Employee Parking Cashout (T-13)[i]	Up to 12.0%	12%
Increase Shuttle Service Frequency (T-26)[i]	Up to 11.3%	—
Total VMT Reduction (Additional Measures)	**—**	**32.0%**

Source: Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (California Air Pollution Control Officers Association, December 2021).

Notes:

a. CAPCOA ID references the strategy as identified in the CAPCOA report.

b. Range of vehicle miles traveled reduction obtained from CAPCOA.

c. Vehicle miles traveled reduction rate determined based on the estimated level of adoption and aggressiveness of implementation of a given strategy and account for the implementation of other TDM program elements so as not to overestimate vehicle miles traveled reduction for the overall program. Consistent with CAPCOA, the adjustment factor from vehicle trips to VMT is 1. This assumes that all vehicle trips will average out to typical trip length. Thus, it can be assumed that a percentage reduction in vehicle trips will equal the same percentage reduction in VMT.

d. Commute Trip Reduction Program. The vehicle miles traveled reduction rate selected is based on the anticipated effectiveness of the commute reduction strategies being promoted and the assumption that 100% of employees are eligible with 63% utilization. Commute trip reduction marketing elements include: on-site amenities, transit information, on-site transportation kiosk, and programs to support carpooling and commute alternatives.

e. Subsidized Transit. The vehicle miles traveled reduction rate selected is based on the assumption that 100% of employees are eligible and the transit subsidy would cover 100% of the cost of a monthly transit pass.

f. Provide Ridesharing Program. The vehicle miles traveled reduction rate selected assumes 100% eligibility and classifies the project site's location as "urban".

g. End-of-Trip Bicycle Facilities. The Project will include long and short-term bicycle parking and a bike repair station along with other supporting facilities and amenities including showers and lockers.

h. Pedestrian Network Improvements. The Project will complete and connect the pedestrian network with new sidewalks and street trees and a pedestrian plaza with internal circulation around the buildings and increase the length of pathways on the site.

i. Effectiveness of these measures depends on level of implementation. For purposes of this example we have assumed the applicant would optimize the price of parking to achieve maximum VMT reductions and we have assumed 100% eligibility for employee parking cashout. The efficacy of shuttle service frequency would depend on the level of service increase and ridership achieved.

Impact TRA-3: The Proposed Project would not substantially increase hazards due to a design feature or incompatible uses (LTS)

This section discusses the potential of the Proposed Project to substantially increase hazards due to a design feature or incompatible use. For purposes of CEQA, hazards refer to engineering aspects of a project (e.g., speed, turning movements, complex designs, substantial distance between street crossings, sight lines) that may cause a greater risk of collisions that result in serious or fatal physical injury than a typical project. This analysis focuses on hazards that could reasonably stem from the Proposed Project itself, beyond collisions that may result from aforementioned non-engineering aspects or the

transportation system as a whole. Therefore, the methodology qualitatively addresses the potential for the Proposed Project to exacerbate an existing or create a new potentially hazardous condition to people walking, bicycling, or driving, or for public transit operations.

The Proposed Project would not alter access to the Campus Property and does not involve any changes to the roadway network outside the Project limits. The Project would provide adequate bicycle and pedestrian infrastructure and would represent an overall improvement to bicycle and pedestrian access and circulation. While there would be a general increase in vehicle traffic from the Proposed Project, the Proposed Project would not create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations. There would be adequate sight lines at the site access points and vehicle driveways and the Proposed Project would provide dedicated and separated facilities for people walking. Additionally, as with current practice, the Proposed Project would be designed and reviewed in accordance with the City's Public Works Department Transportation Program and the department would provide oversight engineering review to ensure that the Proposed Project is constructed according to City specifications. For these reasons, potential impacts related to design features and incompatible uses would be ***less than significant***.

Impact TRA-4: The Proposed Project would not result in inadequate emergency access. (LTS)

This section discusses the potential of the Project to result in inadequate emergency access. Emergency access to the Campus Property would be provided from the existing access points on Commonwealth Drive and Jefferson Drive. Emergency vehicles would enter the Campus Property at Commonwealth Drive and continue along the northern portion of the Campus Property, adjacent to the proposed building, then travel around the building to exit at Jefferson Drive. Fire access to the proposed parking structure would be at both the northern and southern ends. Fire hydrants and fire department connections would be located along the emergency access route in the vicinity of the proposed buildings. Menlo Park Fire District Station 77 is located on Chilco Street, approximately one mile east of the Project site. Although there would be a general increase in vehicle traffic from the Proposed Project, the Proposed Project would not inhibit emergency access to the Project site or materially affect emergency vehicle response out of the station to the station's service area. Development of the Project site, and associated increases in vehicles, pedestrians, and bicycle travel would not substantially affect emergency vehicle response times or access to other buildings or land uses in the area or to hospitals. Project-generated vehicle traffic would not be concentrated on emergency vehicle routes and building and site plans would be reviewed by City Planning, Engineering and Building Departments as well as the Menlo Park Fire Protection District for compliance with the Zoning and Building Code and Engineering Standards, and the Fire Code, further ensuring that emergency access by fire or emergency services personnel would not be impaired. For these reasons, potential impacts related to emergency access and circulation would be ***less than significant***.

Cumulative Impacts

Impacts C-TRA-1. The Proposed Project in combination with other foreseeable projects would not conflict with an applicable plan, ordinance, or policy, including the CMP, concerning all components of the circulation system. (LTS)

Future development would be required to comply with existing regulations, including General Plan policies and zoning regulations that have been prepared to minimize potential impacts related to transportation and circulation. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require the City to annually update the Capital Improvement Program to

reflect City and community priorities for physical projects related to transportation for all travel modes and bi-annually update data regarding travel patterns for all modes to measure circulation system efficiency (e.g., VMT per capita, traffic volumes) and safety (e.g., collision rates) standards, amongst others as listed above. Furthermore, the implementation of zoning regulations would support adequate facilities, and access to transportation.

For these reasons, the Proposed Project, in combination with cumulative projects, would have a ***less-than-significant*** cumulative impact with respect to conflicting with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

Impacts C-TRA-2. The Proposed Project in combination with other foreseeable projects would not exceed an applicable VMT threshold of significance. (LTS/M)

Consistent with the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA,[26] a project's cumulative impacts are based on an assessment of whether 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 probable future projects." A project that falls below an efficiency-based threshold (meaning applying per capita and per employee VMT standards) that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact.

The Proposed Project is consistent with development assumptions included in ConnectMenlo. Implementation of the land use and transportation changes described in ConnectMenlo would create a built environment that supports a live/work/play environment with increased density and diversity of uses and a street network that supports safe and sustainable travel, and is expected to reduce VMT per capita within the Bayfront Area where the Project site is located. Consistent with the findings in the ConnectMenlo Final EIR, the Proposed Project, in combination with cumulative projects, would have a ***less-than-significant*** cumulative impact with respect to VMT.

Impacts C-TRA-3. The Proposed Project in combination with other foreseeable projects would not substantially increase hazards due to a design feature or incompatible uses. (LTS)

Overall, cumulative land use development and transportation projects would promote accessibility for people walking to and through the site by conforming to General Plan policies and Zoning regulations, and by adhering to planning principles that emphasize providing convenient connections and safe routes for people walking, bicycling, driving, and taking transit. Additionally, as with current practice, projects would be designed and reviewed in accordance with the City's Public Works Department Transportation Program and the department would provide oversight engineering review to ensure that the project is constructed according to City specifications. As a result, the cumulative projects would not generate activities that would increase hazards due to a design feature or incompatible use.

For these reasons, the Proposed Project, in combination with cumulative projects, would have a ***less-than-significant*** cumulative impact with respect to design features or incompatible uses.

[26] OPR. 2018, op. cit.

Impacts C-TRA-4. The Proposed Project in combination with other foreseeable projects would not result in inadequate emergency access. (LTS)

Future development as part of the City's project approval process, would be required to comply with existing regulations, including General Plan policies and zoning regulations that have been prepared to minimize potential impacts related to emergency access. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require the City's continued coordination with MPPD and MPFPD to establish circulation standards, adopt an emergency response routes map, and equip all new traffic signals with pre-emptive traffic signal devices for emergency services. Furthermore, the implementation of the zoning regulations would help to minimize traffic congestion that could impact emergency access.

For these reasons, the Proposed Project, in combination with cumulative projects, would have a ***less-than-significant*** cumulative impact with respect to emergency access.

Non-CEQA Analysis

Intersection Level of Service

The findings of the intersection LOS analysis are presented in this section. The analysis scope and methodology, analysis scenarios and data collection, are based on the City's TIA Guidelines and detailed in Appendix 3.1-1.

As stated above, LOS is no longer a CEQA threshold. However, the City's TIA Guidelines require that the TIA also analyze LOS for local planning purposes. The LOS analysis would determine whether the Project traffic would cause an intersection LOS to exceed the City's LOS thresholds or cause either the average delay or average critical delay to exceed the City's intersection delay thresholds under near term and cumulative conditions. The LOS and delay thresholds vary depending on the street classifications as well as whether the intersection is on a State route or not. The City's TIA Guidelines further require an analysis of the Project in relation to relevant policies of the Circulation Element and consideration of specific measures to address noncompliance with local policies which may occur as a result of the addition of Project traffic. The TIA identifies measures that could be applied as conditions of approval that would bring conditions back to pre-Project levels. Although not included in the TIA for purposes of this EIR, an analysis may be prepared separately to determine if there are potential measures that could bring the Project into conformance with Circulation Policy 3.4 (strive to maintain LOS D at all City controlled intersections).[27] Implementation of any such measures would require review and approval by City decision makers.

Level of Service Policy Standard

The following plans, ordinances, or policies are applicable to determine planning consistency and whether decision makers can make the necessary findings to issue entitlements, but are not a CEQA impact.

City of Menlo Park Level of Service Policy

The City of Menlo Park General Plan strives to have all City-controlled signalized intersections maintained at level of service D or better during peak hours, except at the intersection of Ravenswood Avenue and Middlefield Road and the intersections along Willow Road from Middlefield Road to US101. This General Plan LOS policy provides the City discretion to approve development projects that do not meet its preferred LOS standard.

[27] Many intersections do not currently operate at LOS D.

Town of Atherton Level of Service Policy

The circulation element of the Town of Atherton General Plan 2019 provides minimum acceptable level of service standards for the Town facilities by roadway type, with LOS D for highways, LOS D for minor arterials, and LOS C for local roads.

Caltrans Level of Service Policy

Prior to 2020, Caltrans established level of service standards at the transition between LOS C and LOS D on State facilities.[28] On May 20, 2020, Caltrans released a Vehicle Miles Travel-Focused Transportation Impact Study Guide that changes Caltrans' recommended transportation analysis metric to VMT rather than LOS.[29] According to that draft, "Caltrans' primary review focus for a land use project's impacts is now VMT" and Caltrans will focus on whether a local lead agency's CEQA analysis is consistent with OPR's Technical Advisory. For purposes of this study and a consistency with past studies in Menlo Park, the City's LOS standard is also applied to State-controlled intersections while Caltrans LOS standard still applies to ramp intersections.

City/County Association of Governments of San Mateo County (C/CAG) Level of Service Policy

The LOS standards established by the City/County Association of Governments of San Mateo County (C/CAG) vary based on geographic differences to prevent the Congestion Management Program (CMP) facilities to operate at level of service worse than currently anticipated in San Mateo County CMP 2019. The CMP intersection level of service standards were set based on the following considerations:

- LOS F for the intersections operating at LOS F
- LOS E for the remaining intersections

City/County Association of Governments of San Mateo County (C/CAG) Traffic Impact Analysis Policy

C/CAG also adopted Traffic Impact Analysis (TIA) policy[30] to maintain the performance and standards of the CMP roadway network. The following criteria are used to identify if a proposed project would cause freeway segments to be non-compliant with the TIA policy.

- For freeway segments in compliance with C/CAG LOS standard, a project will cause the freeway segment to operate a LOS exceeding the standard adopted by C/CAG.
- For freeway segments in compliance with C/CAG LOS standard, a project traffic and future traffic will cause the freeway segment to operate at LOS exceeding the standard adopted by C/CAG and the proposed project increase traffic demand on the freeway segment by an amount equal to one percent or more of the segment capacity or cause the segment volume-to-capacity ratio to increase by one percent.
- For freeway segments not in compliance with C/CAG LOS standard, a project will add traffic demand equal to one percent or more of the segment capacity or cause the segment volume-to-capacity ratio in increase by one percent.

[28] Caltrans's Guide for the Preparation of Traffic Impact Studies, December 2002.

[29] Caltrans's Vehicle Miles Traveled-Focused Transportation Impact Study Guide, May 20, 2020.

[30] Appendix L, San Mateo County Congestion Management Program 2019. Available: https://ccag.ca.gov/wp-content/uploads/2020/04/2019-CMP-Final-040920.pdf. Accessed: June 6, 2022.

Menlo Park Transportation Impact Analysis Guidelines

Menlo Park Transportation Impact Analysis (TIA) Guidelines provide criteria for identifying the need for modifications to any intersection. The following are the TIA Guidelines standard for the City's intersections.

City arterial intersections – the intersections would be non-compliant with the TIA Guidelines standard if a project traffic would cause:

- Intersections operating at LOS D or better to operate at LOS E or F, OR
- Intersections operating at LOS D or better to increase average delay by more than 23 seconds, OR
- Intersections operating at LOS E or F to increase average delay of vehicles on all critical movements by more than 0.8 seconds.

Local approaches to State-controlled intersections – the intersections would be non-compliant with the TIA Guidelines standard if a project traffic would cause:

- Intersections operating at LOS D or better to operate at LOS E or F, OR
- Intersections operating at LOS D or better to increase average delay by more than 23 seconds, OR
- Intersections operating at LOS E or F to increase delay of vehicles on the most critical movements by more than 0.8 seconds.

Other City Intersections (Collector and Local Streets) – the intersections would be non-compliant with the TIA Guidelines standard if a project traffic would cause:

- Intersections operating at LOS C or better to operate at LOS D, E, or F, OR
- Intersections operating at LOS C or better to increase average delay by more than 23 seconds, OR
- Intersections operating at LOS D or worse to increase average delay of vehicles on all critical movements by more than 0.8 seconds.

For the Town of Atherton, the intersections would be non-compliant with the threshold standard if a project traffic would cause the intersections operating at LOS D or better to operate at LOS E or F, or cause the intersection operating at LOS E or F to increase four seconds of average delay.

For the State-controlled intersections except for ramp intersections, the intersections would be non-compliant with the threshold standard if a project traffic would cause the intersections operating at LOS D or better to operate at worse than LOS D, or cause the intersections operating at LOS D or worse to increase four seconds of average delay.[31]

Near Term (2025) Plus Project Conditions

The analysis in the TIA and summarized in this non-CEQA section is based on the TIA Guidelines for intersection LOS under Near Term (2025) Plus Project Conditions. The LOS definitions, policy standards, and thresholds, the turning movement volumes, lane and roadway configurations, Vistro[32] outputs, and LOS results for the study intersections during the AM and PM peak hours under Near Term (2025) Plus Project Conditions are also presented in the TIA (Appendix 3.1-1).

[31] Commonwealth Corporate Center Project EIR, 2014.

[32] Vistro is a traffic engineering software that allows creation of a transportation network model and applies industry standard methodologies to evaluate signalized and unsignalized intersections.

The Proposed Project would cause the following fifteen study intersections to be non-compliant with the TIA Guidelines standard under Near Term (2025) Plus Project Conditions by causing the intersections to increase either average movement delay or critical movement delay exceeding the threshold established by the TIA Guidelines during at least one peak hour.

- Intersection #8, Chrysler Drive and Constitution Drive (Menlo Park): AM and PM
- Intersection #9, Chrysler Drive and Jefferson Drive (Menlo Park): AM and PM
- Intersection #10, Chrysler Drive and Independence Drive (Menlo Park): AM
- Intersection #12, Chilco Street and Constitution Drive (Menlo Park): PM
- Intersection #13, Willow Road and Bayfront Expressway (State): AM and PM
- Intersection #14, Willow Road and Hamilton Avenue (Local Approaches to State): AM and PM
- Intersection #15, Willow Road and Ivy Drive (Local Approaches to State): AM and PM
- Intersection #16, Willow Road and O'Brien Drive (Local Approaches to State): AM and PM
- Intersection #17, Willow Road and Newbridge Street (Local Approaches to State): AM and PM
- Intersection #18, Willow Road and Bay Road (Local Approaches to State): AM and PM
- Intersection #19, Willow Road and Durham Street (Menlo Park): AM
- Intersection #20, Willow Road and Coleman Avenue (Menlo Park): AM and PM
- Intersection #21, Willow Road and Gilbert Avenue (Menlo Park): AM and PM
- Intersection #22, Willow Road and Middlefield Road (Menlo Park): AM
- Intersection #23, University and Bayfront Expressway (State): PM

The intersection of Chrysler Drive and Jefferson Drive (Intersection #9) would meet the MUTCD peak hour signal warrant during the PM peak hour while the intersection of Bay Road and Ringwood Avenue (Intersection #29) would meet the peak hour signal warrant during both AM and PM peak hours under Near Term (2025) Plus Project Conditions. The intersection of Chrysler Drive and Independence Drive (Intersection #10) would not meet peak hour signal warrant during either peak hour.

The recommended modifications to improve intersection operations to pre-Project conditions, or better are documented in the TIA. With implementation of the intersection modifications, the intersections would be in compliance with LOS standard and the Project's share of the non-compliant operation would be addressed. Based on the analysis results in the TIA, modifications identified in the TIF program would address the changes in intersection delay as a result of Project traffic at the following locations.

- Chrysler Drive and Jefferson Drive (Intersection #9)
- Chrysler Drive and Independence Drive (Intersection #10)
- Willow Road and Bayfront Expressway (Intersection #13)
- Willow Road and Ivy Drive (Intersection #15)
- Willow Road and Newbridge Street (Intersection #17)
- Willow Road and Bay Road (Intersection #18)
- Willow Road and Middlefield Road (Intersection #22)

Modifications to address the changes to intersection delay as a result of Project traffic at the following locations are either beyond or not included in the TIF program.

- Chrysler Drive and Constitution Drive (Intersection #8)
- Chilco Street and Constitution Drive (Intersection #12)
- Willow Road and Hamilton Avenue (Intersection #14)
- Willow Road and O'Brien Drive (Intersection #16)
- Willow Road and Durham Street (Intersection #19)
- Willow Road and Coleman Avenue (Intersection #20)
- Willow Road and Gilbert Avenue (Intersection #21)
- University Avenue and Bayfront Expressway (Intersection #23)

In addition, implementation of modifications at the following locations would require right of way acquisition and/or be subject to review and approval by Caltrans.

- Willow Road and Bayfront Expressway (Intersection #13)
- Willow Road and Hamilton Avenue (Intersection #14)
- Willow Road and Ivy Drive (Intersection #15)
- Willow Road and O'Brien Drive (Intersection #16)
- Willow Road and Newbridge Street (Intersection #17)
- Willow Road and Bay Road (Intersection #18)
- University Avenue and Bayfront Expressway (Intersection #23)

While the City strives to maintain LOS standard, implementation of the modifications should not be at the expense of VMT impacts. Implementation of intersection or roadway modifications would not result in any changes to the land use of the Proposed Project and the VMT associated with the Proposed Project and would not result in secondary effects or contribute to impacts under CEQA.

Cumulative (2040) Plus Project Conditions

The analysis in the TIA and as summarized herein is based on the City's TIA Guidelines for intersection LOS under Cumulative (2040) Plus Project Conditions. The turning movement volumes, lane configurations, Vistro outputs, and LOS results for the study intersections during AM and PM peak hours under Cumulative (2040) Plus Project Conditions are presented in the TIA (Appendix 3.1-1).

The Proposed Project would cause 19 of the study intersections to operate in non-compliance with the TIA Guidelines standard under Cumulative (2040) Plus Project Conditions by causing the intersections to increase either average movement delay or critical movement delay exceeding the threshold established by the TIA Guidelines during at least one peak hour.

- Intersection #1, Marsh Road and Bayfront Expressway/Haven Avenue (Local Approaches to State): AM
- Intersection #3, Marsh Road and US-101 SB Off-Ramp (State): AM
- Intersection #7, Chrysler Drive and Bayfront Expressway (Local Approaches to State): PM

- Intersection #8, Chrysler Drive and Constitution Drive (Menlo Park): AM and PM
- Intersection #9, Chrysler Drive and Jefferson Drive (Menlo Park): AM and PM
- Intersection #10, Chrysler Drive and Independence Drive (Menlo Park): AM
- Intersection #11, Chilco Street and Bayfront Expressway (Local Approaches to State): AM and PM
- Intersection #12, Chilco Street and Constitution Drive (Menlo Park): AM and PM
- Intersection #13, Willow Road and Bayfront Expressway (State): AM and PM
- Intersection #14, Willow Road and Hamilton Avenue (Local Approaches to State): AM and PM
- Intersection #15, Willow Road and Ivy Drive (Local Approaches to State): AM and PM
- Intersection #16, Willow Road and O'Brien Drive (Local Approaches to State): AM and PM
- Intersection #17, Willow Road and Newbridge Street (Local Approaches to State): AM and PM
- Intersection #18, Willow Road and Bay Road (Local Approaches to State): AM and PM
- Intersection #19, Willow Road and Durham Street (Menlo Park): AM and PM
- Intersection #20, Willow Road and Coleman Avenue (Menlo Park): AM and PM
- Intersection #21, Willow Road and Gilbert Avenue (Menlo Park): AM and PM
- Intersection #22, Willow Road and Middlefield Road (Menlo Park): AM
- Intersection #23, University and Bayfront Expressway (State): AM

The intersection of Chrysler Drive and Jefferson Drive (Intersection #9) would meet the MUTCD peak hour signal warrant during the PM peak hour and the intersection of Chrysler Drive and Independence Drive (Intersection #10) would meet the peak hour warrant during the AM peak hour. The intersection of Bay Road and Ringwood Avenue (Intersection #29) would meet the peak hour warrant during both AM and PM peak hours.

The recommended modifications to improve intersection operations to pre-Project conditions, or better are documented in the TIA. With implementation of the intersection modifications, the intersections would be in compliance with LOS standard and the Project's share of the non-compliant operation would be addressed. Based on the analysis results in the TIA, modifications identified in the TIF program would address the changes in intersection delay as a result of Project traffic at the following locations.

- Marsh Road and Bayfront Expressway/Haven Avenue (Intersection #1)
- Chrysler Drive and Jefferson Drive (Intersection #9)
- Chrysler Drive and Independence Drive (Intersection #10)
- Willow Road and Bayfront Expressway (Intersection #13)
- Willow Road and Ivy Drive (Intersection #15)
- Willow Road and Middlefield Road (Intersection #22)

Modifications to address the changes to intersection delay as a result of Project traffic at the following locations are either beyond or not included in the TIF program.

- Marsh Road and US-101 SB Off-Ramp (Intersection #3)
- Chrysler Drive and Bayfront Expressway (Intersection #7)
- Chrysler Drive and Constitution Drive (Intersection #8)
- Chilco Street and Bayfront Expressway (Intersection #11)
- Chilco Street and Constitution Drive (Intersection #12)
- Willow Road and Hamilton Avenue (Intersection #14)
- Willow Road and O'Brien Drive (Intersection #16)
- Willow Road and Newbridge Street (Intersection #17)
- Willow Road and Bay Road (Intersection #18)
- Willow Road and Durham Street (Intersection #19)
- Willow Road and Coleman Avenue (Intersection #20)
- Willow Road and Gilbert Avenue (Intersection #21)
- University Avenue and Bayfront Expressway (Intersection #23)

In addition, implementation of modifications at the following 17 locations would require widening, right-of-way acquisition, and/or be subject to review and approval by Caltrans.

- Marsh Road and Bayfront Expressway/Haven Avenue (Intersection #1).
- Marsh Road and US-101 SB Off-Ramp (Intersection #3).
- Chrysler Drive and Bayfront Expressway (Intersection #7).
- Chrysler Drive and Constitution Drive (Intersection #8).
- Chilco Street and Bayfront Expressway (Intersection #11).
- Willow Road and Bayfront Expressway (Intersection #13)
- Willow Road and Hamilton Avenue (Intersection #14).
- Willow Road and Ivy Drive (Intersection #15)
- Willow Road and O'Brien Drive (Intersection #16).
- Willow Road and Bay Road (Intersection #18).
- Willow Road and Durham Street (Intersection #19).
- Willow Road and Newbridge Street (Intersection #17).
- Willow Road and Bay Road (Intersection #18)
- Willow Road and Coleman Avenue (Intersection #20).
- Willow Road and Gilbert Avenue (Intersection #21).
- Willow Road and Middlefield Road (Intersection #22).
- University Avenue and Bayfront Expressway (Intersection #23).

While the City strives to maintain LOS standards, intersection and roadway modifications that increase vehicular capacity may conflict with the City's established goals of reducing vehicle miles traveled and greenhouse gas emissions.

Roadway Segment Level of Service

The findings of the roadway segment LOS compliance analysis are presented in this section for informational purposes. The analysis scope and methodology, analysis scenarios, data collection, and level of service policy standards are detailed in Appendix 3.1-1.

Near Term (2025) Plus Project Conditions

For Near Term (2025) Plus Project Conditions, the Project vehicle trips for the study segments were identified from the Project trip distribution assigned to each route. The study segments are included in the Congestion Management Program (CMP) adopted by the City/County Association of Governments of San Mateo County (C/CAG). A difference of the turning movement volumes at the adjacent intersections between Near Term (2025) and Near Term (2025) Plus Project Conditions indicates the amount of net-new vehicle traffic that the Proposed Project would add to the study CMP segments.

The Proposed Project would increase traffic volume by one or more than one percent of the roadway capacity and contribute to causing five roadway segments to operate not in compliance with C/CAG TIA policy under Near Term (2025) Plus Project Conditions.

- Segment #1, Bayfront Expressway (SR84) between Bayshore Freeway (US 101) and Willow Road (SR 114): 6.7 percent increase
- Segment #2, Bayfront Expressway (SR 84) between Willow Road (SR 114) and University Avenue (SR 109): 2.2 percent increase
- Segment #3, Bayfront Expressway (SR 84) between University Avenue (SR 109) and San Mateo County Line: 1.8 percent increase
- Segment #5, Willow Road (SR 114) between Bayshore Freeway (US 101) and Bayfront Expressway (SR 84): 1.1percent increase
- Segment #6, Bayshore Freeway (US 101) north of Marsh Road: 1.0 percent increase

With implementation of travel lane modifications and/or TDM measures to reduce the Project peak directional vehicle trips to one or less than one percent of the directional capacity, the segment would operate at or better than Near Term (2025) Conditions. While the City strives to maintain LOS standards, roadway modifications that increase vehicular capacity may conflict with the City's established goals of reducing vehicle miles traveled and greenhouse gas emissions. Furthermore, modifications are subject to Caltrans approval, which cannot be guaranteed.

Cumulative (2040) Plus Project Conditions

For Cumulative Plus Project (2040) Conditions, the Project vehicle trips for the study CMP segments were identified from the Project trip distribution assigned to each route. A difference of the turning movement volumes at the adjacent intersections between Cumulative (2040) and Cumulative (2040) Plus Project Conditions indicates the amount of net-new vehicle traffic that the Proposed Project would add to the study CMP segments.

The Proposed Project would increase traffic volume by one or more than one percent of the roadway capacity and contribute to causing the following five roadway segments to be non-compliant with C/CAG TIA policy under Cumulative (2040) Plus Project Conditions.

- Segment #1, Bayfront Expressway (SR84) between Bayshore Freeway (US 101) and Willow Road (SR 114): 6.7 percent increase
- Segment #2, Bayfront Expressway (SR 84) between Willow Road (SR 114) and University Avenue (SR 109): 2.2 percent increase
- Segment #3, Bayfront Expressway (SR 84) between University Avenue (SR 109) and San Mateo County Line: 1.8 percent increase
- Segment #5, Willow Road (SR 114) between Bayshore Freeway (US 101) and Bayfront Expressway (SR 84): 1.1percent increase
- Segment #6, Bayshore Freeway (US 101) north of Marsh Road: 1.0 percent increase

With implementation of travel lane modifications and/or TDM measures to reduce the Project peak directional vehicle trips to one or less than one percent of the directional capacity, the segment would operate at or better than Cumulative (2040) Conditions. While the City strives to maintain LOS standards, roadway modifications that increase vehicular capacity may conflict with the City's established goals of reducing vehicle miles traveled and greenhouse gas emissions. Furthermore, these modifications are subject to Caltrans approval, which cannot be guaranteed.

As stated above, level of service (LOS) is no longer a CEQA threshold. However, the City's TIA Guidelines require that the LOS is retained as a local metric in compliance with the City's General Plan. Action to address LOS compliance could be conditions of approval, but would not be CEQA required mitigation measures. As such, the recommended improvements furnished in the LOS analysis section would not be imposed as mitigations. Additionally, while the City strives to maintain LOS standards, these intersection and roadway modifications that increase vehicular capacity may conflict with the City's established goals of reducing vehicle miles traveled and greenhouse gas emissions.

Parking Assessment

Code Requirements

The O-B zoning district code requirements for office and parking structure uses are described in Table 3.1-7.

Table 3.1-7. Menlo Park Municipal Code Parking Standards

	Vehicle Parking Requirement/Allowance		
Land Use	Minimum (per 1,000 sf)	Maximum (per 1,000 sf)	Minimum Bicycle Parking Requirement
Office	2	3	1 per 5,000 sq. ft. of gross floor area (minimum of 2 spaces): 80% for long-term and 20% for short-term

Source: Menlo Park Municipal Code (June 2021).
Notes: long-term parking is defined as use over several hours or overnight, typically used by employees and residents; short-term parking is defined as visitor parking for use from several minutes to up to a couple of hours.
sf = square feet

The Project proposes a 249,500 square foot office space and would be required by code to provide 499 to 748 vehicle parking stalls for employees and 50 bicycle parking spaces, including, 40 bicycle stalls for employees and 10 bicycle stalls for guests.

Parking Supply

The Campus Property currently includes 866 surface parking spaces. Development of the Proposed Project would remove the majority of the existing parking spaces to construct Building 3, the parking structure, and Jefferson Park. After implementation of the Project, there would be 1,531 vehicle parking spaces onsite (191 surface parking spaces and 1,340 spaces in the proposed parking structure).

The Proposed Project would result in a net increase of 662 vehicle parking spaces on the site, not including the 23 parking stalls for Jefferson Park use. The 662 new parking stalls, along with the existing 866 parking stalls, result in a vehicle parking ratio of 2.65 stalls per 1,000 square feet of office space on the Campus Property.

Near the proposed Jefferson Park, an additional 23 parking spaces would be reserved for use by TIDE Academy during school hours and available for the general public visiting Jefferson Park after school hours if TIDE Academy chooses to use the park. If TIDE Academy rejects the Project Sponsor's offer of exclusive park use, the 23 parking spaces would be reserved for the general public visiting the park.

The O-B zoning district requires a minimum of 2 vehicle parking stalls per 1,000 square feet of office space and a maximum of 3 vehicle parking stalls per 1,000 square feet of office space. Therefore, the Proposed Project meets the Zoning Ordinance requirements for vehicle parking.

The Proposed Project would also include long-term and short-term bicycle parking for employees and visitors. Employees at Building 3 have access to secured bike storage in the parking structure that accommodates 45 bikes and visitors have access to 15 short-term bicycle parking spaces.

The O-B zoning district requires 1 bicycle parking stall per 5,000 square feet of office space and 1 bicycle parking stall per 20 vehicle parking spaces in a public parking structure. Therefore, the proposed office building meets the Zoning Ordinance requirements for bicycle parking.

Parking Demand

ITE Parking Generation rates estimate 2.39 parking stalls per 1,000 square feet of office space, resulting in an estimated Project-generated demand of 1,312 parking stalls. The net increase of 662 vehicle parking spaces proposed by the Proposed Project would not meet this demand when considering the Campus Property as a whole.

However, the Proposed Project's TDM plan identifies several measures to reduce vehicle trips and associated demand for parking. Proposed on-site amenities, such as pedestrian walkways, bicycle storage areas, showers, and a changing room, would further reduce the need to drive to other sites and therefore, reduce the demand for vehicular parking. For these reasons, the Proposed Project's parking demand is expected to be met onsite.

3.2 Air Quality

This section describes the environmental and regulatory setting for air quality. It also describes impacts related to air quality that would result from implementation of the Proposed Project and mitigation for significant impacts where feasible and appropriate. This section has been prepared using methods and assumptions recommended in the air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD).[1] The section describes existing air quality in the region, the Proposed Project's contribution to localized concentrations of carbon monoxide (CO), impacts from vehicular emissions that have regional effects, and the exposure of sensitive receptors to Project-generated toxic air contaminants (TACs). A health risk assessment (HRA) was also performed; the HRA is included in this section. The mass emission calculations and modeling data used to support the analyses are provided in Appendix 3.2-1; the HRA calculations and modeling data are provided in Appendix 3.2-2.

One comment regarding air quality was received in response to the Notice of Preparation (NOP). The comment was made during the Planning Commission's NOP scoping hearing. The commenter stated that the Proposed Project's analysis should consider cumulative air quality impacts, localized air quality impacts from US 101, and nearby sensitive receptors.

Existing Conditions

Environmental Setting

This section provides a discussion of existing conditions related to air quality in the study area. The information below is drawn from the relevant oversight agencies—specifically, BAAQMD, the California Air Resources Board (CARB), and the U.S. Environmental Protection Agency (EPA).

The Project area is within the larger San Francisco Bay Area Air Basin (SFBAAB); the air basin comprises the study area for the Proposed Project. Ambient air quality in the study area is affected by climatological conditions, topography, and the types of pollutants and the amounts emitted.

The following discussion describes the relevant characteristics of the SFBAAB, outlines the key pollutants of concern, summarizes existing ambient pollutant concentrations, and identifies sensitive receptors.

Regional Climate and Meteorology

Menlo Park is in the southern part of the SFBAAB. The large, shallow air basin is ringed by hills that taper into a number of sheltered valleys around the perimeter. Two primary atmospheric outlets exist.[2] One is the strait known as the Golden Gate, a direct outlet to the Pacific Ocean. The second extends to the northeast, along the West Delta region of the Sacramento and San Joaquin Rivers.

[1] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: May 14, 2021.

[2] An atmospheric outlet is a gap between land formations that allows air to flow in and out of an area.

The city is within the jurisdiction of BAAQMD, which regulates air quality in the San Francisco Bay Area (Bay Area). Air quality conditions in the Bay Area have improved significantly since BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen dramatically. Neither state nor national ambient air quality standards for the following pollutants have been violated in recent decades: nitrogen dioxide (NO_2), sulfur dioxide (SO_2), sulfates, lead, hydrogen sulfide, and vinyl chloride. Exceedances of air quality standards that do occur happen primarily during periods when meteorological conditions are conducive to high levels of pollution, such as cold, windless nights or hot, sunny summer afternoons.

Air quality is a function of both the local climate and the local sources of air pollution. Local sources of air pollution (e.g., mobile and stationary sources) are typically associated with human activity or natural processes, such as wildfires. Air quality reflects the balance between the natural dispersal capacity of the atmosphere and emissions of air pollutants from human uses of the environment or natural disasters, such as wildfires. Two meteorological factors affect air quality in Menlo Park, wind and temperature. Winds affect the direction of transport for air pollution emissions; wind also controls the volume of air into which pollution is mixed over a given period of time. Although winds govern horizontal mixing processes, temperature inversions determine the vertical mixing depth of air pollutants.

Menlo Park is located in San Mateo County, which lies in the middle of the San Francisco Peninsula, south of San Francisco County and north of Santa Clara and Santa Cruz Counties. San Mateo County is bounded by the Pacific Ocean to the west and San Francisco Bay to the east. Cool, foggy weather is prevalent along the western coast of the peninsula, particularly during the summer. Summertime average daily temperatures are moderate along the western coast and warm on the county's east side. In the winter, average daily temperatures across the county range from mild to moderate. Winds are mild, with the highest wind speeds along the western coast. Rainfall averages about 20 to 25 inches per year at the lower elevations and up to 36 inches in the Santa Cruz Mountains.[3]

Ozone (O_3) and fine particle pollution (i.e., particulate matter no more than 2.5 microns in diameter, or $PM_{2.5}$) are the major regional air pollutants of concern in the Bay Area. O_3 is primarily a problem in the summer; fine particle pollution is a problem in the winter.[4] In San Mateo County, O_3 levels almost never exceed health standards. $PM_{2.5}$ concentrations exceed the national standard about 1 day each year. San Mateo County frequently receives fresh marine air from the Pacific Ocean. The air passes over the coastal hills as it moves into the county. In winter, $PM_{2.5}$ may be transported into San Mateo County from other parts of the Bay Area. $PM_{2.5}$ may combine with wood smoke and lead to elevated concentrations. However, the concentrations are rarely high enough to exceed health standards.[5]

Pollutants of Concern

Occupants of facilities such as schools, day-care centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered more sensitive to air pollutants than the general public because of their increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions than commercial and industrial areas because people generally spend longer periods of time at their residences and have a greater associated exposure to ambient air quality conditions.

[3] Bay Area Air Quality Management District. 2019. *Climate and Air Quality in San Mateo County*. Available: https://www.baaqmd.gov/about-the-air-district/in-your-community/san-mateo-county. Accessed: May 14, 2021.

[4] Ibid.

[5] Ibid.

Recreational uses are also considered sensitive compared with commercial and industrial uses because of the greater exposure to ambient air quality conditions associated with exercise. These populations are referred to as *sensitive receptors*. Air pollutants and their health effects, as well as other air pollution–related considerations, are summarized in Table 3.2-1 and described in more detail below.

Table 3.2-1. Sources and Health Effects of Air Pollutants

Pollutant	Sources	Primary Effects
Ozone (O_3)	• Precursor sources:[a] motor vehicles, industrial emissions, and consumer products.	• Respiratory symptoms. • Worsening of lung disease, leading to premature death. • Damage to lung tissue. • Crop, forest, and ecosystem damage. • Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals.
Particulate Matter Less than 2.5 Microns in Aerodynamic Diameter ($PM_{2.5}$)	• Cars and trucks (especially diesel vehicles). • Fireplaces and wood stoves. • Wildfires. • Windblown dust from roadways, agriculture, and construction.	• Premature death. • Hospitalization for worsening of cardiovascular disease. • Hospitalization for respiratory disease. • Asthma-related emergency room visits. • Increased symptoms and increased inhaler usage.
Particulate Matter Less than 10 Microns in Aerodynamic Diameter (PM_{10})	• Cars and trucks (especially diesel vehicles). • Fireplaces and wood stoves. • Wildfires. • Windblown dust from roadways, agriculture, and construction.	• Premature death and hospitalization, primarily from worsening of respiratory disease. • Reduced visibility and material soiling.
Nitrogen Oxides (NO_X)	• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	• Lung irritation. • Enhanced allergic responses.
Carbon Monoxide (CO)	• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	• Chest pain in patients with heart disease. • Headaches. • Light-headedness. • Reduced mental alertness.
Sulfur Oxides (SO_x)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Worsening of asthma (e.g., increased symptoms, increased medication usage, emergency room visits).
Lead (Pb)	• Contaminated soil. • Lead-based paint.	• Impaired mental functioning in children. • Learning disabilities in children. • Brain and kidney damage.
Toxic Air Contaminants (TACs)	• Cars and trucks (especially diesel vehicles). • Industrial sources, such as chrome platers. • Neighborhood businesses, such as dry cleaners and service stations. • Building materials and products.	• Cancer. • Reproductive and developmental effects. • Neurological effects.

Source: California Air Resources Board. 2021. *Common Air Pollutants*. Available: https://ww2.arb.ca.gov/resources/common-air-pollutants. Accessed: May 14, 2021.

Notes:

[a] O_3 is not generated directly by these sources. Rather, precursor pollutants from these sources (ROG and NO_X) react with sunlight to form O_3 in the atmosphere.

Criteria Air Pollutants

Both state and federal governments have established health-based ambient air quality standards for six criteria air pollutants: O_3, CO, NO_2, SO_2, lead, and suspended particulate matter. In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria air pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO_2, and lead are considered local pollutants and tend to accumulate in the air locally.

Ozone

O_3, a secondary air pollutant, is produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_X. The main sources of ROG and NO_X, often referred to as O_3 precursors, are combustion processes, including combustion in motor vehicle engines, and the evaporation of solvents, paints, and fuels. In the Bay Area, automobiles are the largest source of O_3 precursors. O_3 is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with O_3 production through the photochemical reaction process. O_3 causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide

CO, an odorless, colorless gas, is usually formed as the result of incomplete combustion in fuels. The largest source of CO is the motor vehicle. CO transport is limited; it disperses with distance from a source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels and adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections that operate at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Extremely high levels of CO, such as those generated when a vehicle is running in an unventilated garage, can be fatal.

Particulate Matter

Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from man-made and natural sources. Particulate matter is categorized according to two size ranges, PM_{10} for particles less than 10 microns in diameter and $PM_{2.5}$ for particles less than 2.5 microns in diameter. In the Bay Area, motor vehicles generate about half of the air basin's particulate matter through tailpipe emissions as well as brake and tire wear; suspended dust particles result from vehicles traveling along paved and unpaved roads. Wood-burning fireplaces and stoves, industrial facilities, and construction involving ground-disturbing activities are other sources of such fine particulates, which are small enough to be inhaled into the deepest parts of the human lung and cause adverse health effects. According to CARB, studies in the United States and elsewhere have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks. Studies of children's health in California have demonstrated that particle pollution may

significantly reduce lung function in children.[6] Statewide attainment of particulate matter standards could reduce the number of premature deaths, hospital admissions for cardiovascular and respiratory disease, asthma-related emergency room visits, and episodes of respiratory illness in California.

Nitrogen Dioxide

NO_2, a reddish-brown gas, is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to O_3 formation, NO_2 also contributes to other pollution problems, including high concentrations of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on days with high levels of pollution, especially in conjunction with high O_3 levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless acidic gas with a strong odor. It is produced from the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO_2 has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. SO_2 also reduces visibility and the level of sunlight at the ground surface.

Lead

Lead, a metal, is found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery factories. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the EPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of EPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air have decreased dramatically.

Toxic Air Contaminants

In addition to the criteria air pollutants discussed above, TACs are another group of pollutants of concern. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. Potential TAC-related health effects include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs, with varying degrees of toxicity. Individual TACs vary greatly with respect to the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

TACs do not have ambient air quality standards but are regulated by the EPA and CARB. In 1998, CARB identified particulate matter from diesel-fueled engines (i.e., diesel particulate matter [DPM]) as a TAC. CARB completed a risk management process that identified potential cancer risks for a range of activities and land uses that are affected by the use of diesel-fueled engines.[7] High-volume freeways, stationary diesel engines, and facilities that attract constant and heavy volumes of diesel vehicle traffic

[6] California Air Resources Board. 2021. *Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10}).* Available: https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health. Accessed: May 14, 2021.

[7] California Air Resources Board. 2000. *Fact Sheet-California's Plan to Reduce Diesel Particulate Matter Emissions*. October. Available: https://ww3.arb.ca.gov/diesel/factsheets/rrpfactsheet.pdf. Accessed: May 14, 2021.

(e.g., distribution centers, truck stops) were identified as areas that pose the highest risk for adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both the concentration and the duration of exposure. BAAQMD regulates TACs with a risk-based approach that uses an HRA to determine which sources and which pollutants to control as well as the degree of control. An HRA is an analysis in which human exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances in order to provide a quantitative estimate of health risks.[8] As part of ongoing efforts to identify and assess potential health risks to the public, BAAQMD has collected and compiled air toxics emissions data from industrial and commercial sources of air pollution throughout the Bay Area.

Monitoring data and emissions inventories of TACs help BAAQMD determine health risks to Bay Area residents. Ambient monitoring concentrations of TACs indicate that pollutants emitted primarily from motor vehicles (1,3-butadiene and benzene) account for a substantial portion of the ambient background risk in the Bay Area.[9] According to BAAQMD, ambient benzene levels declined dramatically in 1996 with the advent of reformulated Phase 2 gasoline. Because of this reduction, the calculated average cancer risk, based on monitoring results, has also been reduced.

Unlike TACs emitted from industrial and other stationary sources, most DPM is emitted from diesel-powered vehicles and equipment, primarily construction and mining equipment, agricultural equipment, truck-mounted refrigeration units, and trucks and buses traveling on freeways and local roadways. Agricultural and mining equipment is not commonly used in the urban parts of the Bay Area, and construction equipment typically operates at various locations for only a limited time. As a result, the readily identifiable locations where DPM is emitted in the Bay Area include high-traffic roadways and other areas with substantial truck traffic. CARB estimated that about 70 percent of the total known cancer related to air toxics is attributable to DPM.[10] Within the Bay Area, BAAQMD found that, of all controlled TACs, emissions of DPM are responsible for about 82 percent of the total ambient cancer risk.[11]

CARB's Diesel Risk Reduction Plan is intended to reduce DPM emissions and associated health risks substantially through the introduction of ultra-low-sulfur diesel fuel, a step that has already been implemented, and cleaner diesel engines.[12] The technology for reducing DPM emissions from heavy-duty trucks is well established, and both state and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. This plan also established airborne toxic control measures for mobile sources, including on-road and off-road vehicles, as well as stationary

[8] In general, a health risk assessment is required if BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggests a potential public health risk. Such an assessment generally evaluates chronic, long-term effects, including the increased risk of cancer as a result of exposure to one or more TACs.

[9] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_ may2017-pdf.pdf?la=en. Accessed: May 14, 2021.

[10] California Air Resources Board. 2021. *Overview: Diesel Exhaust and Health*. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed: May 16, 2021.

[11] Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan*. April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: May 16, 2021.

[12] California Air Resources Board. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* Available: https://ww2.arb.ca.gov/sites/default/files/classic//diesel/documents/rrpfinal.pdf. Accessed: May 14, 2021.

sources. With implementation of Air Toxic Control Measures (ATCMs), statewide DPM concentrations decreased from approximately 1.8 micrograms per cubic meter (µg/m^3) to approximately 0.61 µg/m^3 between 1990 and 2012, resulting in a 66 percent reduction over that period.[13] CARB continues to explore strategies to reduce DPM emissions through engine retrofit mandates, cleaner diesel fuels, advanced engine technologies, and alternative fuels. CARB estimates that, by 2035, DPM emissions will be less than half of what they were in 2010.

High-Volume Roadways. Air pollutant exposures and their associated health burdens vary considerably at different locations because of differences in the sources of air pollutants. Motor vehicle traffic is perhaps the most important source of air pollution concentrations in urban areas. Air quality research consistently demonstrates that pollutant levels are substantially higher near freeways and busy roadways, and human health studies have consistently demonstrated that children living within 300 to 1,000 feet of freeways or busy roadways have reduced lung function and higher rates of respiratory disease.[14] At present, it is not possible to link roadway proximity and non-cancer health effects to one or more specific vehicle type or vehicle pollutant. Engine exhaust from diesel, gasoline, and other combustion engines is a complex mixture of particles and gases with collective and individual toxicological characteristics.

Odors

Although offensive odors rarely cause physical harm, they can be unpleasant and lead to considerable distress among the public. This distress often generates citizen complaints to local governments and air districts. According to BAAQMD's California Environmental Quality Act (CEQA) Guidelines and CARB's *Air Quality and Land Use Handbook*, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, chemical plants, petroleum refineries, auto body shops, coating operations, fiberglass manufacturing plants, foundries, rendering plants, and livestock operations. BAAQMD provides recommended screening distances for citing new receptors near existing odor sources.

Existing Air Quality Conditions

CARB and the EPA maintain ambient air quality monitoring stations within California. The air quality monitoring station closest to the Project site is the 897 Barron Avenue monitoring station in Redwood City, which monitors criteria air pollutants. The air quality trends from this station are used to represent ambient air quality in the Project area. Ambient air quality data from the Project area between 2017 and 2019 (the most recent data) are shown in Table 3.2-2. The pollutants monitored at the Redwood City station are O_3, CO, NO_2, and $PM_{2.5}$. Air quality trends for PM_{10} are not monitored in San Mateo County; therefore, the air quality trends for PM_{10} are from the 158 Jackson Street monitoring station in San José.

Table 3.2-2. Ambient Air Quality Data for the Project Area (2017–2019)

Pollutant Standards	2017	2018	2019
Ozone (O_3) at Redwood City Station			
Maximum 1-hour concentration (ppm)	0.115	0.067	0.083
Maximum 8-hour concentration (ppm)	0.086	0.049	0.077
Fourth-highest 8-hour concentration (ppm)	0.055	0.048	0.054

[13] California Air Resources Board. 2021. *Overview: Diesel Exhaust and Health*. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed: April 16, 2021.

[14] California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Available: https://ww3.arb.ca.gov/ch/handbook.pdf. Accessed: May 13, 2021.

Pollutant Standards	2017	2018	2019
Number of days standard exceeded			
CAAQS 1-hour standard (> 0.09 ppm)	2	0	0
CAAQS 8-hour standard (> 0.070 ppm)	2	0	2
NAAQS 8-hour standard (> 0.070 ppm)	2	0	2
Carbon Monoxide (CO) at Redwood City Station			
Maximum 8-hour concentration (ppm)	1.4	1.7	1.1
Maximum 1-hour concentration (ppm)	2.8	2.5	2.0
Number of days standard exceeded			
NAAQS 8-hour standard (≥ 9 ppm)	0	0	0
CAAQS 8-hour standard (≥ 9.0 ppm)	0	0	0
NAAQS 1-hour standard (> 35 ppm)	0	0	0
CAAQS 1-hour standard (≥ 20 ppm)	0	0	0
Nitrogen Dioxide (NO_2) from Redwood City Station			
Maximum state 1-hour concentration (ppm)	0.067	0.077	0.054
Annual average concentration (ppm)	0.010	0.010	0.009
Number of days standard exceeded			
CAAQS 1-hour standard (0.18 ppm)	0	0	0
NAAQS 1-hour standard (0.100 ppm)	0	0	0
Particulate Matter (PM_{10}) at Jackson Street Station			
Maximum state 24-hour concentration (μg/m³)	69.8	121.8	77.1
Maximum national 24-hour concentration (μg/m³)	69.4	115.4	75.4
National annual average concentration	20.7	20.9	18.4
Measured number of days standard exceeded			
CAAQS 24-hour standard (50 μg/m³)	6	4	4
NAAQS 24-hour standard (150 μg/m³)	0	0	0
Particulate Matter ($PM_{2.5}$) at Redwood City Station			
Maximum state 24-hour concentration (μg/m³)	60.8	120.9	29.5
Maximum national 24-hour concentration (μg/m³)	60.8	120.9	29.5
National annual average concentration	9.0	10.5	7.0
Measured number of days standard exceeded			
NAAQS 24-hour standard (> 35 μg/m³)	6	13	0

Sources:

California Air Resources Board. 2021. *iADAM: Air Quality Data Statistics.* Top 4 Summary. Available: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed: May 2021.

U.S. Environmental Protection Agency. 2021. *Monitor Values Report*. Available: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report. Accessed: May 2021.

Notes:

NAAQS = national ambient air quality standard; CAAQS = California ambient air quality standard; ppm = parts per million; μg/m³ = micrograms per cubic meter

An exceedance is not necessarily a violation.

State statistics are based on local conditions data; state statistics are based on California-approved samplers.

National statistics are based on standard conditions data. In addition, national statistics are based on samplers, using federal reference or equivalent methods.

State criteria for ensuring data are adequate for calculating valid annual averages are more stringent than national criteria.

Existing TAC Sources and Health Risks

BAAQMD maintains an inventory of health risks associated with all permitted stationary sources within the SFBAAB. The inventory was last updated in 2020 and is publicly available online.[15] Within 1,000 feet of the Project site there are six permitted facilities that have a background health risk associated with them. Detailed information on these facilities is included in Appendix 3.2-2. Aside from stationary sources, mobile sources and railways also generate TACs near the Project site. BAAQMD considers roadways with an average daily traffic (ADT) level of more than 10,000 to be "high-volume roadways" and recommends they be included in the analysis of health risks. There are 10 "high-volume roadways" near the Project site.

Regional Attainment Status

Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified areas for ambient air quality standards. The four designations are defined below. Table 3.2-3 summarizes the attainment status of San Mateo County.

- Nonattainment: Assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance: Assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- Attainment: Assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- Unclassified: Assigned to areas with insufficient data for determining whether a pollutant is violating the standard in question.

Table 3.2-3. Federal and State Attainment Status for San Mateo County Portion of the SFBAAB

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-hour)	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Particulate Matter (PM_{10})	Unclassified	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Attainment	Nonattainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified/Attainment	Attainment
Lead	Unclassified/Attainment	Attainment
Sulfates	(No Federal Standard)	Attainment
Hydrogen Sulfide	(No Federal Standard)	Unclassified
Visibility-Reducing Particles	(No Federal Standard)	Unclassified

Source: California Air Resources Board. 2020. *State Area Designations Regulations*. Appendix C: Maps and Tables of Area Designations for State and National Ambient Air Quality Standards. October. Available: https://ww3.arb.ca.gov/regact/2021/sad20/appc.pdf. Accessed: May 16, 2021.

[15] Bay Area Air Quality Management District. 2020. *Permitted Stationary Sources Risks and Hazards*. Available: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65. Accessed: January 11, 2021.

Sensitive Receptors

Sensitive land uses are generally considered to be areas where an exposure to pollutants could result in health-related risks for sensitive individuals, including children and the elderly. Per BAAQMD, typical sensitive land uses include residences, hospitals, and schools. Parks and playgrounds where sensitive receptors (e.g., children and seniors) are present are also considered sensitive land uses.[16] Places of employment (e.g., commercial/industrial uses) are not considered sensitive land uses because health-sensitive individuals (e.g., children and seniors) are not present.

Sensitive receptors near the Project site include the single-family residences south of US 101 along Hedge Road, approximately 280 feet to the southwest, and the single-family residences along Terminal Avenue and Del Norte Avenue, approximately 700 feet to the southeast. Schools in the vicinity of the Project site include the Sequoia Union High School District's TIDE Academy on Jefferson Drive, approximately 215 feet to the east, and Beechwood School on Terminal Avenue, approximately 630 feet to the southeast.

Regulatory Setting

The federal Clean Air Act (CAA) and its subsequent amendments form the basis for the nation's air pollution control effort. The EPA is responsible for implementing most aspects of the CAA. The national ambient air quality standards (NAAQS) for criteria pollutants are a key element of the CAA, which delegates enforcement of the NAAQS to the states. In California, CARB is responsible for enforcing air pollution regulations and ensuring that the NAAQS and California ambient air quality standards (CAAQS) are met. CARB, in turn, delegates regulatory authority for stationary sources and other air quality management responsibilities to local air agencies. BAAQMD is the local air agency for the Project area.

The following sections provide more detailed information on the federal, state, and local air quality regulations that apply to the Proposed Project.

Federal

Clean Air Act and National Ambient Air Quality Standards

The federal CAA was enacted in 1963 and amended numerous times in subsequent years (1965, 1967, 1970, 1977, and 1990). The federal CAA establishes federal air quality standards, known as the NAAQS, which are protective of human health, and specifies future dates for achieving compliance. The federal CAA also requires each state to submit and implement a State Implementation Plan (SIP) for local areas that fail to meet the standards. The plan must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the federal CAA identify specific emission reduction goals for areas that fail to meet the NAAQS. These amendments require both a demonstration of reasonable progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the federal CAA that would affect development of the Proposed Project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Table 3.2-4 shows the NAAQS that are currently in effect for each criteria pollutant. The CAAQS (discussed below) are provided for reference.

[16] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: May 14, 2021.

Table 3.2-4. Federal and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards[a]	
			Primary	Secondary
Ozone	1 hour	0.09 ppm	None[b]	None[b]
	8 hours	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM_{10})	24 hours	50 μg/m³	150 μg/m³	150 μg/m³
	Annual mean	20 μg/m³	None	None
Fine Particulate Matter ($PM_{2.5}$)	24 hours	None	35 μg/m³	35 μg/m³
	Annual mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³
Carbon Monoxide	8 hours	9.0 ppm	9 ppm	None
	1 hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide[c]	Annual mean	None	0.030 ppm	None
	24 hours	0.04 ppm	0.14 ppm	None
	3 hours	None	None	0.5 ppm
	1 hour	0.25 ppm	0.075 ppm	None
Lead	30-day average	1.5 μg/m³	None	None
	Calendar quarter	None	1.5 μg/m³	1.5 μg/m³
	3-month average	None	0.15 μg/m³	0.15 μg/m³
Sulfates	24 hours	25 μg/m³	None	None
Visibility-Reducing Particles	8 hours	—[d]	None	None
Hydrogen Sulfide	1 hour	0.03 ppm	None	None
Vinyl Chloride	24 hours	0.01 ppm	None	None

Source: California Air Resources Board. 2016. *Ambient Air Quality Standards*. Available: https://ww2.arb.ca.gov/sites/default/ files/2020-07/aaqs2.pdf. Accessed: May 16, 2021.

Notes:

PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less

$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 microns or less

μg/m³ = micrograms per cubic meter

ppm = parts per million

a. National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

b. The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and is a benchmark for SIPs.

c. The annual and 24-hour NAAQS for sulfur dioxide apply for only 1 year after designation of the new 1-hour standard in areas that were previously nonattainment areas for the 24-hour and annual NAAQS.

d. The CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer (visibility of 10 miles or more due to particles when relative humidity is less than 70 percent).

Non-Road Diesel Rule

The EPA has established a series of increasingly strict emissions standards for new off-road diesel equipment, on-road diesel trucks, and locomotives. New construction equipment used for the Proposed Project, including heavy-duty trucks and off-road construction equipment, would be required to comply with the emissions standards.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration (NHTSA) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in emissions of criteria air pollutants and precursors, as well as greenhouse gases, from all light-duty vehicles sold in the United States. On August 2, 2018, NHTSA and the EPA proposed an amendment to the fuel efficiency standards for passenger cars and light trucks and established new standards for model years 2021 through 2026 that would maintain the then-current 2020 standards through 2026—this was known as the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. On September 19, 2019, NHTSA and the EPA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables NHTSA and the EPA to provide nationwide uniform fuel economy and air pollutant standards by 1) clarifying that federal law preempts state and local tailpipe standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set state-specific standards.

NHTSA and the EPA published their decision to withdraw California's waiver and finalize the regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the District of Columbia (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others has been stayed, pending resolution of the petition.

NHTSA and the EPA published final rules on April 30, 2020, to amend and establish national air pollutant and fuel economy standards (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 miles per gallon (mpg) to 40.4 mpg in future years. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020.[17] On April 22, 2021, NHTSA announced it proposes to repeal the SAFE Vehicles Rule, Part One, allowing California the right to set its own standards.[18] On December 12, 2021, NHTSA repealed the SAFE Vehicles Rule, Part One. On December 19, 2021, NHTSA finalized its vehicle efficiency standards rule to reach a projected industry-wide target of 40 miles per gallon by 2026, an approximately 25 percent increase over the prior SAFE rule. Lastly, on March 9, 2022, the EPA reinstated California's authority under the CAA to implement its own GHG emission standards and sales mandate for zero-emissions vehicles. This action concludes EPA reconsideration of 2019's SAFE Vehicles Rule, Part One, by finding that actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.[19]

[17] *California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia.

[18] U.S. Department of Transportation, National Highway Transportation Safety Administration. 2021. *Corporate Average Fuel Economy Preemption.* Available: https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/cafe_preemption_nprm_04222021_1.pdf. Accessed: June 11, 2021.

[19] U.S. Environmental Protection Agency. 2022. *EPA Restores California's Authority to Enforce Greenhouse Gas Emission Standards for Cars and Light Trucks*. March 9. Available: https://www.epa.gov/newsreleases/epa-restores-californias-authority-enforce-greenhouse-gas-emission-standards-cars-and. Accessed: May 24, 2022.

State

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the state legislature adopted the California CAA, which established a statewide air pollution control program. The California CAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the federal CAA, the California CAA does not set precise attainment deadlines. Instead, the California CAA establishes increasingly stringent requirements for areas that require more time to achieve the standards. The CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The CAAQS and NAAQS are listed together in Table 3.2-4.

CARB and regional air districts bear responsibility for achieving California's air quality standards. The standards are to be achieved through district-level air quality management plans, which are incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB has traditionally established state air quality standards, maintained oversight authority for air quality planning, developed programs for reducing emissions from motor vehicles, developed air emissions inventories, collected air quality and meteorological data, and approved SIPs.

The California CAA substantially increases the authority and responsibilities of air districts. The California CAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts the authority to implement transportation control measures. The California CAA also emphasizes control over "indirect and area-wide sources" of air pollutant emissions. The California CAA gives local air pollution control districts explicit authority to regulate indirect sources and establish traffic control measures.

Statewide Truck and Bus Regulation

CARB adopted the Truck and Bus Regulation in 2008 to focus its efforts on reducing emissions of DPM, NO_X, and other criteria pollutants from diesel-fueled vehicles. This regulation applies to any diesel-fueled vehicle as well as any dual-fuel or alternative-fuel diesel vehicle that travels on public highways; yard trucks with on-road engines; yard trucks with off-road engines used for agricultural operations; school buses; and vehicles with a gross vehicle weight rating (GVWR) of more than 14,000 pounds. The purpose of the regulation is to require trucks and buses registered in the state to have 2010 or newer engines by 2023. Compliance schedules have been established for lighter vehicles (GVWR of 14,000–26,000 pounds) and heavier vehicles (GVWR of more than 26,001 pounds).[20] As of January 1, 2020, only vehicles that met the requirements of the Trucks and Bus Regulation were allowed to register with the California Department of Motor Vehicles.

Air Toxic Control Measure

In 2004, CARB developed multiple measures under its ATCMs to address specific mobile- and stationary-source issues that adversely affect public health. The ATCMs focused on reducing the public's exposure to DPM and TAC emissions. The "Limit Diesel-Fueled Commercial Motor Vehicle Idling" ATCM required drivers of heavy-duty trucks with a GVWR of more than 10,000 pounds to not idle the primary engine for

[20] California Air Resources Board. 2020. *CARB Truck Rule Compliance Required for DMV Registration*. July. Available: https://ww3.arb.ca.gov/msprog/truckstop/pdfs/sb1_faqeng.pdf. Accessed: May 16, 2021.

more than 5 minutes at any given time or operate an auxiliary power system for more than 5 minutes within 100 feet of a restricted area.[21] In addition, CARB set operating requirements for new emergency standby engines (i.e., diesel-fueled compression-ignition engines of less than 50 brake horsepower). Specifically, new engines shall not operate more than 50 hours per year for maintenance and testing purposes. This does not limit engine operation for emergency use or the emissions testing required to show compliance with ATCM Section 93115.6(a)(3).

Toxic Air Contaminant Regulation

California regulates TACs primarily through the Toxic Air Contaminant Identification and Control Act (Tanner Act) and the Air Toxics "Hot Spots" Information and Assessment Act of 1987 ("Hot Spots" Act). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act created California's program to reduce the public's exposure to air toxics. The "Hot Spots" Act supplements the Tanner Act by requiring a statewide air toxics inventory, notification for people who were exposed to a significant health risk, and facility plans to reduce risks.

Off-Road Diesel Vehicle Regulation

Off-road vehicles include, but are not limited to, diesel compression-ignition equipment; spark-ignition gasoline and liquified petroleum gas equipment; support equipment at ports, airports, and railways; and marine vehicles. In 2007, CARB aimed to reduce emissions of DPM, NO_X, and other criteria pollutants from off-road diesel-fueled equipment with adoption of the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation). The Off-Road Regulation applies to all diesel-fueled equipment or alternative-fuel diesel equipment with a compression-ignition engine greater than 25 horsepower (e.g., tractors, bulldozers, backhoes) as well as dual-fuel equipment. The regulation also applies to all equipment that is rented or leased.[22] The purpose of the regulation is to reduce emissions by retiring, repowering, or replacing older, dirtier engines with newer, cleaner engines. The regulation established a compliance schedule for owners of small, medium, and large fleets. The schedule for large and medium fleets requires full implementation by 2023; small fleets have until 2028.[23]

Local

Bay Area Air Quality Management District

BAAQMD seeks to attain and maintain air quality conditions in the SFBAAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and education. Its clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. BAAQMD also inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations, as required by law.

[21] California Air Resources Board. 2005. *Final Regulation Order, Regulation for In-Use Off-Road Diesel Vehicles.* Available: https://ww3.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf. Accessed: May 16, 2021.

[22] California Air Resources Board. 2008. *Final Regulation Order, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.* Available: https://ww3.arb.ca.gov/regact/idling/fro1.pdf. Accessed: May 16, 2021.

[23] Ibid.

2017 Bay Area Clean Air Plan

The 2017 Bay Area Clean Air Plan (Clean Air Plan) guides the region's air quality planning efforts to attain the CAAQS.[24] The current plan, adopted on April 19, 2017, by the BAAQMD Board of Directors, contains district-wide control measures to reduce O_3 precursor emissions (e.g., ROGs and NO_X), particulate matter, and greenhouse gas (GHG) emissions.

Specifically, the Clean Air Plan:

- Describes BAAQMD's plan for attaining all NAAQS and CAAQS and eliminating health risk disparities from exposure to air pollution among Bay Area communities;
- Defines a vision for transitioning the region to the post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050;
- Provides a regional climate protection strategy that will put the Bay Area on a pathway to achieving GHG reduction targets; and
- Includes a wide range of control measures to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, O_3, and TACs; reduce emissions of methane and other GHGs with high global warming potential that are potent climate pollutants for the near term; and decrease emissions of CO by reducing fossil fuel combustion.

BAAQMD CARE Program

The Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area. The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources, with an emphasis on diesel exhaust, which is a major contributor to airborne health risks in California. The ongoing CARE program encourages community involvement and input. The technical analysis portion of the CARE program is being implemented in three phases, an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TACs, and an assessment of exposures and health risks. Throughout the program, information derived from technical analyses will be used to focus emission reduction measures in areas with high TAC exposures and a high density of sensitive populations. Risk reduction activities associated with the CARE program will be focused on the most at-risk communities in the Bay Area.

For commercial and industrial sources, BAAQMD regulates TACs using a risk-based approach. This approach uses an HRA to determine what sources and pollutants to control as well as the degree of control. An HRA is an analysis in which human health exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances in order to provide a quantitative estimate of health risks.[25] As part of ongoing efforts to identify and assess potential health

[24] Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan*. April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: May 14, 2021.

[25] In general, a health risk assessment is required if BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggests a potential public health risk. Such an assessment generally evaluates chronic, long-term effects, including the increased risk of cancer as a result of exposure to one or more TACs.

risks to the public, BAAQMD has collected and compiled air toxics emissions data from industrial and commercial sources of air pollution throughout the Bay Area. BAAQMD has identified seven affected communities; Menlo Park has not been identified as an affected community.[26,27]

BAAQMD CEQA Air Quality Guidelines

BAAQMD's CEQA Air Quality Guidelines were prepared to assist in the evaluation of the air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and GHG emissions.

In June 2010, BAAQMD adopted updated CEQA Air Quality Guidelines and finalized them in May 2011. The guidelines, which superseded the previously adopted agency air quality guidelines of 1999, were intended to advise lead agencies on how to evaluate potential air quality impacts. In May 2017, BAAQMD published an updated version of the CEQA Air Quality Guidelines. The 2017 CEQA Air Quality Guidelines included thresholds for evaluating a project's impact on air quality. These protective thresholds are appropriate to the size, scale, and location of the Proposed Project.

City of Menlo Park

The City of Menlo Park (City) addresses air quality issues in the Open Space, Conservation, Noise, and Safety Elements of the Menlo Park General Plan.[28] The Open Space, Conservation, Noise, and Safety Elements set goals, policies, and implementing programs that work to ensure healthy air quality. The policies below are applicable to the Proposed Project.

> **Policy OSC5.1: Air and Water Quality Standards.** Continue to apply standards and policies established by BAAQMD, the San Mateo Countywide Water Pollution Prevention Program, and City of Menlo Park Climate Action Plan through the CEQA process and other means as applicable.
>
> **Policy OSC5.2: Development in Industrial Areas.** Evaluate development projects in industrial areas for impacts on air and water resources in relation to truck traffic, hazardous material use, and production-level manufacturing per CEQA and require measures to mitigate potential impacts to less-than-significant levels.

ConnectMenlo General Plan

The General Plan and M-2 Area Zoning Update (ConnectMenlo), which updated the Land Use Element and Circulation Element of the Menlo Park General Plan, was adopted in November 2016. The goal and policy from ConnectMenlo listed below are most relevant to the Proposed Project.[29]

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[26] The affected communities are Richmond/San Pablo; eastern San Francisco, including Treasure Island; San José; western Alameda County; Concord, Vallejo; and Pittsburg/Antioch.

[27] Bay Area Air Quality Management District. 2014. *Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area*. March. Available: https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx. Accessed: May 14, 2021.

[28] Menlo Park, City of. 2013. *City of Menlo Park General Plan, Open Space Conservation, Noise and Safety Elements*. May 21. Available: https://www.menlopark.org/DocumentCenter/View/234/Open-Space-and-Conservation-Noise-and-Safety-Elements?bidId=. Accessed: May 14, 2021.

[29] Menlo Park, City of. 2016. *City of Menlo Park General Plan, Land Use and Circulation Elements.* November 29. Available: https://www.menlopark.org/DocumentCenter/View/15013/Land-Use-and-Circulation-Element_adopted-112916_final_figures?bidId=. Accessed: May 14, 2021.

Goal CIRC-3: Sustainable Transportation. Increase mobility options to reduce traffic congestion, greenhouse gas emissions, and commute travel time.

Policy CIRC-4.2: Local Air Pollution. Promote non-motorized transportation to reduce exposure to local air pollution, thereby reducing the risk of respiratory disease, other chronic illnesses, and premature death.

Environmental Impacts

This section describes the impact analysis related to air quality for the Proposed Project. It describes the methods used to determine the impacts of the Proposed Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, as necessary.

Thresholds of Significance

Appendix G of the CEQA Guidelines provides four questions to help lead agencies assess whether a project would result in a significant impact on air quality. These questions ask whether a project would:

- Conflict with or obstruct implementation of the applicable air quality plan,
- Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard,
- Expose sensitive receptors to substantial pollutant concentrations, or
- Result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.

As discussed above, all pollutants that would be generated by the Proposed Project are associated with some form of health risk (e.g., asthma, lower respiratory problems). The primary pollutants of concern generated by the Proposed Project would be O_3 precursors (ROG and NO_X), CO, particulate matter, and TACs (including DPM and asbestos). The following sections discuss the thresholds and analysis considerations for regional and local Project-generated criteria pollutants and their human health implications. Thresholds and guidance for evaluating potential odors associated with the Project area also presented.

Local Air District Thresholds

Regional Thresholds for Air Basin Attainment of State and Federal Ambient Air Quality Standards

BAAQMD has adopted thresholds for regional air pollutants to assist lead agencies in determining the significance of environmental effects with respect to local attainment of state and federal ambient air quality standards. (As discussed above, ROG and NO_X are regional pollutants, whereas particulate matter is both a regional and local pollutant.) The thresholds are based on emissions levels identified under the New Source Review (NSR) program, which is a permitting program established by Congress as part of the CAA amendments of 1990 to ensure that air quality is not significantly degraded by new sources of emissions. The NSR program requires stationary sources to receive permits before construction and/or the use of equipment. By permitting large stationary sources, the NSR program ensures that new emissions will not slow regional progress toward attaining the NAAQS. BAAQMD concluded that the stationary pollutants described under the NSR program are equal in significance to those generated with land use projects.

BAAQMD's regional thresholds identified in Table 3.2-5 were set as the emissions thresholds associated within the NSR program to help attain the NAAQS.[30]

Table 3.2-5. BAAQMD Project-Level Regional Criteria Pollutant Emission Thresholds

Analysis	Thresholds
Regional Criteria Pollutants (Construction)	• Reactive Organic Gases: 54 pounds/day • Oxides of Nitrogen: 54 pounds/day • Particulate Matter: 82 pounds/day (exhaust only); compliance with best management practices (fugitive dust) • Fine Particulate Matter: 54 pounds/day (exhaust only); compliance with best management practices (fugitive dust)
Regional Criteria Pollutants (Operations)	• Reactive Organic Gases: 54 pounds/day • Oxides of Nitrogen: 54 pounds/day • Particulate Matter: 82 pounds/day (exhaust + fugitive dust) • Fine Particulate Matter: 54 pounds/day (exhaust +fugitive dust)

Source: Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_ may2017-pdf.pdf?la=en. Accessed: May 14, 2021.

The primary pollutants of concern in the Project area are O_3, CO, and suspended particulate matter. Significance thresholds established by an air district are used to manage total regional and local emissions within an air basin, based on the air basin's attainment status for criteria air pollutants. The emission thresholds shown in Table 3.2-5 were established for individual development projects that could contribute to regional and local emissions and adversely affect or delay the air basin's projected attainment target goals for nonattainment criteria air pollutants.

One individual project that generates emissions that exceed a threshold does not necessarily result in adverse health effects for residents in the vicinity. This condition is especially true when the criteria air pollutants that exceed thresholds are those with regional effects, such as O_3 precursors (e.g., oxides of nitrogen [NO_X] and reactive organic gases [ROGs]). Furthermore, by its very nature, air pollution is largely a cumulative impact. No single project is large enough by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality is considered significant. In developing thresholds of significance for air pollutants, the air districts have considered the emission levels at which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts on the region's existing air quality conditions.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

The California Supreme Court's 2018 decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502), hereafter referred to as the Friant Ranch Decision, reviewed the long-term regional air quality analysis contained in the environmental impact report (EIR) for the proposed Community Plan Update and Friant Ranch

[30] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_ may2017-pdf.pdf?la=en. Accessed: May 14, 2021.

Specific Plan (Friant Ranch Project). The Friant Ranch Project proposed a 942-acre master-plan development in unincorporated Fresno County, within the San Joaquin Valley Air Basin, which is currently designated as a nonattainment area with respect to the NAAQS and CAAQS for O_3 and $PM_{2.5}$. The court found that the EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The court's decision notes that environmental documents must attempt to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

All criteria pollutants generated by the Proposed Project would be associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional pollutants or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. O_3 is considered a regional criteria pollutant, whereas CO, NO_2, SO_2, and lead are localized pollutants. Particulate matter can be both a local and a regional pollutant, depending on its composition. The primary criteria pollutants of concern generated by the Proposed Project would be O_3 precursors (ROG and NO_X), CO, and particulate matter, including DPM.

The sections that follow discuss thresholds and analysis considerations for regional and local Project-generated criteria pollutants with respect to their human health implications.

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional Particulate Matter)

Adverse health effects from regional criteria pollutant emissions, such as O_3 precursors and particulate matter, generated by the Proposed Project are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). Therefore, O_3 precursors (ROG and NO_X) contribute to the formation of ground-borne O_3 on a regional scale. Emissions of ROG and NO_X generated in an area may not correlate to a specific O_3 concentration in that same area. Similarly, some types of particulate pollutants may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased O_3 or regional particulate matter concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project. Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect. As discussed above, there are large individual differences in the intensity of symptomatic responses to air pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. Although models are capable of quantifying O_3 and any secondary particulate matter formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating Project-generated criteria pollutants to the locations where specific health effects could occur or the resultant number of additional days of nonattainment is not possible with any degree of accuracy.

The technical limitations of existing models (e.g., for correlating Project-level regional emissions to specific health consequences) are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast Air Quality Management District (SCAQMD), which provided amici curiae briefs for the Friant Ranch Project's legal

proceedings. In its brief, the SJVAPCD acknowledged that HRAs for localized air toxics, such as DPM, are common; however, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task."[31] The SJVAPCD further notes that emissions solely from the Friant Ranch Project, which equate to less than one-tenth of one percent of total NO_X and volatile organic compounds in the valley, is not likely to yield valid information and that any such information would not be "accurate when applied at the local level." SCAQMD presents similar information in its brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient O_3 levels."[32,33] The Sacramento Metropolitan Air Quality Management District also acknowledges that neither it nor any other air district currently has "a methodology that would correlate the expected air quality emissions of projects to the likely health consequences of the increased emissions."[34] As of the release of this EIR, no expert agency or air quality management district has approved a quantitative method for accurately correlating criteria pollutant emissions generated by an individual project to specific health outcomes or changes in nonattainment days.

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations as well as attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates that there are known safe concentrations of criteria pollutants. Although recognizing that air quality is a cumulative problem, air districts typically consider projects that generate criteria pollutant and O_3 precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. Emissions generated by the Proposed Project could increase photochemical reactions and the formation of tropospheric O_3 and secondary particulate matter, which, at certain concentrations, could lead to increased incidences of specific health consequences. Although these health effects are associated with O_3 and particulate pollution, the effects are a result of cumulative and regional emissions. Therefore, the Proposed Project's incremental contribution cannot be traced to specific health outcomes on a regional scale, and a quantitative correlation of Project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis. It is foreseeable that unmitigated construction-related and operational emissions of O_3 precursors and particulate matter, in excess of BAAQMD thresholds, could contribute to cumulative and regional health impacts. In such cases, all feasible mitigation would be applied, and emissions would be reduced to the extent possible.

[31] San Joaquin Valley Air Pollution Control District. 2015. *Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party in Interest and Respondent, Friant Ranch, L.P.* Available: https://www.courts.ca.gov/documents/7-s219783-ac-san-joaquin-valley-unified-air-pollution-control-dist-041315.pdf. Accessed: May 14, 2021.

[32] South Coast Air Quality Management District. 2015. *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and [Proposed] Brief of Amicus Curiae.* Available: https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf. Accessed: May 15, 2021.

[33] For example, SCAQMD's analysis of its 2012 Air Quality Attainment Plan showed that the modeled NO_x and ROG reductions of 432 and 187 tons per day, respectively, reduced ozone levels by only 9 parts per billion.

[34] Sacramento Metropolitan Air Quality Management District. 2019. *Friant Ranch Interim Recommendation*. April 25. Available: http://www.airquality.org/LandUseTransportation/Documents/FriantInterimRecommendation.pdf. Accessed: May 15, 2021.

Localized Project-Generated Criteria Pollutant Emissions (CO and Particulate Matter) and Air Toxics (DPM and Asbestos)

Localized pollutants generated by a project can affect populations near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. The localized pollutants of concern that would be generated by the Proposed Project are CO, particulate matter, DPM, and asbestos. The applicable thresholds for each pollutant are described below.

Localized Carbon Monoxide Concentrations

Heavy traffic congestion can contribute to high levels of CO, and individuals exposed to such hot spots may have a greater likelihood of developing adverse health effects. BAAQMD has adopted screening criteria that provide a conservative indication of whether Project-generated traffic would cause a potential CO hot spot. If the screening criteria are met, a quantitative analysis through site-specific dispersion modeling of Project-related CO concentrations would not be necessary, and the Proposed Project would not cause localized violations of the CAAQS for CO. Projects that do not generate CO concentrations in excess of the health-based CAAQS would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded. BAAQMD's CO screening criteria are summarized below.

1. Project traffic would not increase traffic volumes at affected intersections beyond 44,000 vehicles per hour.
2. Project traffic would not increase traffic volumes at affected intersections beyond 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., a tunnel, parking structure, bridge underpass, natural or urban street canyon, below-grade roadway).
3. The project would be consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, a regional transportation plan, and local congestion management agency plans.

Localized Particulate Matter Concentrations

BAAQMD adopted an incremental, concentration-based $PM_{2.5}$ significance threshold in which a "substantial" contribution at the project level for an individual source is defined as the total $PM_{2.5}$ concentration (i.e., exhaust and fugitive) exceeding 0.3 $\mu g/m^3$. This is the same threshold used to evaluate the placement of new receptors that would be exposed to individual $PM_{2.5}$ emissions sources. In addition, BAAQMD considers projects to have a cumulatively considerable $PM_{2.5}$ impact if sensitive receptors are exposed to $PM_{2.5}$ concentrations from local sources within 1,000 feet, including existing sources, project-related sources, and reasonably foreseeable future sources, that exceed 0.8 $\mu g/m^3$.

BAAQMD has not established PM_{10} thresholds of significance. BAAQMD's $PM_{2.5}$ thresholds apply to both new receptors and new sources. However, BAAQMD considers fugitive PM_{10} from earthmoving activities to be less than significant with application of BAAQMD's best management practices (BMPs).

Localized Toxic Air Contaminant Concentrations

DPM has been identified as a TAC. DPM is particularly concerning because long-term exposure can lead to cancer, birth defects, and damage to the brain and nervous system. BAAQMD has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to single sources of DPM emissions. The

"substantial" DPM threshold, as defined by BAAQMD, is exposure of a sensitive receptor to an individual emissions source that results in an excess cancer risk level of more than 10 in 1 million or a non-cancer (i.e., chronic or acute) hazard index (HI) greater than 1.0.

The air district considers projects to have a cumulatively considerable DPM impact if they contribute DPM emissions that, when combined with cumulative sources within 1,000 feet of sensitive receptors, result in excess cancer risk levels of more than 100 in 1 million or an HI greater than 10.0. BAAQMD considers a project to have a significant cumulative impact if it introduces new receptors at a location where the combined exposure to all cumulative sources within 1,000 feet is in excess of the cumulative thresholds.

Asbestos

BAAQMD considers a project to have a significant impact if it does not comply with the applicable regulatory requirements outlined in Regulation 11, Rule 2, Asbestos Demolition, Renovation, and Manufacturing.

Odors

BAAQMD's thresholds for odors are qualitative and based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that no person shall discharge from any source whatsoever quantities of air contaminants or other materials that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public; endanger the comfort, repose, health, or safety of any such persons or the public; or cause, or have a natural tendency to cause, injury or damage to businesses or property. Under BAAQMD's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance. BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants.[35]

Methods for Analysis

Air quality impacts associated with construction and operation of the Proposed Project were assessed and quantified using standard and accepted software tools, calculations, and emission factors. A summary of the methodology is provided below.

Construction

Construction of the Proposed Project is estimated to begin October 2022 and have a total duration of approximately 39 months. The parking structure would be constructed first, followed by the office building and Jefferson Park. Construction would generate ROG, NO_X, PM_{10}, and $PM_{2.5}$ that could result in short-term air quality effects during the construction period. Emissions would result from exhaust associated with off-road equipment; exhaust associated with employees' vehicles and haul trucks; fugitive dust associated with demolition, site grading, and earthmoving; suspended road dust associated with vehicle travel; and off-gassing emissions associated with architectural coatings and

[35] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: May 14, 2021.

paving. BAAQMD's recommended regional construction thresholds require evaluation of only exhaust emissions; however, the air quality analysis also estimated fugitive dust emissions for the $PM_{2.5}$ analysis. Emissions were estimated using a combination of emission factors and methodologies from the California Emissions Estimator Model (CalEEMod), version 2020.4.0; CARB's EMission FACtor 2021 (EMFAC2021) model; and EPA's AP-42, Compilation of Air Pollutant Emission Factors. The estimates relied on a combination of CalEEMod default data values as well as Project-specific information provided by the Project Sponsor. Detailed descriptions of model input and output parameters and assumptions are provided in Appendix 3.2-1.

Operation

Operation of the Proposed Project would generate emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. Criteria pollutant emissions from motor vehicles associated with development of the Proposed Project were evaluated using emission factors from EMFAC2021 as well as the daily trips and trip lengths provided in the Transportation Impact Analysis (TIA) prepared for the Proposed Project.[36] Area-, energy-, and stationary-source emissions associated with the Proposed Project were estimated using CalEEMod version 2020.4.0 (Appendix 3.2-1). Area sources would be associated with the reapplication of architectural coatings as part of ongoing building maintenance, the use of consumer products, and the use of landscaping equipment. Stationary-source emissions would be associated with the maintenance and testing of a 400-kilowatt, 536-horsepower diesel-powered emergency generator that would operate for 15 minutes each month. The Proposed Project would be fully operational by 2025. A detailed description of model input and output parameters and assumptions is provided in Appendix 3.2-1.

Health Risk Analysis

An HRA was prepared to quantify the levels of exposure at nearby sensitive receptors from emissions of TACs and $PM_{2.5}$ generated during both Project construction and operation. Refer to Appendix 3.2-2 for all HRA assumptions and modeling results.

Diesel Particulate Matter and $PM_{2.5}$

The Proposed Project would generate DPM and $PM_{2.5}$ emissions during construction and operations. Because the Proposed Project would introduce DPM and $PM_{2.5}$ emissions in an area near existing sensitive receptors, an HRA was conducted. The HRA used EPA's most recent air dispersion model, AERMOD (version 19191); cancer and chronic risk assessment values for DPM provided by the Office of Environmental Health Hazard Assessment (OEHHA); and other assumptions for model inputs recommended in BAAQMD's Health Risk Assessment Modeling Protocol.[37] The HRA applies the most recent guidance and calculation methods from OEHHA's *Air Toxics Hot-Spots Program Guidance Manual for the Preparation of Risk Assessments*.[38] The HRA consists of three parts, an emissions inventory, air dispersion modeling, and risk calculations. A description of each of these parts follows.

[36] Kittelson & Associates. 2021. *Commonwealth Building 3 Transportation Impact Analysis*.

[37] Bay Area Air Quality Management District. 2020. *Health Risk Assessment Modeling Protocol*. December. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed: May 15, 2021.

[38] Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments*. February. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed: May 15, 2021.

Emissions Inventory

The emissions inventory includes DPM and $PM_{2.5}$ emissions from construction and operations. During construction, DPM emissions would be generated by off-road equipment and on-road travel by heavy-duty trucks. The construction $PM_{2.5}$ inventory consists of $PM_{2.5}$ exhaust and fugitive dust emissions from off-road equipment, onsite soil movement, and on-road travel by heavy-duty trucks and workers' vehicles.

The operational DPM inventory includes emissions from maintenance and testing of the emergency generator and on-road travel and idling by diesel-powered delivery trucks. The operational $PM_{2.5}$ inventory consists of $PM_{2.5}$ exhaust emissions from the emergency generator, $PM_{2.5}$ exhaust and fugitive dust emissions from on-road travel by employees' vehicles and delivery trucks, and $PM_{2.5}$ exhaust from delivery truck idling.

Air Dispersion Modeling

The HRA used EPA's AERMOD model, version 19191, to model annual average DPM and $PM_{2.5}$ concentrations at nearby receptors. Modeling inputs, including emission rates in grams of pollutant emitted per second, and source characteristics (e.g., release height, stack diameter, plume width) were based on guidance provided by OEHHA, BAAQMD, and the SCAQMD. Meteorological data were obtained from CARB for the Santa Clara County station at Palo Alto Airport. This meteorological station is the nearest monitoring station (2.4 miles south of the Project site).

Construction

Onsite construction emissions from off-road equipment were characterized as a polygon area source that outlined the areas where construction activities would occur. A release height of 5.0 meters represented exhaust emissions, and a release height of 0 meters represented onsite fugitive dust emissions.[39] The release height represents the height above the ground at which pollutants are emitted. On-road travel emissions from haul trucks and vendors' trucks, as well as workers' vehicles for $PM_{2.5}$ analysis, were characterized as line volume sources with release heights of 0.9 meter for fugitive dust emissions and 3.4 meters for exhaust emissions. Line volume sources represent a series of individual volumes sources.

To account for the plume rise associated with mechanically generated air turbulence from construction emissions for the AERMOD run, the initial vertical dimension of the area source was modeled at 1.4 meters for exhaust and 1.0 meters for fugitive dust; for the line volume source, the initial vertical dimension was 3.2 meters for exhaust and 0.8 meter for fugitive dust. Plume rise is the height that pollutants rise above a release height. For exhaust, plume rise is due to the high temperature of the exhaust gas. For dust, plume rise is associated with the mechanical entrainment of dust from the wheels of equipment and trucks. Emissions from off-road equipment were assumed to be generated throughout the footprint of each construction area. Emissions from offsite vehicles were modeled along the road segments included in the construction haul route.

The modeling of emissions from construction activities was based on typical construction hours and a typical number of days (8 hours per day, 5 days per week). The urban dispersion option was used in the analysis because of the Project site's characteristics and because surrounding areas are developed with

[39] South Coast Air Quality Management District. 2008. *Final Localized Significance Threshold Methodology*. Revised: July. Available: https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. Accessed: May 15, 2021.

buildings and paved surfaces that can influence how pollutants are dispersed. Offsite sensitive receptors were placed in all directions within 1,000 feet of the Project site using a 10- by 10-meter receptor grid. The receptor grid included receptors located at residences and schools. Receptors were given a height of 1.5 meters to represent the average human breathing zone.[40]

Operations

Operations would generate DPM and $PM_{2.5}$ from vehicle travel as well as the testing and maintenance of an emergency generator. On-road travel emissions from delivery trucks, as well as employees' vehicles for $PM_{2.5}$ analysis, were characterized as line volume sources with release heights of 0.9 meter for fugitive dust emissions and 3.4 meters for exhaust emissions. To account for plume rise associated with mechanically generated air turbulence from operational emissions sources for the AERMOD run, the initial vertical dimension for the line volume sources was 3.2 meters for exhaust and 0.8 meter for fugitive dust. Delivery truck idling, which would generate DPM and $PM_{2.5}$ exhaust, was characterized using a single source with a release height of 3.4 meters and initial vertical dimension of 3.2 meters. The emergency generator would generate DPM and $PM_{2.5}$ exhaust emissions. The emergency generator was represented using a point source with a release height of 3.05 meters and an exhaust flow rate of 3,044 cubic feet per minute.

For operations, the urban dispersion option considered the Project site's characteristics. Offsite sensitive receptors were placed at individual homes in all directions within 1,000 feet of the Project site using a 10- by 10-meter receptor grid, similar to construction. Receptors were given a height of 1.5 meters to represent the average human breathing zone.[41] A complete list of dispersion modeling inputs is provided in Appendix 3.2-2.

Health Risk Exposure Estimation

The risk calculations incorporate OEHHA's age sensitivity factors, which account for increased sensitivity to carcinogens during early-in-life exposure. The approach for estimating cancer risk from long-term inhalation, including exposure to carcinogens, requires calculating a range of potential doses and multiplying by cancer potency factors in units corresponding to the inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group is calculated using the appropriate daily breathing rates, age sensitivity factors, and exposure durations. The cancer risks calculated for individual age groups are summed to estimate the cancer risk for each receptor. Chronic cancer and hazard risks were calculated using values from OEHHA's 2015 HRA guidance.[42]

In accordance with BAAQMD guidance, residential cancer risks assumed a 30-year exposure duration. Two residential cancer risk scenarios were evaluated for the Proposed Project. Scenario 1 evaluates a receptor beginning in the third trimester of pregnancy and being exposed to the full construction duration of 3.23 years and then 26.77 years of operations, for a total exposure duration of 30 years. Scenario 2 evaluates a residential receptor beginning in the third trimester of pregnancy and being exposed to 30

[40] Bay Area Air Quality Management District. 2020. *Health Risk Assessment Modeling Protocol*. December. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed: May 15, 2021.

[41] Bay Area Air Quality Management District. 2020. *Health Risk Assessment Modeling Protocol*. December. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed: May 15, 2021.

[42] Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments.* February. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed: May 15, 2021.

years of operations. Cancer risk exposure levels of students at nearby schools were evaluated using exposure parameters for children in the 2-to-9 age range for a 10-year period because students at Beechwood School could attend from "kinder prep" through the eighth grade. Students would be exposed to 3.23 years of construction and 6.77 years of operations. This 10-year exposure duration represents a conservative scenario for students at the TIDE Academy because students attend the high school for only 4 years, and the daily breathing rates of high school-aged students is lower than those of elementary-aged students. The evaluation of chronic non-cancer risks and annual $PM_{2.5}$ concentrations was based on maximum annual emissions for construction and operations separately. In contrast to cancer risks, an overlap scenario involving construction and operations was not evaluated because the maximum level of construction emissions would occur in a year during construction that would not overlap with operations. Refer to Appendix 3.2-2 for the risk calculations and additional assumptions.

Summary of Analysis in the ConnectMenlo EIR

An overview of the air quality impacts and required mitigation measures, as identified in the ConnectMenlo Final EIR, is provided below.

Clean Air Plan

The ConnectMenlo Final EIR determined that ConnectMenlo would be consistent with the goals and applicable control measures of the 2010 Bay Area Clean Air Plan. In addition, the ConnectMenlo Final EIR determined that regional growth projections for vehicle miles traveled (VMT), population, and employment would not exceed forecasts in the Association of Bay Area Governments/Metropolitan Transportation Commission 2010 Plan Bay Area, which was the current version of Plan Bay Area at that time. For these reasons, the ConnectMenlo Final EIR determined that implementation of ConnectMenlo would be consistent with air quality planning efforts in the SFBAAB, and this impact would be less than significant.

Criteria Air Pollutants

The ConnectMenlo Final EIR found that construction emissions associated with individual development projects could generate emissions of criteria air pollutants and TACs. This would require subsequent environmental review of future development projects to assess potential impacts relative to BAAQMD-recommended project-level thresholds. Construction emissions from buildout of future projects in Menlo Park, including the Proposed Project, would include 1) exhaust emissions from off-road diesel-powered construction equipment; 2) dust generated by demolition, grading, earthmoving, and other construction activities; 3) exhaust emissions from on-road vehicles; and 4) off-gas emissions of ROG associated with the application of asphalt, paint, and architectural coatings. The ConnectMenlo Final EIR found that construction-related impacts would be significant and identified Mitigation Measures AQ-2b1 and AQ-2b2 to reduce impacts to the extent feasible. Mitigation Measure AQ-2b1 requires the implementation of BAAQMD basic construction mitigation measures for all construction projects in the city, and Mitigation Measure AQ-2b2 requires implementation of BAAQMD-approved mitigation measures if subsequent environmental review determines that future individual development projects in Menlo Park could generate construction exhaust emissions in excess of BAAQMD-recommended significance thresholds. Even with implementation of these measures, the ConnectMenlo Final EIR determined that construction-period impacts associated with buildout of ConnectMenlo would be significant and unavoidable. The impact analysis below identifies which mitigation measures, including ConnectMenlo mitigation measures and Project-specific mitigation measures, would apply to the Proposed Project.

The ConnectMenlo Final EIR found that emissions of criteria air pollutants and precursors associated with the operation of new development under ConnectMenlo would generate a substantial net increase in emissions that would exceed BAAQMD's regional significance thresholds. Because emissions generated by cumulative development within the city could exceed the regional significance thresholds, any development project could contribute to an increase in adverse health effects in the SFBAAB until the attainment standards are met. Criteria air pollutant emissions would be generated from onsite area sources (e.g., landscaping equipment, consumer products), vehicle trips generated by individual projects, and onsite combustion of natural gas for space and water heating. The ConnectMenlo Final EIR identified Mitigation Measure AQ-2a, which requires future development projects in Menlo Park that would be subject to CEQA and would exceed BAAQMD's screening criterion, based on project size, to quantify operational emissions of criteria air pollutants and precursors and compare them to BAAQMD's mass emission level thresholds of significance. Furthermore, if the project-level emissions would exceed BAAQMD's mass emissions thresholds, additional feasible project-level mitigation measures must be identified and implemented.

Finally, the ConnectMenlo Final EIR determined that the increase in traffic associated with buildout under ConnectMenlo would not result in, or contribute to, localized concentrations of CO that would exceed applicable federal and state ambient air quality standards.

Exposure of Sensitive Receptors to Pollutant Concentrations

The ConnectMenlo Final EIR required implementation of Mitigation Measure AQ-3a to reduce impacts associated with the generation of DPM emissions from non-residential land uses in the city. The ConnectMenlo Final EIR also determined that the placement of new residential and other sensitive land uses (e.g., hospitals, nursing homes, day-care centers) near major sources of air pollution, such as warehouses, freeways, and industrial areas, could expose sensitive receptors to elevated concentrations of DPM or other TACs. As such, the ConnectMenlo Final EIR included Mitigation Measure AQ-3b to ensure that air pollution levels at sensitive receptors meet the incremental risk thresholds established by BAAQMD. The impacts would be less than significant.

Impacts and Mitigation Measures

Impact AQ-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan. The Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. (LTS/M)

Since publication of the ConnectMenlo Final EIR, BAAQMD adopted its most recent clean air plan,[43] the 2017 Clean Air Plan, which is a comprehensive plan to improve air quality and protect public health in the SFBAAB. The 2017 Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities that are most heavily affected by air pollution; and reduce GHG emissions to protect the climate. A project would be consistent with the Clean Air Plan if it 1) supports the goals of the Clean Air Plan, 2) includes applicable control measures from the Clean Air Plan, and 3) would not disrupt or hinder implementation of any control measure included in the Clean Air Plan. The sections that follow provide an evaluation of the Proposed Project's consistency with each of the criteria.

[43] Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan*. April 17. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: May 15, 2021.

Clean Air Plan Goals

The primary goals of the Clean Air Plan are to attain air quality standards, reduce the population's exposure to pollutants, protect public health in the Bay Area, reduce GHG emissions, and protect the climate. BAAQMD has established mass emissions thresholds of significance for determining whether emissions associated with construction or operation of a project would represent a cumulatively considerable contribution to adverse air quality in the SFBAAB and conflict with planning efforts to attain or maintain ambient air quality standards. The health and hazard thresholds were established to protect public health. As discussed under Impact AQ-2, below, implementation of the Proposed Project would result in less-than-significant impacts related to operational emissions. Therefore, the Proposed Project would not conflict with the goals of the Clean Air Plan.

Development of the 2017 Clean Air Plan strategy was based on regional population and employment projections for the Bay Area compiled by the Association of Bay Area Governments during preparation of Plan Bay Area. Demographic trends incorporated into Plan Bay Area were used to determine VMT in the Bay Area; BAAQMD uses the trends to forecast future air quality. The SFBAAB is currently designated a nonattainment area for O_3 (federal and state ambient air quality standards), $PM_{2.5}$ (federal and state ambient air quality standards), and PM_{10} (state ambient air quality standards only). The 2017 Clean Air Plan is based on Plan Bay Area. According to the ConnectMenlo EIR, the 2017 Clean Air Plan's growth projections would exceed the projections of the Association of Bay Area Governments. Despite the additional growth, the Proposed Project would be consistent with the goals and policies of the ConnectMenlo EIR. Furthermore, Section 3.5, *Population and Housing,* notes that it was later determined that the ConnectMenlo growth projections would align with regional projections. Therefore, the Proposed Project would not conflict with the goals of the 2017 Clean Air Plan.

Clean Air Plan Control Measures

Control strategies in the Clean Air Plan include measures in the following categories: Stationary-Source Control Measures, Transportation Control Measures, Energy Control Measures, Building Control Measures, Agriculture Control Measures, Natural and Working Lands Control Measures, Waste Management Control Measures, and Water Control Measures. The Proposed Project's consistency with each of these strategies is discussed below.

Stationary-Source Control Measures

The stationary-source control measures, which are designed to reduce emissions from stationary sources such as metal melting facilities, cement kilns, refineries, and glass furnaces, are incorporated into rules adopted by BAAQMD and then enforced by BAAQMD permit and inspection programs. The Proposed Project would include a diesel-powered emergency generator, which would require a permit from BAAQMD to operate. As part of the permit review process, operation of the emergency generator would be required to comply with BAAQMD permitting requirements, which incorporate stationary-source control measures from the Clean Air Plan; therefore, the Proposed Project would be consistent with stationary-source control measures in the Clean Air Plan.

Transportation Control Measures

As part of the Clean Air Plan, BAAQMD identifies transportation control measures to decrease emissions of criteria pollutants, TACs, and GHGs by reducing demand for motor vehicle travel, promoting efficient vehicles and transit service, decarbonizing transportation fuels, and electrifying motor vehicles and equipment. The Proposed Project would develop an office building within the Bayfront Area of Menlo

Park. The majority of the Bayfront Area is made up of the city's industrial and business park land uses. It includes the city's entire existing M-2 (General Industrial) zoning district, along with some high-density residential land uses. The Bayfront Area contains major regional transportation links, including US 101, Bayfront Expressway, Willow Road, and University Avenue, all of which are heavily utilized corridors that are challenging to cross and act as barriers for biking and walking. The 2016 update to the Land Use and Circulation Elements, as well as corresponding rezoning of land in the Bayfront Area under ConnectMenlo, was designed to change land use and circulation patterns and create a built environment that supports live/work/play activities with increased density, a diversity of uses, and a street network for safe and sustainable travel. The Project is one of the first office projects proposed in the Bayfront Area since the Project site was rezoned from M-2 (General Industrial) to O-B (Office Bonus) in late 2016.

Consistent with the Menlo Park TIA guidelines,[44] vehicle trip reductions were taken into account in the proposed Transportation Demand Management (TDM) program. The existing buildings (Buildings 1 and 2) on the Campus Property follow an existing TDM program, which remains unchanged. Building 3 associated with the Proposed Project would follow the TDM program included in Appendix 3.1-2 of this EIR. The TDM program would include measures to reduce the number of vehicle trips as well as VMT. These involve bicycle parking, pedestrian network improvements, commuter trip-reduction marketing, and a subsidized or discounted transit program. With implementation of TDM program measures, the Proposed Project would achieve the reductions necessary to comply with the VMT threshold of 12.6 miles for Transportation Analysis Zone 3069. In addition, the Project site is served by public transit facilities, which, together with the Proposed Project's bicycle and pedestrian facilities, would help to reduce the amount of travel by single-occupancy vehicles. The Project would provide safe and convenient access for pedestrians and improve pedestrian safety through design efforts that would include paved walkways between the office building and parking structure, paved walkways to neighboring parcels, and a multi-use path to a future bicycle and pedestrian path. Motor vehicles associated with operation of the Proposed Project would be subject to regulatory programs related to fuel and vehicle efficiency as well as vehicle electrification, all of which would result in emissions reductions. Therefore, the Proposed Project would promote BAAQMD initiatives to reduce the number of vehicle trips as well as VMT and increase the use of alternative means of transportation. The Proposed Project would be consistent with the transportation control measures in the Clean Air Plan.

Energy Control Measures

The Clean Air Plan also includes energy control measures, which are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area as well as the carbon intensity of electricity used by switching to less GHG-intensive fuel sources for electricity generation. Because these measures apply to electrical utility providers and local government agencies, not individual projects, the energy control measures of the Clean Air Plan are not applicable to the Proposed Project. However, as required under Section 16.43.140 of the Menlo Park Municipal Code, the Proposed Project would meet 100 percent of its energy demand (electricity) through any combination of the following measures:

(i) Onsite energy generation;

(ii) Purchase of 100 percent renewable electricity through Peninsula Clean Energy or Pacific Gas and Electric Company in an amount equal to the annual energy demand of the Project;

[44] Menlo Park, City of. 2020a. *Menlo Park Transportation Impact Analysis Guidelines.*

(iii) Purchase and installation of local renewable energy generation within the city of Menlo Park in an amount equal to the annual energy demand of the Project; and/or

(iv) Purchase of certified renewable energy credits and/or certified renewable energy offsets annually in an amount equal to the annual energy demand of the Project.

The Proposed Project would meet City requirements regarding the provision of charging spaces for electric vehicles and the installation of a solar photovoltaic system to generate renewable electricity onsite. Specifically, the Proposed Project would install 49 vanpool/electric-vehicle stalls, along with 44 charging stations and electric-vehicle-capable stalls**.** Furthermore**,** the Proposed Project's photovoltaic solar system is anticipated to generate approximately 146,000 to 194,7000 kilowatt hours per year (kWh/year).

The Proposed Project would not include any natural gas infrastructure (e.g., natural gas connections or natural gas appliances) in its design. Thus, the Project's only source of building energy would be electricity, which would be 100 percent renewable. Therefore, the Proposed Project would comply with applicable energy control measures in the Clean Air Plan.

Building Control Measures

BAAQMD has authority to regulate emissions from certain sources in buildings, such as boilers and water heaters, but has limited authority to regulate buildings themselves. Therefore, the strategies in the control measures for this sector focus on working with local governments that do have authority through local building codes to facilitate the adoption of BMPs and policies related to GHGs. Although the building control measures of the Clean Air Plan are not applicable, the Proposed Project would comply with the California Green Building Standards Code (CALGreen) and other code amendments, including the City's reach codes. In addition, the Proposed Project would be designed to achieve Leadership in Energy and Environmental Design (LEED) Gold certification for building design and construction. Therefore, the Proposed Project would be consistent with applicable building control measures in the Clean Air Plan.

Agriculture Control Measures

The primary focus of agriculture control measures in the Clean Air Plan is to reduce emissions of methane. Because the Proposed Project would not include any agricultural activities, the agriculture control measures of the Clean Air Plan would not be applicable to the Proposed Project.

Natural and Working Lands Control Measures

The natural and working lands control measures focus on increasing carbon sequestration on rangelands and wetlands. They also encourage local governments to adopt ordinances that promote urban tree planting. Because the Proposed Project would not disturb rangelands or wetlands, the natural and working lands control measures of the Clean Air Plan would not be applicable to the Proposed Project.

Waste Management Control Measures

The waste management control measures in the Clean Air Plan focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The Proposed Project would comply with local requirements for waste management (e.g., recycling and composting). Therefore, the Proposed Project would be consistent with the waste management control measures of the Clean Air Plan.

Water Control Measures

The water control measures in the Clean Air Plan focus on reducing emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works, and promoting the use of biogas recovery systems. Because these measures apply to publicly owned treatment works and local government agencies, not individual projects, the water control measures would not be applicable to the Proposed Project.

MITIGATION MEASURES. As discussed above, the agriculture control measures, natural and working lands control measures, and water control measures of the Clean Air Plan would not be applicable to the Proposed Project. The Proposed Project would be consistent with the applicable stationary-source control measures, transportation control measures, energy control measures, building control measures, and waste control measures included in the Clean Air Plan. As discussed further in Impact AQ-2, construction of the Proposed Project would result in an exceedance of BAAQMD's mass emission threshold for NO_X. To reduce NO_X emissions, the Proposed Project would implement Project-specific Mitigation Measure AQ-1.1.

AQ-1.1 *Use Clean Diesel-Powered Equipment during Construction to Control Construction-Related Emissions.* The Project Sponsor shall require its contractors to ensure that all off-road diesel-powered equipment greater than 50 horsepower used during construction is equipped with EPA-approved Tier 4 Final engines to reduce NO_X and DPM. The construction contractor will submit evidence of the use of EPA-approved Tier 4 Final engines, or cleaner, to the City prior to the commencement of Project construction activities.

With implementation of Mitigation Measure AQ-1.1, the Proposed Project's construction emissions of criteria air pollutants and precursors would be less than significant. Therefore, the Proposed Project would not disrupt or hinder implementation of the Clean Air Plan, and this impact would be ***less than significant with mitigation***.

Impact AQ-2: Cumulatively Considerable Net Increase in Criteria Pollutants. The Proposed Project would not result in a cumulative net increase in any criteria pollutant for which the Project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard. (LTS/M)

According to BAAQMD's CEQA Guidelines, to meet air quality standards for criteria air pollutant and air precursor impacts, the Proposed Project must not:

- Generate daily construction emissions of ROG, NO_X, or $PM_{2.5}$ (exhaust) greater than 54 pounds per day or PM_{10} exhaust emissions greater than 82 pounds per day.
- Generate daily construction emissions of fugitive PM10 and PM2.5 without the implementation of BAAQMD recommended BMPs.
- Generate operational emissions of ROG, NO_X, or $PM_{2.5}$ greater than 10 tons per year, or 54 pounds per day, or PM_{10} emissions greater than 15 tons per year, or 82 pounds per day.

Construction

Construction activities would generate emissions of criteria air pollutants and precursors from off-road equipment exhaust, construction workers' vehicles as well as heavy-duty trucks traveling to and from the Project site, the application of architectural coatings, and paving activities. Fugitive PM_{10} and $PM_{2.5}$ dust would also be generated during soil movement and ground disturbances such as grading and excavation. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously. To provide a conservative analysis, maximum daily

emissions estimates were calculated to assess construction-related emissions. Maximum daily emissions typically occur during phases with the greatest intensity of construction activities as well as times when multiple construction phases take place on the same day. The maximum levels of unmitigated criteria air pollutants generated daily during Project construction are provided in Table 3.2-6. Please refer to Appendix 3.2-1 for modeling input and output parameters, detailed assumptions, and daily construction-related emissions estimates.

Table 3.2-6. Unmitigated Maximum Daily Construction Emissions – Criteria Pollutants and Precursors

	Maximum Daily Emissions, Unmitigated (lb/day)[a,b]					
Construction Year	**ROG**	**NO_X**	**PM_{10} Fugitive**	**PM_{10} Exhaust**	**$PM_{2.5}$ Fugitive**	**$PM_{2.5}$ Exhaust**
2022	6	**85**	25	3	4	3
2023	7	74	23	3	3	3
2024	28	76	17	3	3	3
2025	28	74	13	3	4	3
Maximum Daily Emissions[c]	**28**	**85**	**25**	**3**	**4**	**3**
BAAQMD Significance Thresholds	54	54	**n/a**	82	**n/a**	54
Exceeds Threshold?	**No**	**Yes**	**n/a**	**No**	**n/a**	**No**

Source: Modeling files provided in Appendix 3.2-1.

Notes: lb/day = pounds per day; ROG= reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less; n/a = BAAQMD has not developed a mass emission threshold for this pollutant. Exceedances are **bolded and underlined**.

a. BAAQMD's recommended mass emission thresholds for construction-related emissions for PM_{10} and $PM_{2.5}$ apply only to exhaust emissions and not to fugitive dust emissions. Fugitive dust emissions would be controlled with best management practices.

b. Specific Project phasing and emissions per phase can be viewed in Appendix 3.2-1.

c. Maximum daily totals may not add exactly because of rounding.

As shown in Table 3.2-6, construction of the Proposed Project would result in emissions that would exceed BAAQMD's recommended mass emissions threshold for NO_X (i.e., 54 pounds per day). The mass emission thresholds for other criteria air pollutants and precursors would not be exceeded. An exceedance of the mass emissions threshold for NO_X would be caused by the exhaust emitted by off-road equipment used onsite (e.g., excavators, backhoes, bulldozers) as well as offsite truck trips (e.g., to haul construction material). Therefore, construction-generated emissions of NO_X would represent a cumulatively considerable increase in O_3 precursors. This impact would be potentially significant, and mitigation would be required.

MITIGATION MEASURES. The following mitigation measures from the ConnectMenlo EIR would apply to construction of the Proposed Project:

AQ-2b1 *(ConnectMenlo EIR) Comply with the Bay Area Air Quality Management District's Basic Control Measures for Reducing Construction Emissions.* Prior to building permit issuance, the City shall require applicants for all development projects in the city to comply with the current Bay Area Air Quality Management District's (BAAQMD) basic control measures for reducing construction emissions of PM_{10} (Table 8-1, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of the BAAQMD CEQA Guidelines).[45]

[45] Table 8-1 includes measures that require construction equipment or vehicle idling times to be minimized (Measure 6) and for construction equipment to be maintained and properly tuned (Measure 7). Measure 6 and 7 would help reduce on-site GHG emissions from construction equipment and vehicles.

AQ-2b2 *(ConnectMenlo EIR).* Prior to issuance of building permits, development project applicants that are subject to CEQA and exceed the screening sizes in BAAQMD's CEQA Guidelines shall prepare and submit to the City of Menlo Park a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with the BAAQMD methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in the BAAQMD CEQA Guidelines, the City of Menlo Park shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below the thresholds (e.g., Table 8-2, Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions above the Threshold of the BAAQMD CEQA Guidelines, or applicable construction mitigation measures subsequently approved by BAAQMD). These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Building Division and/or Planning Division.

In addition to the ConnectMenlo mitigation measures above, Project-specific Mitigation Measure AQ-1.1 would also be implemented (see Impact AQ-1). Mitigation Measure AQ-1.1 would reduce NO_X emissions by an average of approximately 65 percent across all phases, as shown in Table 3.2-7. With implementation of this mitigation measure, construction-related emissions of NO_X would not exceed BAAQMD's mass emission threshold of 54 pounds per day. Therefore, with implementation of ConnectMenlo Mitigation Measure AQ-2b2 and Project-specific Mitigation Measure AQ-1.1, Project-related construction activities would not result in a cumulatively considerable net increase in any criteria air pollutant for which the SFBAAB is designated as a nonattainment area with respect to the federal or state ambient air quality standards. This impact would be ***less than significant with mitigation***.

Table 3.2-7. Estimated Mitigated Maximum Daily Construction Emissions

	Maximum Daily Emissions, Mitigated (lb/day)[a,b]					
Construction Phase	**ROG**	**NO_X**	**PM_{10} Fugitive**	**PM_{10} Exhaust**	**$PM_{2.5}$ Fugitive**	**$PM_{2.5}$ Exhaust**
2022	2	37	25	<1	4	<1
2023	3	31	23	<1	3	<1
2024	26	38	17	1	3	1
2025	26	37	13	1	4	1
Maximum Daily Emissions[c]	**26**	**38**	**25**	**1**	**4**	**1**
BAAQMD Significance Thresholds	54	54	**n/a**	82	**n/a**	54
Exceeds Threshold?	**No**	**No**		**No**		**No**

Source: Modeling files provided in Appendix 3.2-1.

Notes:

lb/day = pounds per day; ROG= reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less; n/a = BAAQMD has not developed a mass emission threshold for this pollutant.

a. BAAQMD's recommended mass emission thresholds for construction-related emissions for PM_{10} and $PM_{2.5}$ apply only to exhaust emissions and not fugitive dust emissions. Fugitive dust emissions would be controlled using best management practices.

b. Specific Project phasing and emissions per phase can be viewed in Appendix 3.2-1.

c. Maximum daily totals may not add exactly because of rounding.

BAAQMD's CEQA Guidelines consider fugitive dust impacts to be less than significant with application of BMPs. If BMPs are not implemented, then dust impacts would be potentially significant. Therefore, BMPs would be required and implemented to reduce impacts from construction-related fugitive dust emissions, including any cumulative impacts. In addition, fugitive dust emissions would be controlled with implementation of ConnectMenlo Mitigation Measure AQ-2b1 and ConnectMenlo Mitigation Measure AQ-2b2. With implementation of BAAQMD-recommended BMPs, ConnectMenlo Mitigation Measure AQ-2b1, and ConnectMenlo Mitigation Measure AQ-2b2, fugitive dust emissions would be reduced, and the impact would be less than significant.

Operation

Emissions of criteria pollutants and precursors that would be generated during Project operations were quantified using CalEEMod and EMFAC2021. Long-term operational emissions would be generated primarily by vehicle trips associated with employees who commute and delivery truck trips, with additional emissions from area sources (e.g., cleaning supplies, architectural coatings, landscape maintenance equipment). Stationary-source emissions would be associated with intermittent use of a diesel-powered emergency generator, with a rating of 400 kilowatts, that would be tested approximately 15 minutes per month. As noted above, the Proposed Project would not include any natural gas infrastructure in its design.

The Proposed Project's estimated daily operational emissions of criteria air pollutants and precursors for buildout year 2025 are summarized in Table 3.2-8 and compared to BAAQMD's recommended mass emission thresholds. For air quality modeling input and output parameters, detailed assumptions, and daily operational emissions estimates, refer to Appendix 3.2-1.

Table 3.2-8. Estimated Unmitigated Maximum Daily Operational Emissions (Buildout Year 2025)

	Maximum Daily Emissions (lb/day)			
Emissions Source[b]	**ROG**	**NO_X**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Area Sources	6	< 1	< 1	< 1
Vehicle Trips (Mobile Sources)	10	4	19	5
Backup Diesel Generator (Stationary Source)	< 1	< 1	< 1	< 1
Total Operational Emissions	**16**	**5**	**19**	**5**
BAAQMD Significance Threshold	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Modeling files provided in Appendix 3.2-1.

lb/day = pounds per day; ROG= reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter

a. BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

b. The Proposed Project would not include any natural gas infrastructure.

As shown in Table 3.2-8, operation of the Proposed Project would not generate levels of ROG, NO_X, or particulate matter that would exceed BAAQMD-recommended mass emissions thresholds. Therefore, operation of the Proposed Project would not result in a cumulatively considerable net increase in any criteria air pollutant for which the SFBAAB is designated as a nonattainment area with respect to the federal or state ambient air quality standards. This impact would be ***less than significant***.

Impact AQ-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations. The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. (LTS/M)

Sensitive land uses are generally considered to include those uses where an exposure to pollutants could result in health-related risks for individuals. Per BAAQMD, typical sensitive receptors are residences, hospitals, and schools. Parks and playgrounds where sensitive receptors (e.g., children and seniors) are present would also be considered sensitive receptors.[46] The nearest sensitive land uses are students at the TIDE Academy and Beechwood School, as well as residences southwest and southeast of the Project site.

Like many land use development projects, the Proposed Project has the potential to expose sensitive receptors to localized concentrations of CO, airborne dust containing asbestos, DPM, and $PM_{2.5}$. These pollutants are addressed separately in greater detail below.

Localized Carbon Monoxide Hot Spots

Continuous engine exhaust may elevate localized CO concentrations, resulting in hot spots. Receptors exposed to CO hot spots may have a greater likelihood of developing adverse health effects. CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations.

Peak-hour traffic volumes at 29 intersections in the Project vicinity were analyzed to determine whether CO emitted by Project-generated traffic would exceed BAAQMD screening criteria. Maximum traffic volumes at the intersections would be less than BAAQMD's recommended screening criterion of 44,000 vehicles per hour. Also, intersection traffic volumes under all scenarios would not exceed the screening criterion of 24,000 vehicles per hour that BAAQMD recommends for areas where vertical and/or horizontal mixing is substantially limited. Furthermore, with implementation of TDM program measures, the Proposed Project would be consistent with the requirements of the City/County Association of Governments Congestion Management Plan. The Proposed Project would not result in, or contribute to, a localized concentration of CO that would exceed the applicable NAAQS or CAAQS. This impact would be less than significant.

Toxic Air Contaminants

Asbestos

Asbestos is a naturally occurring mineral that was previously used in building construction because of its heat resistance and strong insulating properties. Exposure to airborne dust containing asbestos, however, has been shown to cause many disabling and fatal diseases, including lung cancer, mesothelioma, and pleural plaques. Demolition of the existing hardscape (asphalt and concrete) on the Project site may expose workers and nearby receptors to asbestos if the material was used during construction of the original hardscape. However, the Proposed Project would comply with BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation, and Manufacturing. The purpose of this rule is to prevent emissions of asbestos to the atmosphere during demolition and building renovation. Because the applicant would be required to control asbestos emissions according to BAAQMD regulations, receptors would not be exposed to substantial asbestos risks, and impacts associated with asbestos emissions would be less than significant.

[46] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines.* May. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: May 2021.

Diesel Particulate Matter and Localized $PM_{2.5}$

DPM is a carcinogen contained in the exhaust of diesel internal-combustion engines. Project-related construction activities would generate DPM ($PM_{2.5}$ exhaust)[47] from off-road equipment and heavy-duty trucks. $PM_{2.5}$ exhaust and fugitive dust emissions would be generated from off-road equipment, onsite soil movement, and on-road travel by heavy-duty trucks and workers' vehicles.

Operational activities would generate DPM from delivery trucks and the emergency generator. $PM_{2.5}$ exhaust and fugitive dust emissions would be generated from on-road travel involving employees' vehicles and delivery trucks, delivery truck idling, and operation of the emergency generator. These activities could expose offsite receptors to incremental increases in health risks.

Health impacts from exposure to DPM include cancer risks and chronic non-cancer risks. The HRA for the Proposed Project included an evaluation of annual concentrations of $PM_{2.5}$ from exhaust and fugitive dust sources. As discussed previously, the cancer risk for residents and students at nearby schools was evaluated under two scenarios, 1) construction plus operations and 2) operations only. Table 3.2-9 and Table 3.2-10 (under *Scenario 1: Construction plus Operations*) present the unmitigated incremental increases in health risk for the offsite residential receptor with maximum exposure and the offsite student receptor within 1,000 feet of the Proposed Project.

Scenario 1: Construction plus Operations

Table 3.2-9 presents the maximum health risks for residential and student receptors. The evaluation of cancer risk was based on an exposure duration of 3.23 years for construction and 26.77 years for operations. For this scenario, the non-cancer hazard index and annual $PM_{2.5}$ concentrations were based solely on construction emissions because annual DPM and $PM_{2.5}$ emissions were highest for construction activities in years that did not overlap with operations. As shown in Table 3.2-9, the unmitigated health risk results would not exceed BAAQMD's recommended health risk thresholds for the non-cancer hazard index and annual $PM_{2.5}$ concentrations; however, the Proposed Project would exceed the cancer risk threshold for the maximally affected residential receptor. Therefore, impacts would be potentially significant.

Table 3.2-9. Estimated Unmitigated Project-Level Health Risk Results from Construction plus Operations

Offsite Receptor Type	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]	Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$)[b]
Resident	21.8	0.014	0.23
Students at Schools	2.9	0.003	0.04
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**Yes for Resident**	**No**	**No**

Source: See Appendix 3.2-2 for detailed modeling files.

Notes:

$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less

a. The evaluation of cancer risk set forth in the HRA was based on an exposure duration of 3.23 years during Project construction and 26.77 years during Project operations.

b. Non-cancer hazard index and annual $PM_{2.5}$ concentrations were based solely on construction-generated emissions.

[47] Per BAAQMD guidance, $PM_{2.5}$ exhaust is used as a surrogate for DPM.

MITIGATION MEASURES. To mitigate the cancer risk exceedance, Mitigation Measure AQ-1.1 would be implemented. ConnectMenlo EIR Mitigation Measure AQ-3a and Mitigation Measure AQ-3b do not apply to the Proposed Project. Mitigation Measure AQ-3a requires an HRA to be conducted if a non-residential project has the potential to generate 100 or more diesel truck trips per day or result in 40 or more trucks operating diesel-powered transportation refrigeration units within 1,000 feet of a sensitive land use (e.g., residences, schools, hospitals, nursing homes). The Proposed Project would not result in truck activity at these levels; therefore, the requirements of Mitigation Measure AQ-3a are not applicable to the Proposed Project. ConnectMenlo Mitigation Measure AQ-3b requires an HRA to be conducted if a residential or other sensitive land use project were to be sited within 1,000 feet of a major source of TACs. Because the Proposed Project would not include development of residential land uses or other types of sensitive receptors, ConnectMenlo Mitigation Measure AQ-3b would not be applicable to the Proposed Project.

As shown in Table 3.2-10, with implementation of Project-specific Mitigation Measure AQ-1.1, the incremental increase in the health risk would be reduced to a level that would be less than all BAAQMD-recommended thresholds. Therefore, with implementation of Mitigation Measure AQ-1.1, Project-generated emissions would not expose sensitive receptors to substantial pollutant concentrations and associated health risks, and impacts would be ***less than significant with mitigation*.**

Table 3.2-10. Estimated Project-Level Health Risk Results from Construction plus Operations with Mitigation

Offsite Receptor Type	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]	Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$)[b]
Resident	5.3	0.005	0.17
Students at Schools	1.2	0.002	0.03
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**

Source: See Appendix 3.2-2 for detailed modeling files.

Notes:

$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter

a. The evaluation of cancer risk set forth in the HRA was based on an exposure duration of 3.23 years for construction and 26.77 years for operations.

b. Non-cancer hazard index and annual $PM_{2.5}$ concentrations were based solely on annual construction emissions.

Scenario 2: Operations Only

Table 3.2-11 presents the incremental increase in health risks for maximally affected residential and student receptors with respect to operational emissions only. For the reasons stated above, ConnectMenlo EIR Mitigation Measure AQ-3a and Mitigation Measure AQ-3b would not apply to the Proposed Project. As shown in Table 3.2-11, the unmitigated health risk from operations would not exceed any of the BAAQMD-recommended thresholds. Therefore, unmitigated operational emissions would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be ***less than significant***.

Table 3.2-11. Estimated Unmitigated Project-Level Health Risk Results from Operations Only

Offsite Receptor Type	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]	Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$)[b]
Resident	0.55	0.0001	0.14
Student	0.26	0.0001	0.08
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**

Source: See Appendix 3.2-2 for detailed modeling files.
Notes:
$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter
[a] The evaluation of cancer risk set forth in the HRA was based on 30 years of exposure to operational emissions.

Impact AQ-4: Other Air Emissions. The Proposed Project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. (LTS)

Although offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and air districts. According to BAAQMD, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants.[48] Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, and schools, warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas.

Potential odor emitters during construction include diesel exhaust and evaporative emissions generated by asphalt paving and the application of architectural coatings. Construction-related activities near existing receptors would be temporary in nature, and construction activities would not result in nuisance odors. Potential odor emitters during operations would include exhaust from vehicles and fumes from the reapplication of architectural coatings as part of ongoing building maintenance. However, odor impacts would be limited to circulation routes, parking areas, and areas immediately adjacent to recently painted structures. Although such brief exhaust- and paint-related odors may be considered adverse, they would not be atypical of developed urban areas and would not affect a substantial number of people or rise to the level of a significant impact under CEQA. Because the Proposed Project would not result in a new, substantial or long-term source of odors, this impact would be ***less than significant.***

[48] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: May 14, 2021.

Cumulative Impacts

Impact C-AQ-1: The Proposed Project would not result in a cumulative impact related to conflicting with or obstructing implementation of the applicable air quality plan (LTS/M).

The analysis of consistency with the Clean Air Plan is inherently cumulative. As discussed above in Impact AQ-1, the Proposed Project would not conflict with the Clean Air Plan. Thus, as the Proposed Project would not conflict with the Clean Air Plan, cumulative impacts would be ***less than significant with mitigation***.

Impact C-AQ-2: The Proposed Project would not result in a cumulatively considerable net increase in any criteria pollutants (LTS/M).

As discussed above in Impact AQ-2, the Proposed Project would not exceed the established BAAQMD regional construction and operational mass thresholds, which are inherently cumulative. Thus, as the Proposed Project would not exceed these regional thresholds, the Proposed Project would not slow the regional process toward attaining the NAAQS and would not cause a cumulative impact. Cumulative criteria pollutant emissions would be ***less than significant with mitigation***.

Impact C-AQ-3: The Proposed Project would not make a cumulatively considerable contribution to an impact related to Toxic Air Contaminant emissions (LTS/M)

According to BAAQMD's CEQA Guidelines, combined health risk levels should be determined for all TAC sources within 1,000 feet of a project site and compared to BAAQMD's cumulative health risk thresholds.[49]

Nearby TAC sources as well as TACs associated with construction and operation of the Proposed Project could contribute to a cumulative health risk for sensitive receptors near the Project site. BAAQMD's inventory of health risk levels from stationary sources was used to estimate the combined levels of health risk from existing stationary sources in combination with the Proposed Project. Geographic information system raster files provided by BAAQMD were used to estimate roadway and railway emissions.[50] The methods used to estimate Project-related TAC emissions are described under Impact AQ-3, and additional detail is provided in Appendix 3.2-2. The results of the cumulative impact assessment for offsite residential receptors and schoolchildren are summarized in Table 3.2-12 and Table 3.2-13, respectively.

[49] Ibid.

[50] Winkel, Jackie. Principal environmental planner, Bay Area Air Quality Management District. April 12, 2018—email to Darrin Trageser, ICF, Sacramento, CA, regarding GIS files containing data regarding background health risks from railroads, major roads, and highway sources within BAAQMD jurisdiction.

Table 3.2-12. Maximum Mitigated Cumulative Health Risks—Residential

Source	Maximum Affected Residential Receptor		
	Cancer Risk (per million)	**Non-Cancer Chronic Hazard Index[a]**	**Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)**
Contribution from Existing Sources for Scenario 1			
Stationary	14.50	0.020	0.10
Roadway	61.20	0.000	1.15
Rail	3.11	0.000	0.01
Existing Total	78.81	0.02	1.26
Contribution from Project for Scenario 1			
Project Construction (3.23-year exposure duration)	5.03	0.005	0.17
Project Operations (26.77-year exposure duration)	0.27	—	—
Existing + Construction + Operations (cancer only)	**84.11**	—	—
Existing + Construction (chronic HI/annual $PM_{2.5}$)	—	**0.025**	**1.43**
BAAQMD Cumulative Thresholds	100	10.0	0.8
Exceeds Thresholds?	**No**	**No**	**Yes**
Contribution from Existing Sources for Scenario 2			
Stationary	14.50	0.02	0.10
Roadway	64.21	0.00	1.12
Rail	3.14	0.00	0.01
Existing Total	**81.85**	**0.02**	**1.22**
Contribution from Project for Scenario 2			
Project Operations (30-year exposure duration)	0.55	0.0001	0.14
Existing + Operations	82.40	0.02	1.36
BAAQMD Cumulative Thresholds	100.0	10.0	0.80
Exceeds Thresholds?	**No**	**No**	**Yes**

Source: See Appendix 3.2-2 for detailed modeling files.

Notes:

$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less

a. Data were not available for chronic values associated with roadway and rail sources.

Table 3.2-13. Maximum Mitigated Cumulative Health Risks—Students at Schools

Source	Maximum Affected Residential Receptor		
	Cancer Risk (per million)	**Non-Cancer Chronic Hazard Index[a]**	**Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)**
Contribution from Existing Sources for Scenario 1			
Stationary	14.50	0.020	0.10
Roadway	18.39	0.000	0.35
Rail	3.07	0.000	0.01
Existing Total	**35.96**	**0.02**	**0.46**
Contribution from Project for Scenario 1			
Project Construction (3.23-year exposure duration)	1.03	0.002	0.03
Project Operations (26.77-year exposure duration)	0.14	—	—
Existing + Construction + Operations (cancer only)	**37.14**	—	—
Existing + Construction (chronic HI/annual $PM_{2.5}$)	—	**0.022**	**0.49**
BAAQMD Cumulative Thresholds	100	10.0	0.8
Exceeds Thresholds?	**No**	**No**	**No**
Contribution from Existing Sources for Scenario 2			
Stationary	14.50	0.02	0.10
Roadway	17.49	0.00	0.34
Rail	3.13	0.00	0.01
Existing Total	**35.13**	**0.02**	**0.45**
Contribution from Project for Scenario 2			
Project Operations (30-year exposure duration)	0.26	0.0001	0.08
Existing + Operations	35.39	0.02	0.53
BAAQMD Cumulative Thresholds	100.0	10.0	0.80
Exceeds Thresholds?	**No**	**No**	**No**

Source: See Appendix 3.2-2 for detailed modeling files.
Notes:
$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less
a. Data were not available for chronic values associated with roadway and rail sources.

Tables 3.2-12 and 3.2-13, above, show the health risk values for the Proposed Project's maximally affected receptors and the health risk contributions from existing sources. The sum of health risk values directly attributable to the Proposed Project as well as existing background health risk values were compared to BAAQMD's recommended cumulative thresholds. Individual background contributions from existing sources are provided in Appendix 3.2-2.

As shown in Table 3.2-13, the combined level of health risk from the Proposed Project and other local sources of TACs would be less than all BAAQMD-recommended cumulative health risk thresholds. Therefore, the level of health risk associated with TACs emitted by the Proposed Project in combination with the level of health risk associated with other nearby TAC sources would not result in a cumulative local health risk for students at nearby schools. This impact would be less than significant.

As shown in Table 3.2-12, the combined level of health risk from the Proposed Project and other local sources of TACs would be less than the BAAQMD-recommended cumulative health risk thresholds for cancer risk and chronic risk; however, the cumulative threshold for annual $PM_{2.5}$ concentrations would be exceeded. It should be noted that, under existing conditions, the annual average concentrations of $PM_{2.5}$ associated with the background sources exceeds the BAAQMD's cumulative threshold without any contribution of health risk from the Proposed Project's contributions. In short, this cumulative impact would be significant with or without implementation of the Proposed Project. However, as shown in Table 3.2-10 and Table 3.2-11, the Project's contribution to annual $PM_{2.5}$ concentrations would not exceed BAAQMD-established project-level thresholds after implementation of Mitigation Measure AQ-1.1 and, therefore, would not be cumulatively considerable. This impact would be ***less than significant with mitigation***.

Impact C-AQ-4: The Proposed Project would not result in a cumulatively considerable net increase in other emissions (such as those leading to odors) that would adversely affect a substantial number of people (LTS).

As discussed above, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants.[51] The Proposed Project consists of an office building, parking structure, and park. None of the Proposed Project land uses are typically associated with odor complaints. Furthermore, odors from construction would be short term in nature and limited to circulation routes, parking areas, and areas immediately adjacent to recently painted structures. Thus, construction and operation of the Proposed Project would not have the potential to create a cumulative odor impact. This impact would be ***less than significant.***

[51] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: May 14, 2021.

3.3 Greenhouse Gas Emissions

This section presents a summary of the current state of climate change science, a summary of greenhouse gas (GHG) emission sources in California, a summary of applicable regulations, quantification of Project-generated GHG emissions, a discussion about the potential contribution of Project-generated GHG emissions to global climate change, a qualitative analysis of the Proposed Project's consistency with plans to reduce GHG emissions, and mitigation for significant impacts where feasible. Supporting GHG calculations are presented in Appendix 3.2-1.

Issues identified in response to the Notice of Preparation (NOP), as well as the revised NOP, are provided in Appendix 1-2. There were no scoping comments on the Project's GHG emissions.

Existing Conditions

Environmental Setting

Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the atmosphere by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thereby enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution.[1] Rising atmospheric concentrations of GHGs, in excess of natural levels, have resulted in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures have, in turn, resulted in changes to Earth's climate system, including increases in ocean temperature and acidity, reduced sea ice, variable precipitation, and increases in the frequency and intensity of extreme weather events.[2] Large-scale changes to Earth's system are collectively referred to as *climate change.*

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017 and is increasing at a rate of 0.2°C per decade. With the current nationally determined contributions of mitigation from each country until

[1] Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Available: https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf. Accessed: May 2021.

[2] Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C.* Contribution of Working Group I, II, and III (Summary for Policy Makers). Available: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf. Accessed: May 2021.

2030, global warming is expected to increase by 3°C by 2100 and continue thereafter.[3] Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide, including California.

Greenhouse Gases

The principle anthropogenic (human-made) GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons. The primary GHGs that would be emitted by Project-related construction and operations include CO_2, CH_4, and N_2O. The principal characteristics of these pollutants are discussed below.

Carbon dioxide enters the atmosphere through fossil fuel (i.e., oil, natural gas, coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., from manufacturing cement). CO_2 is also removed from the atmosphere, or *sequestered*, when it is absorbed by plants as part of the biological carbon cycle.

Methane is emitted during the production and transport of coal, natural gas, and oil. CH_4 emissions also result from livestock and agricultural practices as well as the anaerobic decay of organic waste in municipal solid waste landfills.

Nitrous oxide is emitted by agricultural and industrial activities as well as the combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method for comparing GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2. By definition, CO_2 has a GWP of 1.

Table 3.3-1 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 3.3-1. Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
Carbon Dioxide (CO_2)	1	—[a]
Methane (CH_4)	25	12
Nitrous Oxide (N_2O)	298	114

Source: California Air Resources Board. 2020. *GHG Global Warming Potentials*. Available: https://ww2.arb.ca.gov/ ghg-gwps. Accessed: May 2021.

[a] No lifetime (years) for carbon dioxide was presented by the California Air Resources Board.

The California Air Resources Board (CARB) recognizes the importance of reducing emissions of short-lived climate pollutants, as described in the *Regulatory Setting,* to achieve the state's overall climate change goals. Short-lived climate pollutants (SLCPs) have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate-forcing impacts, when measured in terms of how they heat the

[3] Ibid.

atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO_2.[4] Given their short-term lifespan and warming impact, SLCPs are measured in terms of CO_2e using a 20-year time period. The use of GWPs with a time horizon of 20 years captures the importance of the SLCPs and gives a better perspective as to the speed at which emission controls will affect the atmosphere relative to CO_2 emission controls. The SLCP Reduction Strategy, as discussed in the *Regulatory Setting*, addresses CH_4, HFC gases, and anthropogenic black carbon. CH_4 has lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200.[5]

Greenhouse Gas Reporting

A GHG inventory is a quantification of all GHG emissions and sinks[6] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Several agencies have developed tools for quantifying emissions from certain sources.

Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea-level rise, both globally and in San Francisco Bay, as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change has occurred and will continue to occur in the future, although the precise extent will take further research to define. Specifically, the effects from global climate change in California and worldwide include the following:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates, with a corresponding increase in atmospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures.[7]
- Rising average global sea levels, due primarily to thermal expansion in the oceans and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets.[8]
- Changing weather patterns, including changes in precipitation and wind patterns, and more energetic episodes of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and intense tropical cyclones.[9]

[4] California Air Resources Board. 2017. *Short-Lived Climate Pollutant Reduction Strategy*. Available: https://ww2.arb.ca.gov/sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf. Accessed: May 2021.

[5] Ibid.

[6] A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

[7] California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: https://www.energy.ca.gov/sites/default/files/2019-07/Statewide%20Reports-%20SUM-CCCA4-2018-013%20Statewide%20Summary%20Report.pdf. Accessed: May 2021.

[8] Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C.* Contribution of Working Group I, II, and III (Summary for Policy Makers). Available: https://www.ipcc.ch/site/assets/uploads/sites/ 2/2019/05/SR15_SPM_version_report_LR.pdf. Accessed: May 2021.

[9] Ibid.

- Declining Sierra Nevada snowpack levels, which account for approximately half of the surface water storage in California. Snow levels could decline by 70 to as much as 90 percent over the next 100 years.[10]
- Increases in the number of days that could be conducive to ground-level ozone formation (e.g., clear days with intense sunlight) by the end of the 21st century in areas with high levels of ozone. The number of days could increase by 25 to 85 percent, depending on the future temperature scenario.[11]
- Increases in the potential for erosion of California's coastlines as well as seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.[12]
- The severity of drought conditions in California could be exacerbated (e.g., durations and intensities could be amplified, ultimately increasing the risk of wildfires and consequential damage).[13]
- Under changing climate conditions, agricultural operations are forecast to experience lower crop yields due to extreme heat waves, heat stress, the increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats.[14]

The impacts of climate change, such as increases in the number of heat-related events, droughts, and wildfires, pose direct and indirect risks to public health, with people experiencing worsening episodes of illness and an earlier death. Indirect impacts on public health include increases in incidents of vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.[15]

Regulatory Setting

Federal

There is currently no federal overarching law specifically related to climate change or reductions in GHG emissions. Under the Obama administration, the U.S. Environmental Protection Agency (EPA) had been developing regulations under the Clean Air Act (CAA). There have also been settlement agreements between EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating plants and refineries. In addition, EPA issued an Endangerment Finding and a Cause or Contribute Finding. EPA also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO_2 emissions from new and existing coal-fired power plants. However, on February 9, 2016, the Supreme Court issued a stay regarding these regulations pending litigation. In addition, former EPA Administrator Scott Pruitt signed a measure to repeal the Clean Power Plan. The fate of the proposed regulations is uncertain given the change in federal administrations and the pending deliberations in federal courts.

[10] California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: http://www.climateassessment.ca.gov/state/docs/20190116-StatewideSummary.pdf. Accessed: May 2021.
[11] Ibid.
[12] Ibid.
[13] Ibid.
[14] Ibid.
[15] Ibid.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration's (NHTSA's) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in GHG emissions generated by passenger cars and light-duty trucks sold in the United States. On August 2, 2018, NHTSA and EPA proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks and new standards for model years 2021 through 2026. Under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, current 2020 standards would be maintained through 2026. On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA and NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards by 1) clarifying that federal law preempts state and local tailpipe GHG standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA and NHTSA published their decision to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NTHSA published final rules to amend and establish national CO_2 and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 to 40.4 miles per gallon in future years. California, 22 other states, the District of Columbia filed a petition for review of the final rule on May 27, 2020.[16]

On April 22, 2021, NHTSA announced it proposes to repeal the SAFE Vehicles Rule, Part One, allowing California the right to set its own standards.[17] On December 12, 2021, NHTSA repealed the SAFE Vehicles Rule, Part One. On December 19, 2021, NHTSA finalized its vehicle efficiency standards rule to reach a projected industry-wide target of 40 miles per gallon by 2026, an approximately 25 percent increase over the prior SAFE rule. Lastly, on March 9, 2022, the EPA reinstated California's authority under the CAA to implement its own GHG emission standards and sales mandate for zero-emissions vehicles. This action concludes EPA reconsideration of 2019's SAFE Vehicles Rule, Part One. by finding that the actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.[18]

[16] *California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia.

[17] U.S. Department of Transportation, National Highway Transportation Safety Administration. 2021. *Corporate Average Fuel Economy Preemption.* Available: https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/cafe_preemption_nprm_04222021_1.pdf. Accessed: June 11, 2021.

[18] U.S. Environmental Protection Agency. 2022. *EPA Restores California's Authority to Enforce Greenhouse Gas Emission Standards for Cars and Light Trucks*. March 9. Available: https://www.epa.gov/newsreleases/epa-restores-californias-authority-enforce-greenhouse-gas-emission-standards-cars-and. Accessed: May 24, 2022.

State

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades. GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and then reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2°C, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected.[19] Executive Order B-55-18 further recognizes the climate stabilization goal adopted by 194 states and the European Union under the Paris Agreement. Based on worldwide scientific agreement that carbon neutrality must be achieved by midcentury, Executive Order B-55-18 establishes a state goal to achieve carbon neutrality as soon as possible but no later than 2045 and achieve and maintain net negative emissions thereafter. Executive Order B-55-18 charges CARB with developing a framework for implementing and tracking progress toward these goals. This executive order extends Executive Order S-3-05 and acknowledges the role of increased carbon sequestration on natural and working lands for the state to achieve carbon neutrality and become net carbon negative.

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emissions target for 2030 and "substantially advance toward our 2050 climate goals."[20] It also identifies the reductions needed by each GHG emission sector (e.g., industry, transportation, electricity generation). The state has also passed more detailed legislation to address GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Transportation-related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel–powered on-road vehicles. These regulations are projected to reduce GHG emissions from new vehicles by approximately 40 percent in 2025 relative to 2012 model-year vehicles.[21] In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to make up a growing percentage of California's new vehicle sales. By 2025, when the rules are fully implemented, the statewide fleet of new cars and light-duty trucks will emit 75 percent less smog-forming pollution than the statewide fleet in 2012.[22]

[19] United Nations. 2015. *Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well below 2 Degrees Celsius.* December 13. Available: https://unfccc.int/news/finale-cop21. Accessed: April 22, 2021.

[20] California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. November. Pages 1, 3, 5, 20, 25, and 26. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: May 2021.

[21] California Air Resources Board. 2021. *Advanced Clean Cars Program*. Available: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about. Accessed: April 22, 2021.

[22] Ibid.

Executive Order B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, 200 hydrogen fueling stations available, and 250,000 electric-vehicle (EV) charging stations installed by 2025. Furthermore, it specifies that 10,000 of these charging stations must be direct-current fast chargers.

In 2007, CARB adopted the Low-Carbon Fuel Standard to reduce the carbon intensity of California's transportation fuels. The Low-Carbon Fuel Standard applies to fuels used by on-road motor vehicles as well as off-road vehicles, including construction equipment. In addition to regulations to address issues related to tailpipe emissions and transportation fuels, the state legislature has passed regulations to address issues related to the number of miles driven in on-road vehicles.

Since passage of SB 375 in 2008, CARB has required metropolitan planning organizations to adopt plans that show reductions in GHG emissions from passenger cars and light-duty trucks in their respective regions for 2020 and 2035.[23] These plans link land use and housing allocations to transportation planning and related mobile-source emissions. The Metropolitan Transportation Commission (MTC) serves as the metropolitan planning organization for the nine counties in the Bay Area region, including San Mateo County, which is where the Project site is located. In 2014, the MTC adopted Plan Bay Area, the area's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). MTC was asked by CARB to achieve a 10 percent per capita reduction in emissions compared to 2005 levels by 2020 and a 16 percent per capita reduction by 2035. CARB confirmed that the region would achieve the targets by implementing the SCS.[24] In March 2018, CARB approved the proposed update for the SB 375 targets.[25]

Under SB 743, in 2013, the Governor's Office of Planning and Research (OPR) implemented changes to the California Environmental Quality Act (CEQA) Guidelines, including the addition of Section 15064.3, which requires CEQA transportation analyses to move away from a focus on vehicle delay and level of service.[26] In support of these changes, OPR published its *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which recommends that the determination of the transportation impact of a project be based on whether project-related vehicle miles traveled (VMT) per capita (or VMT per employee) would be 15 percent lower than that of existing development in the region.[27] OPR's technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria for determining significance must "promote the reduction in greenhouse gas emissions."[28] This metric is intended to replace the use of vehicle delay and level of service to measure transportation-related

[23] California Air Resources Board. 2018. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*. Approved by the California Air Resources Board on March 22, 2018. Available: https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed: May 2021.

[24] California Air Resources Board. 2018. *Technical Evaluation of the Greenhouse Gas Emissions Reduction Quantification for the Association of Bay Area Governments' and Metropolitan Transportation Commission's SB 375 Sustainable Communities Strategy*. June. Available: https://ww3.arb.ca.gov/cc/sb375/mtc_final_staff_report_0718.pdf. Accessed: May 2021.

[25] California Air Resources Board. 2018. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*. Approved by the California Air Resources Board on March 22, 2018. Available: https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed: May 2021.

[26] Governor's Office of Planning and Research. 2017. *Proposed Updates to the CEQA Guidelines*. November. Available: http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf. Accessed: May 2021.

[27] Governor's Office of Planning and Research. 2017. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. November. Available: http://www.opr.ca.gov/docs/20171127_Transportation_Analysis_TA_Nov_2017.pdf. Accessed: May 2021.

[28] Ibid.

impacts. More detail about SB 743 is provided under *Regulatory Setting* in Section 3.1, *Transportation*. At the time when the environmental impact report (EIR) for the General Plan and M-2 Area Zoning Update (ConnectMenlo) was prepared, the California Natural Resources Agency had not yet adopted OPR's proposed addition of Section 15064.3 to the CEQA Guidelines.

Legislation Associated with Electricity Generation

The state passed legislation that requires increasing use of renewables to produce electricity for consumers. Specifically, California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011), 52 percent by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Code of Regulations (CCR), Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements to reduce energy consumption, resulting in lower GHG emissions. The 2019 California Energy Code, which took effect on January 1, 2020, requires builders to use more energy-efficient building technologies to comply with requirements regarding energy use. CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those that were designed to meet the 2016 California Energy Code, primarily through the transition to high-efficacy lighting.[29]

Clean Energy and Pollution Reduction Act of 2015

SB 350 was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions require the following by 2030: 1) a renewables portfolio standard of 50 percent and 2) a doubling of energy efficiency by 2030, including improvements to the efficiency of existing buildings. These provisions will be implemented by future actions of the California Public Utilities Commission and CEC.

Solid Waste Diversion Regulations

To minimize the amount of solid waste that must be disposed of in landfills, the state legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to state agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. As of July 1, 2012, the resulting mandatory commercial recycling required certain businesses that generate 4 cubic yards or more of commercial solid waste per week to arrange recycling services. To comply with this requirement, businesses could either separate

[29] California Energy Commission. 2018. *2019 Building Energy Efficiency Standards: Frequently Asked Questions.* March. Available: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed: May 2021.

recyclables and self-haul them or subscribe to a recycling service with mixed-waste processing. AB 341 also established a statewide recycling goal of 75 percent; under AB 939, the 50 percent disposal reduction mandate still applied to cities and counties.

Cap-and-Trade Program

CARB administers the state's cap-and-trade program, which covers GHG sources that emit more than 25,000 metric tons of carbon dioxide equivalent per year ($MTCO_2e$/year), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

Short-Lived Climate Pollutant Reduction Strategy

In 2014, SB 605 directed CARB, in coordination with other state agencies and local air districts, to develop a comprehensive SLCP Reduction Strategy. In 2016, SB 1383 directed CARB to approve and implement the SLCP Reduction Strategy to achieve the following reductions in SLCPs:

- 40 percent reduction in CH_4 relative to 2013 levels by 2030,
- 40 percent reduction in HFC gases relative to 2013 levels by 2030, and
- 50 percent reduction in anthropogenic black carbon relative to 2013 levels by 2030.

SB 1383 also establishes the following targets for reducing organic waste in landfills as well as CH_4 emissions from dairy and livestock operations, as follows:

- 50 percent reduction in organic waste disposal relative to 2014 levels by 2020,
- 75 percent reduction in organic waste disposal relative to 2014 levels by 2025, and
- 40 percent reduction in CH_4 emissions from livestock and dairy manure management operations relative to the livestock and dairy sectors' 2013 levels by 2030.

CARB and CalRecycle are currently developing regulations to achieve the organic waste reduction goals under SB 1383. In January 2019 and June 2019, CalRecycle proposed new and amended regulations to CCR Title 14 and Title 27. Among other things, the regulations set forth minimum standards for organic waste collection, hauling, and composting. The final regulations will take effect on or after January 1, 2022.

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the CH_4, HFC, and anthropogenic black carbon reduction targets set by SB 1383. The SLCP Reduction Strategy includes 10 measures to reduce SLCPs, which fit within a wide range of ongoing planning efforts throughout the state, including CARB's and CalRecycle's proposed rulemaking on organic waste diversion (discussed above).

Water Conservation Act of 2009

The overall goal of SB X7-7, the Water Conservation Act of 2009, was to reduce per capita urban water use by 20 percent as of December 31, 2020. The state was required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent by December 31, 2015. This act is an implementing measure of the 2017 Scoping Plan that will continue to be implemented beyond 2020. Reductions in water consumption reduce the amount of energy, as well as the emissions, associated with conveying, treating, and distributing the water; emissions from wastewater treatment are also reduced.

Regional

Metropolitan Transportation Commission

The MTC is the metropolitan planning organization for the nine counties that make up the San Francisco Bay Area and the San Francisco Bay Area Air Basin (SFBAAB), which includes Menlo Park. The first per capita GHG emissions reduction targets for the SFBAAB were 7 percent by 2020 and 15 percent by 2035 relative to 2005 levels. In 2013, MTC adopted an SCS as part of its RTP for the SFBAAB. This was known as Plan Bay Area. The plan goes beyond regional per capita targets and calls for 10 and 16 percent reductions in per capita GHG emissions by 2020 and 2035, respectively.[30] On July 26, 2017, the strategic update to this plan, known as Plan Bay Area 2040, was adopted by the Association of Bay Area Governments and the MTC. As a limited and focused update, Plan Bay Area 2040 builds upon the growth pattern and strategies developed in the original Plan Bay Area but with updated planning assumptions that incorporate the key economic, demographic, and financial trends since 2013.[31] As required by SB 375, CARB updated the per capita GHG emissions reduction targets in 2018. The new targets (i.e., reductions in per capita GHG emissions of 10 percent by 2020 and 19 percent by 2035 relative to 2005 levels) are addressed in the latest update to Plan Bay Area, Plan Bay Area 2050, which was approved by ABAG and the MTC in October 2021. Plan Bay Area 2050 carries forward many of the development and funding strategies of Plan Bay Area 2040.

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for addressing air quality concerns in the San Francisco Bay Area, including San Mateo County. Its role is discussed further in Section 3.2, *Air Quality*. BAAQMD also recommends methods for analyzing project-related GHGs in CEQA analyses as well as multiple GHG reduction measures for land use development projects.

BAAQMD adopted the *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans* (BAAQMD Justification Report) on April 20, 2022.[32] The BAAQMD Justification Report introduces proposed updates to the CEQA GHG thresholds from the 2017 CEQA Guidelines, which were not consistent with the statewide GHG target established by SB 32. These proposed GHG thresholds of significance were updated to consider newer state reduction targets (e.g., SB 32) and eventual carbon neutrality by 2045 (e.g., EO B-55-18) as well as evolving case law. In summary, the updated thresholds emphasize (1) avoiding wasting electricity and developing fossil fuel infrastructure in new buildings that will be in place for decades and thus conflict with carbon neutrality by 2045, (2) compliance with CALGreen Tier 2 electric vehicle requirements and per capita VMT reductions consistent with SB 743, and (3) consistency with a qualified GHG reduction strategy (also known as a Climate Action Plan).

[30] Metropolitan Transportation Commission and Association of Bay Area Governments. 2013. *Plan Bay Area.* Adopted: July 18. Available: http://files.mtc.ca.gov/library/pub/28536.pdf. Accessed: June 1, 2022.

[31] Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040.* Adopted: July 26. Available: http://2040.planbayarea.org/files/2020-02/Final_Plan_Bay_Area_2040.pdf. Accessed: June 1, 2022.

[32] Bay Area Air Quality Management District. 2022. *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans.* April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en. Accessed: May 2022.

Local

Menlo Park Climate Action Plan

The City of Menlo Park's (City's) Climate Action Plan (CAP)[33] identifies local emissions reduction strategies to help meet AB 32 targets. The CAP provides the emissions inventory for 2005 and 2013, the emissions forecast for 2020, a reduction goal for 2020, and a recommendation for GHG reduction strategies. Given the emissions inventory and forecast for 2020, the City adopted a GHG emissions reduction target in June 2013 of 27 percent below 2005 levels by 2020 to align with the goals of AB 32. The CAP recommends various community and municipal strategies for near-term and mid-term implementation. The emissions reduction strategies are generally focused on community actions because more than 99 percent of the emissions are from sources that are not directly controlled by the City.

In October 2015, the City provided an update on the progress of the projects selected in the previous CAP update as well as a list of CAP projects for fiscal years 2015/2016 through 2019/2020. Minor amendments were made to the updated CAP in May 2018 to update the status of the GHG reduction strategies implemented during fiscal years 2015/2017 and revise the proposed GHG reduction strategies for fiscal years 2018–2020 and beyond. Included in the near-term projects (2017–2020) are strategies that consider the following:

- Extending ConnectMenlo EV charging station requirements to other areas of the community;
- Adopting a Community Zero-Waste Plan;
- Considering EV charging station policy options and conducting gap analyses;
- Integrating green design standards, similar to ConnectMenlo, in the Downtown Specific Plan Update;
- Developing a Transportation Master Plan to reduce congestion and GHG emissions;
- Developing a Transportation Management Association to reduce driving-alone behavior and encourage sustainable forms of transportation;
- Developing standard operating procedures for implementing green and sustainable building requirements in the ConnectMenlo area;
- Incorporating GHG reduction and zero-waste strategies in the Parks and Recreation Facilities Master Plan;
- Protecting Menlo Park land in the projected Sea-Level Rise Zone through additional resiliency strategies; and
- Conducting a robust community engagement program for the CAP update to craft Menlo Park's strategy by looking forward to 2040.

[33] City of Menlo Park. 2020. *Climate Change Action Plan*. Available: http://www.menlopark.org/305/Climate-Action-Plan. Accessed: May 2021.

The most recent update to the City's CAP was released in June 2020, the 2030 Climate Acton Plan.[34] The 2030 Climate Acton Plan updated emissions inventories and adopted a climate goal that calls for zero carbon by 2030. The CAP also aims for a 90 percent reduction in CO_2e emissions from 2005 levels by 2030. Table 3.3-2 highlights the City's GHG emissions inventory for 2005, 2017, and 2030.

Table 3.3-2. City of Menlo Park Community Greenhouse Gas Emissions Inventory ($MTCO_2e$)

Emissions Sources	2005	2017	2030
Vehicle Travel (mobile-source)	137,628	158,686	18,373
Natural Gas Combustion	102,295	95,742	13,656
Electricity Consumption	87,617	21,528	—
Solid Waste Generation	21,745	8,424	2,903
Total Greenhouse Gas Emissions (metric tons CO_2e)	**349,285**	**284,380**	**34,933**

Source: City of Menlo Park. 2020. *Climate Change Action Plan*. Available: http://www.menlopark.org/305/Climate-Action-Plan. Accessed: May 2021.
Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalent

CEQA authorizes reliance on a previously approved GHG emissions reduction plan (e.g., a CAP) that was prepared as a "plan for the reduction of greenhouse gas emissions," per Section 15183.5 of the CEQA Guidelines. This section of the CEQA Guidelines establishes opportunities for CEQA tiering when projects are consistent with adopted GHG emissions reduction plans and their impacts can be determined to be less than significant, provided the GHG emissions reduction plans meet specific criteria established under Section 15183.5. However, the City's CAP does not meet the requirements for tiering because it has not been adopted through a public process following environmental review. Consequently, because the City's 2030 CAP does not satisfy the tiering requirements established in Section 15183.5 of the CEQA Guidelines, it cannot be used to determine the significance of an individual project's GHG emissions.

Menlo Park General Plan

The Menlo Park General Plan guides development and the use of land within the city. Several goals and policies from the Open Space and Conservation Element of the Menlo Park General Plan apply broadly to GHG emissions, as presented below.

Goal OSC4: Promote Sustainability and Climate Action Planning.

Policy OSC4.1: Sustainable Approach to Land Use Planning to Reduce Resource Consumption. Encourage, to the extent feasible, (1) a balance and match between jobs and housing, (2) higher-density residential and mixed-use development adjacent to commercial centers and transit corridors, and (3) retail and office areas within walking and biking distance of transit or existing and proposed residential developments.

Policy OSC4.2: Sustainable Building. Promote and/or establish environmentally sustainable building practices or standards in new development that would conserve water and energy, prevent stormwater pollution, reduce landfilled waste, and reduce fossil fuel consumption from transportation and energy activities.

[34] Ibid.

Policy OSC4.3: Renewable Energy. Promote the installation of renewable energy technology, such as in residences and businesses, by supporting education, employing social marketing methods, establishing standards, and/or providing incentives.

Policy OSC4.4: Vehicles Using Alternative Fuel. Explore the potential for installing infrastructure for vehicles that use alternative fuel, such as electric plug-in recharging stations.

Policy OSC4.5: Energy Standards in Residential and Commercial Construction. Encourage projects to achieve a high level of energy conservation, exceeding standards set forth in the California Energy Code for residential and commercial development.

Policy OSC4.6: Waste Reduction Target. Strive to meet the California Integrated Waste Management Board per-person target of waste generation per person per day through source reduction, reuse, and recycling programs.

Policy OSC4.7: Waste Management Collaboration. Continue to support and participate in efforts such as those from the South Bayside Waste Management Authority, which provides waste reduction, recycling, and solid waste programs and solutions.

Policy OSC4.8: Waste Diversion. Develop and implement a zero-waste policy or implement standards, incentives, or other programs that would lead the community toward a zero-waste goal.

Policy OSC4.10: Energy Upgrade California. Consider actively marketing and providing additional incentives for residents and businesses to participate in local, state, and/or federal renewable energy or energy conservation programs.

The following programs, policies, and goals in the approved Menlo Park General Plan Land Use and Circulation Elements, the scope of which includes the M-2 Area, would be applicable to the Proposed Project:

Goal LU-7: Promote the implementation and maintenance of sustainable development, facilities, and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

Policy LU-7.1: Sustainability. Promote sustainable site planning, development, landscaping, and operational practices that conserve resources and minimize waste.

Policy LU-7.5: Reclaimed Water Use. Implement the use of adequately treated "reclaimed" water (i.e., recycled/nonpotable water sources, including graywater, blackwater, rainwater, stormwater, foundation drainage, etc.) through dual plumbing systems for outdoor and indoor uses, as feasible.

Policy LU-7.9: Green Building. Support sustainability and green building best practices through the orientation, design, and placement of buildings and facilities to optimize their energy efficiency in preparation of state zero-net-energy requirements for residential construction in 2020 and commercial construction in 2030.

Program LU-7.A: Green Building Operation and Maintenance. Employ green building as well as operation-and-maintenance best practices, such as increasing energy efficiency, using renewable energy and reclaimed water, and installing drought-tolerant landscaping, for all projects.

Goal CIRC-3: Increase mobility options to reduce traffic congestion, greenhouse gas emissions, and commute travel time.

Policy CIRC-3.1: Vehicle Miles Traveled. Support development and transportation improvements that help reduce per-service-population (or other efficiency metric) vehicle miles traveled.

Policy CIRC-4.1: Global Greenhouse Gas Emissions. Encourage the safer and more widespread use of nearly zero-emission modes, such as walking and biking, and lower-emission modes, such as transit, to reduce greenhouse gas emissions.

Policy CIRC-5.1: Transit Service and Ridership. Promote improved public transit service and increased transit ridership, especially to employment centers, commercial destinations, schools, and public facilities.

Menlo Park Municipal Code

As discussed in Chapter 2, *Project Description*, the Project site is in the Office, Bonus (O-B) zoning district. Consistent with the goals identified in ConnectMenlo, the City passed Ordinance No. 1025 for the Office (O) zoning district under Title 16 of the Menlo Park Municipal Code. Ordinance No. 1025 includes the following requirements that would be applicable to GHG-emitting activities associated with the Proposed Project:

Section 16.43.140, Green and Sustainable Building

In addition to meeting all applicable regulations specified in Title 12 (Buildings and Construction), the following provisions shall apply to projects (implementation may be subject to separate discretionary review and environmental review pursuant to CEQA):

(1) Green Building.

(A) Any new construction, addition, or alteration of a building shall be required to comply with Table 16.43.140(1)(B). (This table summarizes green building requirements for new construction or alternations to nonresidential buildings. The requirements vary, based on the size of the building. Because the proposed building would be more than 100,000 gross square feet, it would be required to meet Leadership in Energy and Environmental Design Gold requirements for Building Design and Construction. These include installing prewiring for EV charging stations at a minimum of 10 percent of the total number of required parking stalls, installing EV charging stations at a minimum of 15 percent of the required parking stalls, enrolling in EPA's Energy Star Portfolio Manager, and submitting documentation of compliance, as required by the City.)

(2) Energy.

(A) For all new construction, a project will meet 100 percent of energy demand (electricity and natural gas) through any combination of the following measures:

(i) Onsite energy generation,

(ii) Purchase of 100 percent renewable electricity through Peninsula Clean Energy or Pacific Gas and Electric Company (PG&E) in an amount equal to the annual energy demand of the project,

(iii) Purchase of local renewable energy generation in Menlo Park in an amount equal to the annual energy demand of the project, and

(iv) Purchase of certified renewable energy credits and/or certified renewable energy offsets annually in an amount equal to the annual energy demand of the project.

If a local amendment to the California Energy Code is approved by the CEC, the following provision becomes mandatory: The project will meet 100 percent of energy demand (electricity and natural gas) through a minimum of 30 percent of the maximum feasible onsite energy generation, as determined by an onsite renewable

energy feasibility study and any combination of the measures in Subsections (2)(A)(ii) to (iv). The onsite renewable energy feasibility study shall demonstrate the following cases at a minimum:

a. Maximum onsite generation potential;

b. Solar feasibility for roof and parking areas, excluding roof-mounted heating, ventilation, and air-conditioning equipment; and

c. Maximum solar generation potential solely on the roof area.

(3) Water Use Efficiency and Recycled Water.

(A) Single-pass cooling systems shall be prohibited in all new buildings.

(B) All new buildings shall be built and maintained without the use of well water.

(C) Applicants for a new building with more than 100,000 square feet of gross floor area shall prepare and submit a proposed water budget and accompanying calculations following the methodology approved by the City. For all new buildings with 250,000 square feet or more in gross floor area, the water budget shall account for the potable water demand reduction resulting from the use of an alternative water source for all City-approved nonpotable applications. The water budget and calculations shall be reviewed and approved by the City's public works director prior to certification of occupancy. Twelve months after the date of the certification of occupancy, the building owner shall submit data and information sufficient to allow the City to compare the actual water use to the allocation in the approved water budget. In the event that actual water consumption exceeds the water budget, a water conservation program, as approved by the City's public works director, shall be implemented. Twelve months after City approval of the water conservation program, the building owner shall submit data and information sufficient to allow the City to determine compliance with the conservation program. If water consumption exceeds the budgeted amount, the City's public works director may prohibit the use of water for irrigation or enforce compliance as an infraction, pursuant to Chapter 1.12, until compliance with the water budget is achieved.

(D) All new buildings shall be dual plumbed for the internal use of recycled water.

(E) All new buildings with 250,000 square feet or more in gross floor area shall use an alternate water source for all City-approved nonpotable applications. An alternative water source may include, but is not limited to, treated nonpotable water such as graywater. An alternate water source assessment shall be submitted that describes the alternative water source and proposed nonpotable application. Approval of the alternate water source assessment, the alternative water source, and its proposed uses shall be approved by the City's public works director and community development director. If the Menlo Park Municipal Water District has not designated a recycled water purveyor and/or municipal recycled water source is not available prior to planning project approval, applicants may propose conservation measures to meet the requirements of this section subject to approval of the City Council. The conservation measures shall achieve a reduction in potable water use equivalent to the projected demand of City-approved nonpotable applications, but in no case shall the reduction be less than 30 percent compared to the water budget in Subsection (3)(C) of this section. The conservation measures may include onsite measures, offsite measures, or a combination thereof.

(F) Potable water shall not be used for dust control on construction projects.

(G) Potable water shall not be used for decorative features, unless the water recirculates.

Because the Proposed Project involves less than 250,000 square feet, it does not have to use an alternate water source.

Reach Code

The 2019 California Building Standards Code and the California Code of Regulation took effect on January 1, 2020. The City of Menlo Park adopted local amendments to the State Building Code that would require electricity as the only fuel source for new buildings (i.e., not natural gas). This ordinance only applies to newly constructed buildings from the ground up, and does not include additions or remodels. Specifically, it would require:

1. New low rise residential buildings (three stories or less) to have electric fuel source for space heating, water heating and clothes dryers. Stoves may still use natural gas if desired. Pre-wiring for electric appliances is required where natural gas appliances are used.
2. New nonresidential and high-rise residential buildings to be all-electric with some exceptions and produce a minimum amount of onsite solar based on square footage.
3. Exceptions include:
    a. Life science buildings may use natural gas for space heating.
    b. Public agency owned and operated emergency operations centers (such as fire stations and police stations) may use natural gas.
    c. Nonresidential kitchens (such as for-profit restaurants and cafeterias) may appeal to use natural gas stoves.
    d. For all exceptions that are granted, natural gas appliance locations must be electrically pre-wired for future electric appliance installation.
4. Solar requirements:
    a. Less than 10,000 square feet requires a minimum of three kilowatt photovoltaic system
    b. Greater than or equal to 10,000 square feet requires a minimum of five kilowatt photovoltaic system

Electric-Vehicle (EV) Charger Requirements

The City of Menlo Park adopted amendments to the California Green Building Standards Code (CALGreen) EV Charging requirements within the California Building Standards Code on October 23, 2018. These amendments are in Sections 12.18.090 through 12.18.110 of the Menlo Park Municipal Code.

The EV requirements are intended to:

- Increase the availability of EV charging infrastructure within the city;
- To provide for residents and employees with electric vehicles; and
- Lower barriers for those looking to shift from fossil fuel vehicles.

New multi-family residential developments and nonresidential developments 10,000 square feet and above are required to comply with the local amendments to the CALGreen code and install EV chargers and prepare for future installation.

Environmental Impacts

Methods of Analysis

The level of GHG emissions associated with construction of the Proposed Project was assessed and quantified using a Microsoft Excel spreadsheet with the emissions sources and factors found in the California Emissions Estimator Model (CalEEMod), version 2020.4.0. The GHG emissions associated with operation of the Proposed Project were assessed and quantified using a Microsoft Excel spreadsheet with the emissions sources found in CalEEMod, version 2020.4.0, and the vehicle emissions factors from CARB's 2021 EMission FACtor (EMFAC) model, consistent with BAAQMD guidance. A summary of the methodology is provided below. A full list of assumptions regarding modeling input parameters is provided in Appendix 3.2-1.

Zoning Ordinance Consistency

To ensure consistency with Menlo Park Municipal Code requirements for the Office (O) zoning district, the Menlo Park General Plan, Plan Bay Area 2040, and the 2017 Scoping Plan, the Proposed Project would incorporate the following required zoning ordinances that would help reduce GHG emissions. The zoning ordinances concern the Menlo Park Municipal Code requirement set forth in Section 16.43.140 (2)(A) that calls for 100 percent of the energy demand (electrical) of the Proposed Project to be met through any combination of onsite energy generation (minimum of 30 percent through onsite generation), purchase of renewable electricity, purchase and installation of local renewable energy generation within Menlo Park in an amount equal to the annual energy demand of the Project, or purchase of certified renewable energy credits or offsets. The Proposed Project would achieve this zoning ordinance requirement by producing on-site energy generation and purchasing all of its remaining energy demand through a renewable energy provider (100 percent renewable). In addition, the Proposed Project is required to be designed to meet Leadership in Energy and Environmental Design (LEED) Gold, install EV parking spaces and EV-ready parking spaces, enroll in EPA Energy Star Building Portfolio Manager, and submit documentation of compliance with the City, all of which would help reduce the level of GHG emissions associated with operation of the Proposed Project.

Menlo Park Municipal Code Chapter 16, Section 16.43.140(2)(A), Green and Sustainable Building, Energy. For all new construction, the Project Sponsor, or its building manager, will meet 100 percent of energy demand (electricity) through any combination of the following measures:

(i) Onsite energy generation;

(ii) Purchase of 100 percent renewable electricity through Peninsula Clean Energy or Pacific Gas and Electric Company in an amount equal to the annual energy demand of the Project;

(iii) Purchase and installation of local renewable energy generation within the city of Menlo Park in an amount equal to the annual energy demand of the Project; and/or

(iv) Purchase of certified renewable energy credits and/or certified renewable energy offsets annually in an amount equal to the annual energy demand of the Project.

If a local amendment to the California Energy Code is approved by the California Energy Commission (CEC), the following provision becomes mandatory:

The Project will meet 100 percent of energy demand (electricity) through a minimum of 30 percent of the maximum feasible onsite energy generation, as determined by an Onsite Renewable Energy Feasibility Study and any combination of measures ii to iv, above. The Onsite Renewable Energy Feasibility Study shall demonstrate the following cases at a minimum:

1. Maximum onsite generation potential.
2. Solar feasibility for roof and parking areas (excluding roof-mounted HVAC equipment).
3. Maximum solar generation potential solely on the roof area.

Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, Electric-Vehicle Charging. The Project Sponsor shall ensure that at least 15 percent of the parking stalls for passenger vehicles shall meet California Green Building Standards Code (CALGreen) Tier 2 standards for EVs and that 10 percent shall be designated electric-vehicle supply equipment (EVSE), as defined in California Building Energy Efficiency Standards Title 24, Part 11. Making parking stalls EV ready requires the installation of dedicated branch circuits, circuit breakers, and other electrical components, including receptacles or blank covers, to support future installation of one or more charging stations. This is consistent with Policy OSC4.4 of the Menlo Park General Plan as well as Menlo Park Municipal Code Chapter 16, Section 16.72.010, which calls for the installation of infrastructure, such as electric plug-in recharging stations, for vehicles that use alternative fuel.

Construction-Related Emissions

Construction of the Proposed Project is estimated to begin October 2022 and have a total duration of approximately 39 months. The parking structure would be constructed first, followed by the office building[35] and Jefferson Park. Construction of the Proposed Project would emit GHG emissions, such as CO_2, CH_4, and N_2O. GHG emissions would result from off-road equipment exhaust as well as employee vehicle and haul truck exhaust. These emissions were estimated using a combination of emission factors and methodologies from CalEEMod and CARB's EMFAC2021. The estimates relied on a combination of CalEEMod default data values as well as Project-specific information provided by the Project Sponsor. Detailed descriptions of model input and output parameters and assumptions are provided in Appendix 3.2-1.

Operational Emissions

GHG emissions emitted by motor vehicles traveling to and from the Project site were estimated with use of the vehicle emission factors from CARB's EMFAC2021;[36] traffic data, including daily VMT and the number of daily trips, from a transportation analysis conducted by Kittelson & Associates;[37] and CalEEMod. The traffic data, along with the EMFAC2021 vehicle emission factors, were entered into the mobile-source module of CalEEMod to determine the mass of GHG emitted by Project-related vehicle trips.

GHG emissions associated with landscape maintenance and backup diesel generator operation were estimated using the applicable modules in CalEEMod. GHG emissions associated with the consumption of water as well as the generation of wastewater and solid waste were estimated using the applicable modules in CalEEMod and the volume estimates prepared by the Project Sponsor. These consumption estimates are provided in Appendix 3.2-1. The Proposed Project would not include any natural gas infrastructure. GHG emissions associated with the onsite consumption of electricity would be zero with implementation of the zoning code requirements. The Proposed Project would be operational starting in 2025. All GHG calculations and modeling data, including data entered into CalEEMod and associated output files, are provided in Appendix 3.2-1.

[35] The proposed office building would have a gross floor area of 249,500 square feet.

[36] California Air Resources Board. 2021. *California EMissions FACtor Model*. Available: https://arb.ca.gov/emfac/. Accessed: May 2021.

[37] Kittelson & Associates. 2022. *Commonwealth Building 3 Transportation Impact Analysis*.

Thresholds of Significance

CEQA Guidelines Section 15064 and relevant portions of Appendix G of the CEQA Guidelines recommend that a lead agency consider a project's consistency with relevant adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. In Appendix G of the CEQA Guidelines, two questions are provided to help assess whether a project would result in a potentially significant impact related to climate change. These questions ask whether a project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

CEQA Guidelines Section 15064.4(b) also states that, when assessing the significance of impacts from GHG emissions, a lead agency should consider 1) the extent to which a project may increase or reduce GHG emissions compared with existing conditions, 2) whether a project's GHG emissions would exceed a threshold of significance that the lead agency has determined to be applicable to the project, and 3) the extent to which a project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Construction-generated Emissions of Greenhouse Gases

The BAAQMD's CEQA Guidelines, or Justification Report, do not identify a GHG emissions threshold for construction-related emissions. Instead, the BAAQMD CEQA Guidelines recommend that GHG emissions from construction be quantified and disclosed and a determination regarding the significance of the GHG emissions be made with respect to whether a project would be consistent with emission reduction goals. BAAQMD further recommends incorporation of best management practices (BMPs) to reduce GHG emissions during construction, as feasible and applicable. This approach is used to evaluate construction-generated emissions.

Operational Emissions of Greenhouse Gases

According to the BAAQMD Justification Report, the BAAQMD recommends that land use projects use the approach endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) (62 Cal.4th 204), which specifies that a project evaluate its effect on California's efforts to meet the state's long-term climate goals. As the California Supreme Court held in that case, a project that would be consistent with meeting the state's long-term climate goals can be found to have a less-than-significant impact on climate change under CEQA. Specifically, if a project would contribute its "fair share"[38] of what will be required to achieve those long-term climate goals, then a reviewing agency can find that the impact will not be significant because the project will help to solve the problem of global climate change (62 Cal.4th 220–223).[39] Applying this approach, BAAQMD has found that a new land use development project being built today needs to incorporate the following design elements to do its "fair share" toward meeting the SB 32 2030 target and the goal of carbon neutrality by 2045, as shown in Table 3.3-3.

[38] The BAAQMD defines "fair share" as design elements that need to be incorporated into a project to lay the foundation for achieving carbon neutrality by 2045. These are elements that the project has influence or control over. For example, becoming carbon neutral by 2045 will require California's electrical power generators to shift to 100 percent carbon-free energy resources, which is not something that would be controlled through the design of new land use projects and would not be a part of a project's fair share. Other sources that would not be part of the "fair share" is the vehicle fleet mix or indirect offsite emissions (e.g., methane emissions from wastewater or solid waste).

[39] Bay Area Air Quality Management District. 2022. *Draft Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans.* February. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/~/media/ffb719cfa04a438d9c7be10007a5abdf.ashx. Accessed: March 25, 2022.

Table 3.3-3. BAAQMD GHG Thresholds for Land Use Projects

Thresholds for Land Use Projects (Must Include A or B)
A. Projects must include, at a minimum, the following project design elements:
1. Buildings
a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
b. The project will not result in any wasteful, inefficient, or unnecessary electrical usage, as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the CEQA Guidelines.
2. Transportation
a. Achieve compliance with electric-vehicle requirements in the most recently adopted version of CALGreen Tier 2.
b. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
i. Residential projects: 15 percent below the existing VMT per capita
ii. Office projects: 15 percent below the existing VMT per employee
iii. Retail projects: no net increase in existing VMT
B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b).

Source: Bay Area Air Quality Management District. 2022. *Draft Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*. February. Available: https://www.baaqmd.gov/plans-and-climate/ california-environmental-quality-act-ceqa/~/media/ffb719cfa04a438d9c7be10007a5abdf.ashx. Accessed: March 2022.

If a project is designed and built to incorporate the design elements listed in Table 3.3-3 (Threshold Option A) or is consistent with a local GHG reduction strategy under Section 15183.5 of the CEQA Guidelines (Threshold Option B), then it will contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and will not make a cumulatively considerable contribution to global climate change. If the project does not incorporate these design elements and is not consistent with a local GHG reduction strategy, then it should be found to make a significant climate impact because it will hinder the state's efforts to address climate change.

As discussed above, the City's 2030 CAP does not meet the criteria under CEQA Guidelines Section 15183.5(b), and Threshold Option B cannot be used. Thus, this analysis evaluates the Proposed Project's consistency with the design elements outlined in Threshold Option A, shown in Table 3.3-3. Furthermore, although the City's 2030 CAP and reach code are not applicable for determining the significance of GHG impacts, a consistency analysis with the CAP and reach code are shown below for informational purposes.

Stationary Source Emissions of Greenhouse Gases

The BAAQMD CEQA Guidelines recommends a threshold of 10,000 $MTCO_2e$ per year for stationary sources. According to BAAQMD, it is projected that a threshold level of 10,000 $MTCO_2e$ per year would capture approximately 95 percent of all GHG emissions from new permit applications from stationary sources in the SFBAAB. The BAAQMD Justification Report does not include an updated stationary-source threshold; thus, the 10,000 MTCO2e per year threshold from the BAAQMD CEQA Guidelines is used to evaluate emissions from stationary sources.

Summary of Analysis in the ConnectMenlo Final EIR

The City adopted the ConnectMenlo Final EIR in 2016. The EIR included an emissions inventory for ConnectMenlo scenarios in 2020 and 2040. Emissions were estimated for 2020 to evaluate consistency with AB 32, which established a statewide target for 2020. Emissions were also estimated for 2040, which is the planning horizon year for ConnectMenlo. The ConnectMenlo Final EIR found that GHG emissions would increase substantially compared with existing conditions (pre-2020 target) by the horizon year (2040) and would not achieve the 2040 efficiency target (per service population), which is based on a trajectory that leads to the 2050 goal of 80 percent below 1990 levels. The policies identified in the Menlo Park General Plan, as well as the Transportation Demand Management (TDM) program and other green building sustainability measures in the Menlo Park Zoning Ordinance, would reduce GHG emissions to the extent feasible. However, additional state and federal actions will be necessary to ensure that regulated state and federally sources (i.e., sources outside the City's jurisdictional) take steps to ensure the deep reductions needed to achieve the 2050 target. Therefore, the ConnectMenlo Final EIR considered GHG emissions to be significant and unavoidable.

The ConnectMenlo Final EIR also evaluated ConnectMenlo's consistency with the state's GHG emissions reductions objectives, which are embodied in AB 32, Executive Order B-30-15, Executive Order S-03-05, and SB 375. The ConnectMenlo Final EIR determined that the applicable plans adopted for the purpose of reducing GHG emissions include the 2017 Scoping Plan, Plan Bay Area, and the City's 2030 CAP, although, as discussed in the Regulatory Setting, the City's 2030 CAP is not considered a qualified GHG reduction plan pursuant to CEQA Guidelines Section 15183.5. The ConnectMenlo Final EIR found that ConnectMenlo would be consistent with the regional objectives of Plan Bay Area and the City's CAP, but it could not be shown to be consistent with CARB's most recent scoping plan for reducing statewide GHG emissions and/or the statewide GHG reduction target established by SB 32, which was signed in September 2016. However, the ConnectMenlo Final EIR pointed out that CARB had not yet drafted a plan to achieve the statewide GHG emissions targets stated in Executive Order S-03-05; therefore, although ConnectMenlo supports progress toward the long term-goals identified in Executive Order B-30-15 and Executive Order S-03-05, it cannot yet be demonstrated that Menlo Park would achieve GHG emissions reductions that would be consistent with a 40 percent reduction below 1990 levels by 2030 or be on the path to achieving further GHG reductions beyond 2030. Therefore, the ConnectMenlo Final EIR determined that the level of GHG emissions associated with implementation of ConnectMenlo would be significant and unavoidable.

Project Impacts and Mitigation Measures

Impact GHG-1: Generation of GHG Emissions during Construction. Construction of the Proposed Project would generate GHG emissions but would not have a significant impact on the environment. (LTS)

Project-related construction activities, including parking lot demolition, building construction (i.e., parking structure, office building, Jefferson Park), and offsite improvements, would generate GHG emissions. Specifically, heavy-duty off-road equipment operation, material transport, and workers' commutes during construction of the Proposed Project would result in GHG emissions from exhaust. Based on modeling conducted with CalEEMod, it is estimated that Project-related construction would generate approximately 4,580 $MTCO_2e$ over the construction period (2022–2025) (see Appendix 3.2-1 for detailed input parameters and modeling results).[40]

[40] Construction was conservatively assumed to begin in 2022. This is a conservative assumption from a GHG standpoint because fleet turnover, as it pertains to construction equipment, results in older, more polluting equipment being gradually replaced by cleaner, more efficient equipment.

Demolition and construction activities for the Proposed Project would result in the temporary generation of GHG emissions. Emissions would originate from the exhaust of both mobile and stationary construction equipment as well as exhaust from employees' vehicles and haul trucks. Construction-related GHG emissions from each specific source would vary substantially, depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

Construction of the Proposed Project would include parking lot demolition, onsite and offsite improvements, and building construction. These activities would require mobile and stationary construction equipment as well as on-road vehicles such as haul trucks for demolition debris removal and vendors' trucks for deliveries. Site grading and excavation would be required for building foundations, utility infrastructure installation, and landscaping.

As described above, BAAQMD has not established a quantitative threshold for assessing construction-related GHG emissions. Rather, BAAQMD recommends evaluating whether construction activities would conflict with statewide emission reduction goals in AB 32. AB 32 has been superseded by SB 32, whose targets will be met through implementing the programs in the Scoping Plan. The Scoping Plan does not contain any programs required to meet SB 32's targets that would be directly applicable to construction of the Proposed Project. As discussed in Table 3.6-7, below, the Proposed Project, including construction, would be consistent with the 2017 Scoping Plan's measures to reduce landfill waste through compliance with applicable waste diversion regulations, and the fuel used in construction equipment would comply with statewide low-carbon fuel standards. Therefore, construction GHG emissions would not interfere with attainment of the GHG reduction targets in SB 32, and impacts would be less than significant without mitigation.

Even though no applicable regulatory authority (BAAQMD or the City) has an adopted thresholds for construction GHG emissions, BAAQMD encourages the lead agency to incorporate BMPs to reduce GHG emissions during construction, as applicable. BAAQMD provides some examples of measures to reduce construction GHG emissions but does not have a list of the BMPs necessary to meet a construction GHG threshold because BAAQMD does not provide such a threshold. Specifically, BAAQMD states that BMPs may include using alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet, using local building materials for at least 10 percent of a project, and recycling or reusing at least 50 percent of construction waste or demolition materials. CARB's 2017 Scoping Plan, Appendix B, also includes examples of potentially feasible measures that could be considered by local agencies to reduce GHG emissions during construction. As stated in Appendix B to the 2017 Scoping Plan, however, "[t]his appendix should be viewed as a general reference document. It should not be interpreted as official guidance or as dictating requirements for a city or county in addressing greenhouse gases (GHGs) in its general plan or for local project CEQA mitigation."

Pursuant to ConnectMenlo Mitigation Measure AQ-2b1, and as recommended by the Scoping Plan, the Proposed Project must minimize idling times during construction by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure). Clear signage must be provided for construction workers at all access points. In addition, consistent with BAAQMD's suggestion and Menlo Park Municipal Code requirements, the Proposed Project would divert (i.e., salvage, recycle, or compost rather than send to a landfill) at least 65 percent of both inert and non-inert nonhazardous demolition and construction waste, as required by Menlo Park Municipal Code Chapter 12, Sections 12.18 and 12.48.

To further reduce construction GHG emissions, the Project Sponsor would comply with feasible and practical construction-related measures suggested in Appendix B to the 2017 Scoping Plan and BMPs identified by BAAQMD. The following Scoping Plan Appendix B measures and BAAQMD-recommended

BMPs may be incorporated into the Proposed Project, subject to review of feasibility and practicality, based on the specifics of the Proposed Project, including, but not limited to, the architectural design, availability of technological advances in equipment, and general availability of construction equipment and/or materials. The following list of measures is not an exhaustive list; the City and the Project Sponsor would review the comprehensive list of potential measures in Appendix B of the Scoping Plan and the BAAQMD-recommended BMPs and determine which measures would be feasible and practical, based on analysis from the Project Sponsor's team. Documentation of feasible and practical measures would be required as Project conditions for the building permit through the conditional development permit:

- Instead of using fossil fuel–based generators for temporary jobsite power, use grid-sourced electricity from PG&E or Peninsula Clean Energy, or solar power, to power tools (e.g., drills, saws, welders) as well as any temporary offices used by construction contractors. This measure shall be required during all construction phases, except demolition, site grubbing, site grading, and the installation of electric, water, and wastewater infrastructure. This measure shall be implemented during the framing and erection of new buildings, all interior work, and the application of architectural coatings. Electrical outlets shall be designed according to PG&E's Greenbook standards and placed in accessible locations throughout the construction site. The Project Sponsor, or its primary construction contractor, shall coordinate with a utility to activate a temporary service account prior to proceeding with construction, rely on the property's existing power, or show proof that only solar-powered generators will be used. Implementation of this measure shall be required in the contract the Project Sponsor establishes with its construction contractors.
- Require diesel equipment fleets to be lower emitting than any current emission standard (statewide average equipment fleet tier) to the extent feasible and practical, as determined by the City, based on an analysis by the Project Sponsor.[41]
- Enforce idling time restrictions for construction vehicles.[42]
- Minimize tree removal and mitigate indirect GHG emissions increases that occur because of vegetation removal, loss of sequestration, and soil disturbance to the extent feasible and practical, as determined by the City, based on an analysis by the Project Sponsor.[43]
- Use alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet to the extent feasible and practical, as determined by the City, based on a feasibility analysis by the Project Sponsor.
- Use local building materials for at least 10 percent of all building materials used to the extent feasible and practical, as determined by the City, based on a feasibility analysis by the Project Sponsor; and
- Recycle or reuse at least 50 percent of construction waste or demolition materials.

[41] Compliance with MM AQ-1.1 would satisfy this condition of approval.

[42] Compliance with ConnectMenlo MM AQ-2b1 would satisfy this condition of approval.

[43] For any tree removals, the Proposed Project would comply with the City's tree replacement requirements.

Impact GHG-2: Generation of GHG Emissions during Operation and Conflicts with Applicable Plans and Policies. The level of GHG emissions associated with operation of the Proposed Project would not have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. (LTS/M)

As noted above, the BAAQMD recommends qualitative approach options for analyzing project consistency with the state's long-term GHG reductions goals, which are the incorporation of certain design elements and consistency with a local GHG reduction plan. Because the City's CAP is not a qualified GHG reduction plan, this analysis evaluates the Proposed Project's design elements and consistency with the BAAQMD Threshold Option A from Table 3.3-3.

Operational GHG Emissions

Operation of Proposed Project would result in mobile-source GHG emissions associated with vehicle trips to and from the Project site (i.e., Project-generated VMT), landscape maintenance, periodic testing and operation of backup diesel generators, offsite electricity consumption associated with supplying water as well as conveying and treating wastewater, and the generation of solid waste. GHG emissions associated with onsite consumption of electricity would be zero with implementation of Menlo Park Municipal Code Chapter 16, Section 16.43.140(2)(A). Although operational emissions from the Proposed Project are not used directly to evaluate GHG impacts, annual emissions associated with Project operation are summarized in Table 3.3-4 to provide a fully comprehensive assessment of the Proposed Project. The results shown in Table 3.3-4 represent the first year of Project operations (2025), which is the highest quantity of annual emissions expected. The largest source of emissions, vehicles, will progressively become lower-emitting in future years from fleet turnover and increasingly stringent regulations. All detailed calculations are provided in Appendix 3.2-1.

Table 3.3-4. Operational Greenhouse Emissions by Sector for 2025 ($MTCO_2e$)

Emissions Source[c]	Annual $MTCO_2e$
Landscape Maintenance (area source)	< 1
Electricity Consumption (onsite)[b]	0
Vehicle Emissions (mobile sources)	2,378
Solid Waste Disposal[a]	113
Water Consumption and Wastewater Treatment	4
Total Operational Emissions (*$MTCO_2e$/year*)	2,506 [d]

Source: See Appendix 3.2-1 for detailed input parameters and modeling results.

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent

a. The level of GHG emissions associated with solid waste disposal accounts for the waste diversion requirements mandated by state regulations (e.g., AB 341).

b. The level of GHG emissions associated with onsite consumption of electricity would be zero because of implementation of CCM-GHG-1, which requires the Project Sponsor, or its building manager, to purchase 100 percent renewable electricity through Peninsula Clean Energy or PG&E in an amount equal to its entire onsite demand for electricity.

c. The Proposed Project would not include or construct any natural gas infrastructure.

d. Values may not add up because of rounding.

As shown in Table 3.3-4, operation of the Proposed Project would generate approximately 2,477 $MTCO_2e$ during its first year of operation, which is projected to be in 2025. Most of the Proposed Project's operational emissions would be associated with vehicle trips to and from the Project site (2,378 $MTCO_2e$). As discussed above, the BAAQMD does not have a quantitative GHG threshold for land use projects for analyzing a project's consistency with the state's long-term GHG reduction goals.

BAAQMD recommends calculating GHG emissions from permitted stationary sources separately from a project's operational emissions[44] The Proposed Project's emergency generator (i.e., a stationary source) is estimated to emit approximately 1 $MTCO_2e$/year, which is below the 10,000 $MTCO_2e$/year BAAQMD threshold. Thus, operation of the emergency generator would result in a less-than-significant impact.

Consistent with the adopted BAAQMD GHG thresholds for land use projects, the Proposed Project's consistency with the design elements specified in Threshold Option A is discussed below.

Statewide Greenhouse Gas Reduction Targets and Plans

AB 32 and SB 32 outline the state's GHG emissions reduction targets for 2020 and 2030, respectively. Although not legislatively adopted, Executive Order S-03-05 establishes a long-term statewide goal to reduce GHG emissions to 80 percent below 1990 levels by 2050. Executive Order B-55-18 sets a more ambitious state goal of net zero GHG emissions by 2045 while acknowledging the important role of carbon sequestration to meet this target.

Consistency with the BAAQMD Land Use GHG Thresholds

As discussed above, the newly adopted BAAQMD land use GHG thresholds are established to ensure that projects meet their "fair share" to help the state meet its long-term climate goals (SB 32 and EO B-55-18). BAAQMD has identified design elements and metrics that, if achieved by a project, represent a "fair share" toward contributing to long-term state goals. These design elements and metrics include not incorporating natural gas infrastructure in project designs, not wasting electricity, promoting electric vehicle use and charging consistent with CALGreen Tier 2 requirements, and, lastly, reducing VMT in accordance with the state's 2017 Scoping Plan. The Proposed Project's consistency with these requirements is discussed in Table 3.3-5.

As demonstrated in Table 3.3-5, the Proposed Project, with incorporation of Mitigation Measure GHG-1.1 and Mitigation Measure TRA-1.1, would be consistent with the requirements and, thus, would do its "fair share" in helping the state achieve its SB 32 2030 goal and carbon neutrality goal by 2045. Therefore, the Proposed Project, with incorporation of Mitigation Measure GHG-1.1 and Mitigation Measure TRA-1.1, would not generate a significant amount of GHG emissions during operations or conflict with the state's plan for reducing GHG emissions.

Consistency with the City of Menlo Park Climate Action Plan

The most recent update to the City's CAP, the 2030 CAP, was adopted in April 2021.[45] The 2030 CAP updated emissions inventories and adopted a climate goal that calls for zero carbon by 2030. The CAP also aims for a 90 percent reduction in CO_2e emissions from 2005 levels by 2030. To achieve GHG reductions, the CAP promotes six different goals. Table 3.3-6 discusses the Project's consistency with the six 2030 CAP goals. As discussed in Table 3.3-6, the Proposed Project would be consistent with the goals of the 2030 CAP.

[44] For example, if a proposed project anticipates having a permitted stationary source onsite, such as a back-up generator, the GHG emissions from the generator should not be added to the project's total emissions.

[45] City of Menlo Park. 2020. *Climate Change Action Plan*. Available: http://www.menlopark.org/305/Climate-Action-Plan. Accessed: February 2022.

Table 3.3-5. Project Consistency with the BAAQMD GHG Land Use Thresholds

Sector	BAAQMD Threshold	Project Consistency
Buildings	a) The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development)	**Consistent.** The Proposed Project will not include any natural gas infrastructure in its project design. Furthermore, all electrical demand will comply with the Menlo Park Municipal Code, which requires onsite renewable energy generation and the purchase of 100 percent renewable energy. As such, the Proposed Project will be consistent with this BAAQMD requirement.
	b) The project will not result in any wasteful, inefficient, or unnecessary electrical usage, as determined by the analysis required under CEQA Section 21100(b)(2) and Section 15126.2(b) of the CEQA Guidelines.	**Consistent.** The Proposed Project would be built to meet the LEED Gold certification. As part of the Project design, the Proposed Project would have a photovoltaic solar system that would be anticipated to generate approximately 146,000 to 194,7000 kilowatt hours per year (kWh/year). Furthermore**,** the new proposed building and parking structure would be built under the California 2019 or 2022 CALGreen and Building Energy Efficiency Code. The Building Energy EfficiencyCALGreen Code will result in 30 percent less energy use than commercial buildings that were designed to meet the 2016 CALGreen Code. This reduction will be achieved primarily through the transition to high-efficacy lighting. Lastly, as determined in the Initial Study (Appendix 1-1), the Proposed Project was found not to result in wasteful, inefficient, or unnecessary consumption of energy resources. As such, the Proposed Project would be consistent with this BAAQMD requirement.

Sector	BAAQMD Threshold	Project Consistency
Transportation	a) Achieve compliance with electric-vehicle requirements in the most recently adopted version of CALGreen Tier 2.	**Consistent with Mitigation.** The Proposed Project would be subject to Menlo Park Municipal Code Chapter 12, Sections 12.18.080 through 12.18.110, which amend California Green Building Code Section 5.106.5.3, Electric-Vehicle Charging. This reach code of the Menlo Park Municipal Code (i.e., the amended section of the California Green Building Code) requires 15 percent of all parking spaces to be EV-ready spaces and 10 percent to be designated EVSE spaces in new construction greater than 9,999 square feet. The number of EVSE spaces can count toward the number of EV-ready spaces; therefore, the maximum required number of any type of EV space would be 15 percent of the total number of spaces (10 percent designated EVSE spaces, 5 percent EV-ready spaces). Although this City ordinance exceeds CALGreen mandatory requirements for EV spaces (10 percent), it does not meet the CalGreen Tier 2 nonresidential voluntary requirement (20 percent EV spaces). The maximum number of EV parking spaces would be 15 percent of the total number of spaces. Thus, the Proposed Project would implement Mitigation Measure GHG-1.1, which requires the number of EV spaces the Project Sponsor includes in the Project design to be consistent with the Tier 2 nonresidential voluntary measures from CALGreen for EV spaces. Mitigation Measure GHG-1.1 would ensure that the Proposed Project would meet the land use thresholds adopted by BAAQMD for EVs. As such, the Proposed Project, with incorporation of Mitigation Measure GHG-1.1, would be consistent with this BAAQMD requirement.

Sector	BAAQMD Threshold	Project Consistency
	A) achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA: i. Residential projects: 15 percent below the existing VMT per capita. ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT	**Consistent with Mitigation.** The Proposed Project is a nonresidential project. It would develop a new office building, parking structure, and public park near existing residential and commercial uses, thereby reducing the demand for travel by single-occupancy vehicles. In addition, the Project area is served by public transit. Furthermore, the Proposed Project would implement a TDM program with measures that would reduce vehicle traffic in and around the Project site. The Proposed Project's bicycle and pedestrian facilities would also help reduce the demand for travel by single-occupancy vehicles. In total, with the Project design, TDM program, and Mitigation Measure TRA-1.1, the Project would achieve a per employee VMT reduction of approximately 26.6 percent and would have a per employee VMT of 12.3, which is below the City's threshold of 12.6. This reduction is also greater than the required 15 percent below the existing VMT per employee. Thus, the Proposed Project would be consistent with this BAAQMD requirement.

Source: Bay Area Air Quality Management District. 2022. *Draft Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts*. February. Available: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/~/media/ffb719cfa04a438d9c7be10007a5abdf.ashx. Accessed: March 2022.

Table 3.3-6. City of Menlo Park Community Greenhouse Gas Emissions Inventory

2030 Climate Action Plan Goals	Project Consistency
1. Explore policy/program options to convert 95 percent of existing buildings to all-electric buildings by 2030.	**Consistent.** The Proposed Project would be consistent with Menlo Park Municipal Code Chapter 16, Section 16.43.140(2)(A), which requires the Project Sponsor to purchase 100 percent of all electricity from a renewable source.
2. Set citywide goals for increasing electric-vehicle sales to 100 percent of new vehicle sales by 2025 and decreasing gasoline sales 10 percent a year from a 2018 baseline.	**Consistent.** The Proposed Project would follow Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, which requires 15 percent of all parking spaces to be EV spaces and 10 percent to be designated EVSE.
3. Expand access to electric-vehicle charging for multi-family and commercial properties.	**Consistent**. As discussed in Goal 2, 15 percent of the Proposed Project's parking spots would be EV spaces, with 10 percent designated EVSE.
4. Reduce vehicle miles traveled by 25 percent or an amount recommended by the Complete Streets Commission	**Consistent.** As discussed in more in Section 3.1, *Transportation*, the Proposed Project would incorporate TDM measures and Mitigation Measure TRA-1.1 to reduce the number of trips and VMT. The TDM measures would reduce VMT by 26.6 percent.
5. Eliminate the use of fossil fuels from municipal operations.	**Consistent/Not Applicable.** The Proposed Project has no control over municipal operations and therefore would not conflict with this measure.
6. Develop a climate adaption plan to protect the community from sea-level rise and flooding.	**Consistent/Not Applicable.** The Proposed Project would not conflict with the City's goal to develop a climate adaption plan.

Source: City of Menlo Park. 2020. *Climate Change Action Plan*. Available: http://www.menlopark.org/305/Climate-Action-Plan. Accessed: February 2022.

Consistency with the City of Menlo Park General Plan and Reach Codes

As discussed above, the Proposed Project would be consistent with the ConnectMenlo EIR and reach codes. Specifically, for GHG emissions, the Proposed Project would follow Menlo Park Municipal Code Chapter 16, Section 16.43.140(2)(A)(ii), which requires the purchase of 100 percent renewable electricity through Peninsula Clean Energy or PG&E in an amount equal to annual onsite demand for electricity. In addition, the Proposed Project would follow Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, which requires 15 percent of the parking spaces to be EV spaces and 10 percent to be designated EVSE. Therefore, the Proposed Project would be consistent with City General Plan goals and reach codes.

Consistency with the Scoping Plan and Other Applicable Statewide Measures

As explained in the Regulatory Setting, above, CARB's 2017 Scoping Plan outlines the main strategies for California to achieve the legislated GHG emissions target for 2030 and "substantially advance toward our 2050 climate goals."[46] It identifies the reductions needed by each GHG emissions sector (e.g., industry, transportation, electricity generation). There are multiple ways to demonstrate that operation of the Proposed Project would be qualitatively consistent with CARB's 2017 Scoping Plan. For example,

[46] California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target.* November. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: March 17, 2022.

Menlo Park Municipal Code Chapter 16, Section 16.43.140(2)(A), would require the Proposed Project to use 100 percent renewable electricity or offset energy use from electricity from non-renewable sources, which the Proposed Project would do through its purchase of renewable electricity for its electricity needs. This requirement is consistent with the 2017 Scoping Plan's call for the state to transition from fossil fuels to electricity from carbon-free sources. Furthermore, per the City's reach code, natural gas use is limited to certain uses. The Proposed Project would not use natural gas.

These zoning ordinance and reach code requirements recognize that the 2017 Scoping Plan calls for the state to be less reliant on natural gas (e.g., by designing buildings that are all electric or requiring all GHG emissions generated from onsite consumption of natural gas to be fully offset). In addition, the Proposed Project would implement Mitigation Measure GHG-1.1, ensuring that a minimum of 22 percent of the parking spaces would be for clean air vehicles or EVs, with at least 20 percent designated as EVSE ready, thereby supporting the projected future vehicle fleet. The 2017 Scoping Plan outlines the importance of converting the state's vehicle fleet to EVs and other types of zero-emission technologies as well as building the infrastructure needed to support these vehicles. Furthermore, a consistency analysis that considers the primary objectives found in the 2017 Scoping Plan is provided in Table 3.6-7. As demonstrated in Table 3.6-7, the Proposed Project would be consistent with the objectives.

Table 3.6-7. Project Consistency with Policies from the 2017 Scoping Plan (Appendix B) and Other Applicable Statewide Measures

Policy	Primary Objective	Project Consistency Analysis
SB 350 (superseded by SB 100)	Reduce GHG emissions in the electricity sector by implementing the 50 percent RPS, doubling energy savings, and taking other actions as appropriate to achieve the planning targets regarding GHG emissions reductions in the Integrated Resource Plan process.	**Consistent**. This is a state program that requires no action at the local or project level. Benefits Project-related electricity and water consumption. The Proposed Project would implement Menlo Park Municipal Code Chapter 16, Section 16.43.140(2)(A), which requires 100 percent renewable energy and/or offsets of energy use from non-carbon-free sources of energy and therefore helps reduce GHG emissions from electrical sources.
Low-Carbon Fuel Standard	Transition to cleaner/less polluting fuels that have a lower carbon footprint	**Consistent**. This is a state program that requires no action at the local or project level. Benefits Project-related vehicle travel. The Proposed Project would implement Mitigation Measure GHG-1.1, ensuring that a minimum of 22 percent of the parking spaces would be for clean air vehicles or EVs, with at least 20 percent designated as EVSE ready, thereby supporting the projected future vehicle fleet.

Policy	Primary Objective	Project Consistency Analysis
Mobile-Source Strategy (Cleaner Technologies and Fuels Scenario)	Reduce GHGs and other pollutants from the transportation sector through a transition to zero- and low-emission vehicles and cleaner transit systems as well as reductions in VMT	**Consistent**. This is a state program that requires no action at the local or project level. The Proposed Project would incorporate TDM measures to reduce the number of vehicle trips.
SB 1383	Approve and implement an SLCP strategy to reduce highly potent GHGs	**Consistent**. This is a state program that requires no action at the local or project level. The Proposed Project would comply with the City's construction waste diversion requirements, which meet or exceed the state requirement for a 65 percent construction waste diversion, as codified in CALGreen. The Proposed Project would also be consistent with AB 341, which requires 75 percent of the Proposed Project's operational solid waste to be reduced, recycled, or composted.
California Sustainable Freight Action Plan	Improve freight efficiency, transition to zero-emission technologies, and increase the competitiveness of California's freight system	**Not Applicable**. This is a state program that requires no action at the local or project level. This program aims to improve freight efficiency by 25 percent, deploy more than 100,000 zero-emission freight vehicles, and increase the competitiveness of California's freight system. The Proposed Project would not involve freight vehicles.
Post-2020 Cap-and-Trade Program	Reduce GHGs across the largest GHG emission sources	**Not Applicable**. This a state program that requires no action at the local or project level. This program is not directly applicable to the Proposed Project because the Proposed Project is not a gross emitter of non-mobile-source GHG emissions and does not fall under the Cap-and-Trade Program.

Source: California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November. Available: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf. Accessed: November 3, 2021.

As shown in Table 3.6-7, the Proposed Project would be consistent with the primary objectives of the 2017 Scoping Plan. The analysis above indicates that operation of the Proposed Project would not conflict with implementation of CARB's 2017 Scoping Plan or attainment of the statewide GHG target for 2030 mandated by SB 32.

Conclusion

In summary, the Proposed Project, with incorporation of Mitigation Measure GHG-1.1 and Mitigation TRA-1.1, would be consistent with the BAAQMD GHG thresholds for land use projects. By being consistent with these thresholds, the Proposed Project would do its "fair share" in helping the state achieve its SB 32 goal by 2030 and carbon neutrality goal by 2045. The Proposed Project would not use natural gas, consistent with the City's reach code, which aligns with state and regional goals to reduce reliance on fossil fuels.

MITIGATION MEASURES. Implementation of Mitigation Measure GHG-1.1, which requires the number of EV spaces the Project Sponsor includes in the Project design to be consistent with the Tier 2 nonresidential voluntary measures from CALGreen for EV spaces, would ensure that the Proposed Project would meet the land use thresholds adopted by BAAQMD for EVs. BAAQMD considers projects that meet the Tier 2 standards for EV spaces to be providing their "fair share" of EV charging infrastructure.[47] The Proposed Project's inconsistency with the BAAQMD's EV requirement would be made consistent and thus less than significant with implementation of Mitigation Measure GHG-1.1.

GHG-1.1 *Adherence to CALGreen Tier 2 Voluntary Requirements of the California Green Building Code for Electric-Vehicle Charging Spaces*. The Project Sponsor shall include in the Project design a number of parking spaces for electric vehicles that is consistent with the most current version of the nonresidential voluntary measures (Appendix A5), Tier 2, pertaining to electric-vehicle parking, from the California Green Building Standards Code version applicable to the Proposed Project. The Project Sponsor shall document adherence to these Tier 2 requirements for electric-vehicle parking in the Project site plan and submit to the City before building permits are granted.

MITIGATION MEASURES. Implementation of Mitigation Measure TRA-1.1, which is presented in Section 3.1, *Transportation*, would ensure that operation of the Proposed Project would achieve the City's VMT threshold, thereby reducing associated mobile-source emissions.

Construction and operation of the buildings associated with the Proposed Project, with incorporation of Mitigation Measure GHG-1.1, would be consistent with all applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The buildings would meet BAAQMD's GHG threshold. Implementation of Mitigation Measure TRA-1 would ensure that operation of the Proposed Project would result in a level of VMT that would meet the City's VMT thresholds. For these reasons, implementation of Mitigation Measure TRA-1 would result in the Proposed Project being consistent with all applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions, thereby reducing this impact to ***less than cumulatively considerable with mitigation***.

Cumulative Impacts

Climate change is a global problem, and GHG impacts are inherently cumulative. This is because GHGs contribute to the global phenomenon that is climate change, regardless of where they are emitted. Climate change is the result of the individual contributions of countless past, present, and future sources. Therefore, GHG impacts are inherently cumulative, and the analysis above is inclusive of cumulative impacts.

[47] Bay Area Air Quality Management District. 2022. *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*. April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en. Accessed: May 20, 2022.

3.4 Noise

This section describes existing noise conditions within the Project area, sets forth criteria for determining the significance of noise impacts, and estimates the likely noise impacts that would result from operation of the Proposed Project. Issues related to the Proposed Project's physical environmental impacts, as identified in response to the Notice of Preparation (NOP) (Appendix 1-2), were considered in preparing this analysis. One comment requested that construction and operational noise associated with the Proposed Project be analyzed to assess potential effects on the TIDE Academy. Noise impacts on the TIDE Academy were assessed; the analysis is included below. Vibration impacts were appropriately evaluated in the Initial Study and therefore not reproduced in this section. Please refer to Appendix 1-1 for the full Initial Study and the analysis of vibration impacts.

Overview of Noise and Sound

A brief description of the noise and vibration concepts and terminology used in this assessment is provided below. Some of these are technical terms used in measuring sound and its effects, which are not easily explained in layman's terms.

- **Sound**. A vibratory disturbance transmitted by pressure waves through a medium such as air or water and capable of being detected by a receiving mechanism, such as the human ear or a microphone. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable. Commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals. Although the dB scale is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing.
- **A-weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear. The dBA scale is the most widely used scale for environmental noise assessments. Table 3.4-1 summarizes typical A-weighted sound levels for different noise sources.
- **Maximum Sound Levels (L_{max}).** The maximum sound level measured during the measurement period.
- **Minimum Sound Level (L_{min}).** The minimum sound level measured during the measurement period.
- **Equivalent Sound Level (L_{eq})**. The equivalent steady-state sound level that, in a stated period of time, contains the same acoustical energy. The 1-hour A-weighted equivalent sound level (L_{eq} 1h) is the energy average of A-weighted sound levels occurring over a 1-hour period.
- **Day-Night Level (L_{dn}).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with a 10 dB penalty added to sound levels between 10:00 p.m. and 7:00 a.m.

- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. L_{dn} and CNEL are typically within 1 dBA of each other and, for all intents and purposes, interchangeable.
- **Vibration Velocity Level (or Vibration Decibel Level, VdB).** The root-mean-square velocity amplitude for measured ground motion expressed in dB.
- **Peak Particle Velocity (PPV).** A measurement of ground vibration, defined as the maximum speed at which a particle in the ground is moving and expressed in inches per second (in/sec).
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors, including land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Table 3.4-1. Typical A-Weighted Sound Levels

Common Outdoor Activities	Sound Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 mph at 50 feet		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 3 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban area, daytime	50	Dishwasher in next room
Quiet urban area, nighttime	40	Theater, large conference room (background)
Quiet suburban area, nighttime		
	30	Library
Quiet rural area, nighttime		Bedroom at night, concert hall (background)
Rustling of leaves	20	
		Broadcast/recording studio
	10	
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/ transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: May 20, 2021.

Human sound perception, in general, is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. A doubling of actual sound energy is required to result in a 3 dB (i.e., barely noticeable) increase in noise; in practice, this means that the volume of traffic on a roadway would typically need to double to result in a noticeable increase in noise.

The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a point source, such as a stationary compressor or construction equipment, sound attenuates at a rate of 6 dB per doubling of distance. For a line source, such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance. Atmospheric conditions, including wind, temperature gradients, and humidity, can change how sound propagates (or travels) over distance and affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface, such as grass, attenuates at a greater rate than sound that travels over a hard surface, such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers, such as buildings and topography, that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Community noise environments are generally perceived as quiet when the 24-hour average noise level is below 45 dBA, moderate in the 45 to 60 dBA range, and loud above 60 dBA. Very noisy urban residential areas are usually around 70 dBA CNEL. Along major thoroughfares, roadside noise levels are typically between 65 and 75 dBA CNEL. Incremental increases of 3 to 5 dB to the existing 1-hour L_{eq} or CNEL are commonly used as thresholds for an adverse community reaction to a noise increase. However, there is evidence that incremental thresholds in this range may not be adequately protective in areas where noise-sensitive uses are located and CNEL is already high (i.e., above 60 dBA). In these areas, limiting noise increases to 3 dB or less is recommended.1 Noise intrusions that cause short-term interior levels to rise above 45 dBA at night can disrupt sleep. Exposure to noise levels greater than 85 dBA for 8 hours or longer can cause permanent hearing damage.

Existing Conditions

Environmental Setting

Principal Noise Sources in the Project Area

The ambient noise environment in the city of Menlo Park is affected by a variety of noise sources, including vehicles, trains, aircraft, and stationary sources. The section that follows describes the existing noise environment and identifies the primary noise sources in the vicinity of the Project site.

Existing Traffic Noise. Motor vehicles, with their distinctive noise characteristics, are a major source of noise in Menlo Park. The level of noise varies according to factors such as the volume of traffic, vehicle mix (i.e., percentage of cars and trucks), average traffic speed, and distance from the observer. Menlo Park is exposed to noise generated by traffic on US 101, Interstate (I) 280, State Route (SR) 84, El Camino Real (State Route 82), Middlefield Road, Willow Road, Ravenswood Avenue, Santa Cruz Avenue, and Sand Hill

[1] Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: May 20, 2020.

Road. Traffic is the main source of noise in the Project area. Significant roadways in the vicinity of the Project site include US 101 (adjacent to the southwest) and SR 84 (0.2 mile to the north). However, according to Figure 4.10-2 of the ConnectMenlo EIR, the Project site is not within a noise contour of 60 dBA CNEL/L_{dn} or greater associated with US 101 or SR 84. Note that most land uses, including residential uses, are considered compatible with noise levels below this level. For office buildings and commercial uses, noise levels of up to 70 dBA CNEL/L_{dn} are considered to be normally acceptable.

Existing Train Noise. Two rail lines traverse Menlo Park, the Dumbarton Rail Corridor and the Caltrain rail line. Although the Dumbarton Rail Corridor is adjacent to the Project site, it is currently not used and not an active noise source. The Caltrain rail line is active, but the tracks are more than 1.5 miles from the Project site. Therefore, train noise is not expected to dominate the noise environment in the Project area.

Aircraft Noise. Menlo Park is approximately 6 miles northwest of Moffett Federal Airfield, 14 miles northwest of San José International Airport, 15 miles southeast of San Francisco International Airport, and 18 miles south of Oakland International Airport. In addition, San Carlos Airport is approximately 6 miles northwest of the Project site, and Hayward Executive Airport is more than 12 miles northeast of the Project site. The closest airport to the Project site is Palo Alto Airport, which is approximately 3 miles away. According to the ConnectMenlo EIR, although Menlo Park does receive some noise from aircraft at these facilities, Menlo Park (including the Project site) does not fall within airport land use planning areas, runway protection zones, or the 55 dBA CNEL noise contours (i.e., the lowest noise contour for aircraft noise typically presented) of any of the airports.

Existing Stationary-Source Noise. Stationary sources of noise may occur with all types of land uses. Menlo Park is developed with mostly residential, commercial, and light industrial uses. Stationary sources at commercial and light industrial uses include heating, ventilation, and air-conditioning (HVAC) systems; loading docks; and the machinery required for manufacturing processes. Noise generated by commercial uses is generally brief and intermittent. Industrial uses may generate noise continuously or intermittently, depending on the processes and types of machinery involved. The majority of Menlo Park's limited industrial operations are north of the city and separated from sensitive uses such as residences by rail lines or major roadways. Distance serves to decrease the noise perceived at a given receptor. For uses located near major roads or thoroughfares, noise at noise-sensitive land uses from constant traffic generally exceeds that from individual and often intermittent noise sources at industrial uses.

Surrounding Land Uses

The Project site is bounded by Jefferson Drive and office buildings to the north, the currently inactive Dumbarton Rail Corridor to the southeast, a portion of the Campus Property to the south, and an office building to the west. The nearest noise-sensitive uses are the TIDE Academy, which is approximately 450 feet northwest of the Project site and approximately 215 feet west of the proposed Jefferson Park and residential land uses, which are southwest of the Project site and across US 101. The residential land uses are more than 250 feet from the southernmost portions of the Project site, areas where construction of the primary trails may occur, along with landscaping, and more than 350 feet from areas where construction of the proposed parking structure would occur. The Proposed Project office building, Building 3, would be more than 650 feet from these homes and more than 400 feet from the TIDE Academy.

ConnectMenlo Noise Monitoring

In addition to the Project-specific noise measurements conducted in 2021, the ConnectMenlo EIR included ambient noise monitoring data from various locations within the ConnectMenlo area.[2] For the ConnectMenlo EIR, existing ambient noise levels were measured at 16 locations in the city to document representative noise levels at various locations. Short- and long-term measurements were taken on December 6 and 10, 2012; long-term noise level measurements were taken for a period of 24 hours on December 10 and 11, 2012.

The ConnectMenlo EIR locations closest to the Project site are shown in Figure 3.4-1. The closest short-term measurement location is ST-2, approximately 0.6 mile northwest of the Project site (i.e., an approximately 15-minute manned measurement). Measurement locations ST-3 and ST-4 are both approximately 1 mile east of the Project site. The closest long-term measurement location is LT-1, approximately 0.6 mile west of the Project site (i.e., a 24-hour measurement). Data from these measurement locations are presented in Table 3.4-2. Note that noise measurements from the 2012 survey are presented for informational purposes to help characterize existing ambient noise levels but are not used quantitatively in the Project analysis.

Table 3.4-2. 2012 Noise Measurement Results

Monitoring Site	L_{min}	L_{eq}	L_{max}	CNEL
ST-2	53.9	63.6	78.8	—
ST-3	50.6	56.5	60.9	—
ST-4	50.9	59.5	72.3	—
LT-1	—	—	—	67.1

Source: City of Menlo Park. 2016. *ConnectMenlo: General Plan Land Use and Circulation Elements and M-2 Area Zoning Update for the City of Menlo Park EIR.*

Existing Noise Levels

Ambient noise is often monitored or measured to characterize ambient noise levels in the vicinity of a given project. To quantify existing ambient noise levels in the vicinity of the Proposed Project, one long- (24-hour) and one short-term (15-minute) ambient noise measurement were conducted between Tuesday, July 27, 2021, and Wednesday, July 28, 2021. The long-term measurement was conducted using a Piccolo II Type-2 sound level meter, and the short-term measurement was conducted with a Larson Davis LxT Type-1 sound level meter. Weather conditions were clear and sunny when the measurements were conducted, with an average wind speed of 1.7 miles per hour and temperatures ranging from 65 to 79 degrees Fahrenheit. The existing ambient (i.e., pre-Project) noise levels in the Project area are dominated largely by the traffic on major roadways.

The short-term measurement location (ST-1) was south of the Project site (near 162 Jefferson Drive), along a pathway running parallel to US 101. Highway traffic noise was the dominant source at this location, with a measured L_{eq} noise level of approximately 74 dBA L_{eq}. The long-term measurement, LT-1,

[2] This EIR considers the ambient noise levels collected for the ConnectMenlo EIR. Because the measurements are from 2012, they provide a reasonably conservative (i.e., unlikely to overestimate) characterization of ambient noise levels in the Project area. Note that the measurement data are not used quantitatively in the assessment of impacts; measurement information is presented for informational purposes only.

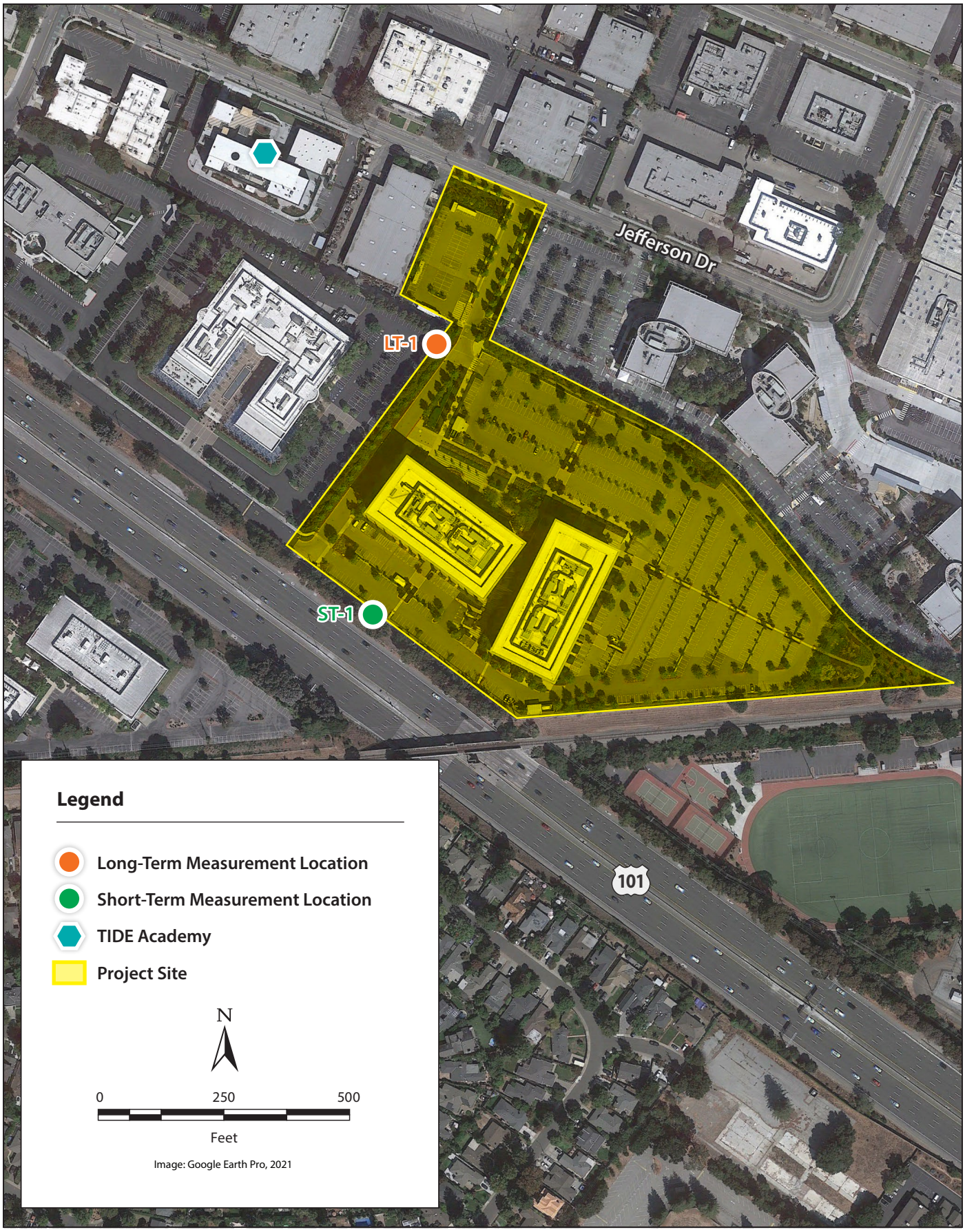

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Figure 3.4-1
Noise Measurement Locations

was in the northeast corner of an office parking lot between TIDE Academy and the Project site. LT-1 had a recorded L_{dn} noise level of 62 dBA L_{dn}., with a 12-hour average L_{eq} noise level of 58.2 dBA L_{eq}. Refer to Figure 3.4-1 for the noise measurement locations and Tables 3.4-3 and 3.4-4 for a summary of the recorded noise measurements in the Project area. Appendix 3.4 includes the complete dataset of measured noise.

Table 3.4-3. Short-Term Noise Measurement Data

ST Site	Site Description	Measurement Date	L_{eq}	L_{max}	L_{min}	Dominant Noise Source
ST-1	162 Jefferson Drive	07/28/2021	73.7	81.2	67.9	Highway traffic noise from US 101

Note: See Appendix 3.4 for data.
ST = long-term (15-minute) ambient noise measurement.
All noise levels are reported in A-weighted decibels (dBA).

Table 3.4-4. Long-Term Noise Measurement Data

LT Site	Site Description	Measurement Date	L_{dn}	CNEL	Highest 1-hour L_{eq} (Time)	Lowest 1-hour L_{eq} (Time)	12-hour Daytime L_{eq}
LT-1	Along Jefferson Drive, 149 Commonwealth Drive	07/27/2021–07/28/2021	62.0	62.4	59.0 07/28/2021 7:00 a.m.	50.2 07/28/2021 1:00 a.m.	58.2

Note: See Appendix 3.4 for data.
LT = long-term (24-hour) ambient noise measurement.
All noise levels are reported in A-weighted decibels (dBA).

Existing Traffic Noise Modeling

Traffic noise modeling can also help estimate existing ambient noise levels in the vicinity of a project because traffic noise is often the dominating noise source in urban environments. However, noise measurements provide a more accurate representation of the existing noise environment, including influences from sources besides traffic. To provide context related to the existing ambient traffic noise levels in the Project area, traffic noise levels were modeled under existing conditions using a spreadsheet model based on the Federal Highway Administration's Traffic Noise Model, and the traffic volumes, posted speeds, and heavy truck percentages provided by Kittelson & Associates (the traffic engineer for the Proposed Project). Table 3.4-5 summarizes the modeled existing noise levels along roadway segments in the general Project area.

Table 3.4-5. Modeled Existing Traffic Noise Levels

Roadway	Segment	Existing ADT	Existing dBA L_{dn}
Bay Road	North of Marsh Road	1,300	55.7
Bay Road	North of Ringwood Avenue	5,920	62.0
Bay Road	North of Willow Road	4,010	60.4
Bay Road	South of Marsh Road	5,740	61.9
Bay Road	South of Ringwood Avenue	7,080	62.8
Bayfront Expressway	North of Chilco	36,330	73.7
Bayfront Expressway	North of Chrysler Drive	41,920	74.3
Bayfront Expressway	North of University Avenue	43,650	74.5
Bayfront Expressway	North of Willow Road	30,180	72.9
Bayfront Expressway	South of Chilco	35,670	74.9
Bayfront Expressway	South of Chrysler Drive	35,590	73.6
Bayfront Expressway	South of Marsh Road	43,060	69.7
Bayfront Expressway	South of University Avenue	64,390	76.2
Bayfront Expressway	South of Willow Road	48,170	74.9
Bohannon Drive	South of Marsh Road	2,680	57.8
Chilco Street	East of Constitution Drive	9,520	63.1
Chilco Street	West of Bayfront Expressway	8,140	62.5
Chilco Street	West of Constitution Drive	9,010	62.9
Chrysler Drive	East of Constitution Drive	10,130	63.4
Chrysler Drive	East of Independence Drive	4,450	59.9
Chrysler Drive	East of Jefferson Drive	5,950	61.1
Chrysler Drive	West of Bayfront Expressway	8,270	62.5
Chrysler Drive	West of Constitution Drive	6,560	61.5
Chrysler Drive	West of Independence Drive	2,120	56.8
Chrysler Drive	West of Jefferson Drive	5,030	60.4
Constitution Drive	North of Chilco	5,650	63.1
Constitution Drive	North of Chrysler Drive	3,970	61.5
Constitution Drive	South of Chilco	2,700	59.9
Constitution Drive	South of Chrysler Drive	5,460	62.9
Florence Street	North of Marsh Road	11,950	64.1
Hamilton Avenue	North of Willow Road	2,500	57.5
Hamilton Avenue	South of Willow Road	4,720	60.1
Haven Avenue	North of Marsh Road	10,250	63.5
Independence Drive	North of Chrysler Drive	4,040	59.5
Independence Drive	South of Chrysler Drive	230	48.5
Ivy Drive	North of Willow Road	2,140	56.8
Jefferson Drive	South Chrysler Drive	4,680	60.1
Marsh Road	East of Bay Road	19,410	68.4
Marsh Road	East of Bayfront Expressway	1,110	56.2
Marsh Road	East of Bohannon Drive	22,910	69.1

Roadway	Segment	Existing ADT	Existing dBA L_{dn}
Marsh Road	East of Middlefield	16,280	67.6
Marsh Road	East of US 101	30,860	70.4
Marsh Road	East of US 101 SB off-ramp	31,350	70.4
Marsh Road	North of Scott Drive	22,010	68.9
Marsh Road	South of Scott Drive	30,330	70.3
Marsh Road	West of Bay Road	15,250	67.3
Marsh Road	West of Bayfront Expressway	41,140	71.6
Marsh Road	West of Bohannon Drive	19,320	68.4
Marsh Road	West of US 101	32,360	70.6
Marsh Road	West of US 101 SB off-ramp	22,550	69.0
Middlefield Road	North of Marsh Road	12,800	66.6
Middlefield Road	North of Willow Road	14,530	67.1
Newbridge Street	North of Willow Road	9,520	63.1
Newbridge Street	South of Willow Road	8,570	62.7
Obrien Drive	South of Willow Road	7,280	62.0
Ringwood Avenue	East of Bay Road	1,000	53.7
Ringwood Avenue	West of Bay Road	9,340	63.1
Scott Drive	North of Marsh Road	4,980	60.4
Scott Drive	South of Marsh Road	4,760	60.2
University Avenue	West of Bayfront Expressway	22,500	69.0
Willow Road	East of Bay Road	22,200	70.2
Willow Road	East of Bayfront Expressway	7,010	65.3
Willow Road	East of Hamilton Avenue	24,460	70.7
Willow Road	East of Ivy Drive	23,950	70.6
Willow Road	East of Middlefield Road	13,940	66.9
Willow Road	East of Newbridge Street	29,180	71.4
Willow Road	East of Obrien Drive	23,670	70.5
Willow Road	East of US 101 SB ramp	28,350	70.0
Willow Road	East of US 101 SB ramp	38,750	71.4
Willow Road	West of Bay Road	19,390	69.7
Willow Road	West of Bayfront Expressway	25,260	70.8
Willow Road	West of Hamilton Avenue	23,500	70.5
Willow Road	West of Ivy Drive	24,970	70.8
Willow Road	West of Newbridge Street	35,030	72.2

Source: Kittelson & Associates, Inc. Refer to Appendix 3.4.

Note:

Daily traffic volumes have been calculated by taking the p.m. peak-hour volumes and multiplying by a factor of 10, based on guidance from the traffic engineer who evaluated the Proposed Project.

Modeling results presented at a distance of 50 feet from roadway centerline for all analyzed segments.

ADT = average daily traffic; SB = southbound

Regulatory Setting

Federal Regulations

No federal laws, regulations, or policies for construction-related noise and vibration directly apply to the Proposed Project. However, the Federal Transit Administration (FTA) has developed general assessment criteria for analyzing construction noise. Although FTA standards are intended for federally funded mass-transit projects, the impact assessment procedures and criteria included in the FTA's *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) are used routinely to evaluate a variety of projects proposed by local jurisdictions (i.e., not exclusively used for transit projects). The FTA construction guidelines state that each A-weighted sound level increase of 10 dB corresponds to an approximate doubling of subjective loudness. As a result, a 10 dB increase in the ambient noise level is often used as the threshold to determine if an increase in ambient noise levels as a result of construction would be considered substantial.

Local Regulations

City of Menlo Park General Plan

The City of Menlo Park (City) General Plan contains general goals, policies, and programs that require local planning and development decisions to consider noise impacts. The Noise and Safety Element sets goals, policies, and implementing programs that work to achieve acceptable noise levels. In addition, the Noise and Safety Element sets land use compatibility noise standards for new developments. The following City General Plan goals, policies, and programs would serve to minimize potential adverse impacts related to noise:

Goal N1: Achieve Acceptable Noise Levels.

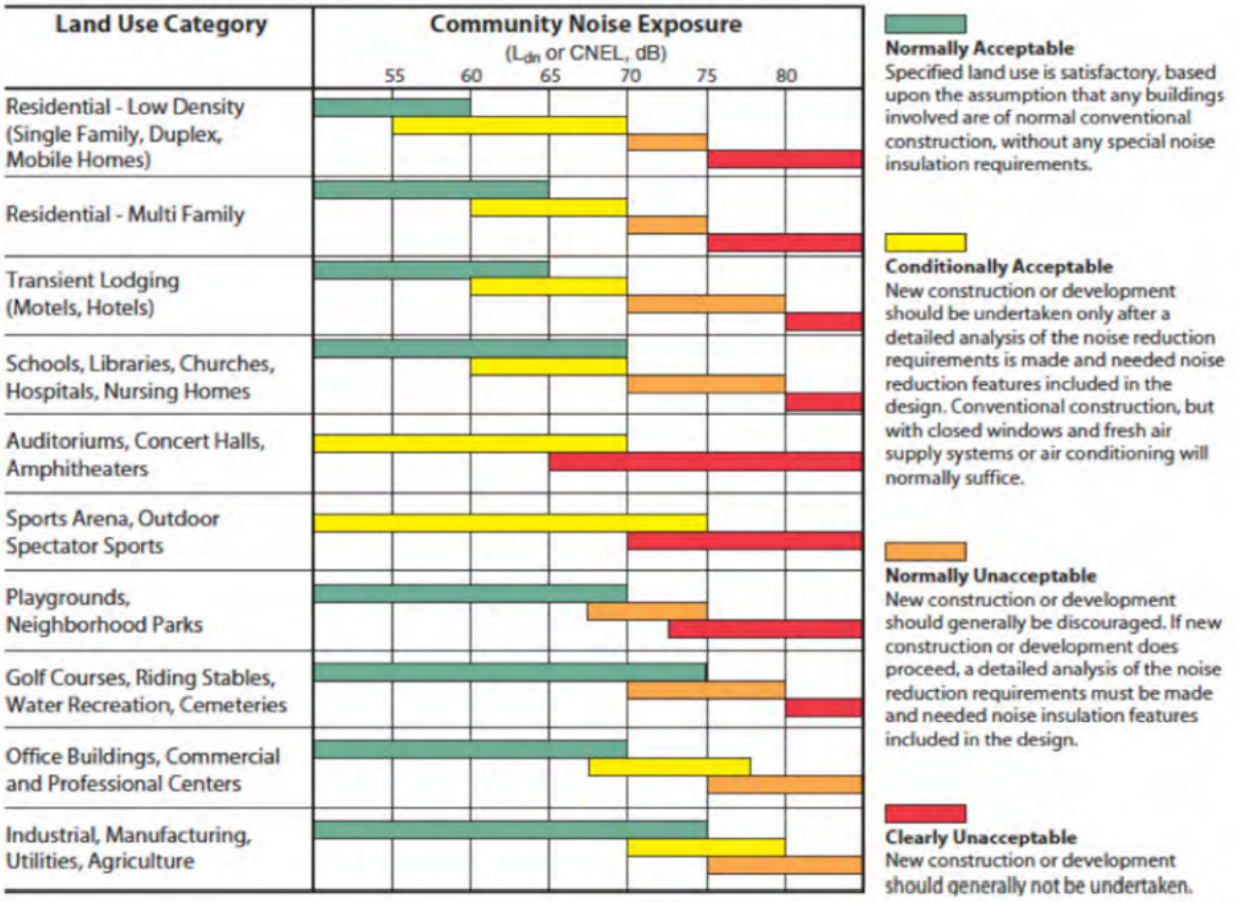
Policy N1.1: Compliance with Noise Standards. Consider the compatibility of proposed land uses with the noise environment when preparing or revising community and/or specific plans. Require new projects to comply with the noise standards of local, regional, and building code regulations, including, but not limited to, the City's Municipal Code, Title 24 of the California Code of Regulations, and subdivision and zoning codes.

Policy N1.2: Land Use Compatibility Noise Standards. Protect people in new development from excessive noise by applying the City's Land Use Compatibility Noise Standards for New Development to the siting and required mitigation for new uses in existing noise environments (refer to Table 3.4-6, below)

Policy N1.3: Exterior and Interior Noise Standards for Residential Use Areas. Strive to achieve acceptable interior noise levels and exterior noise levels for backyards and/or common usable outdoor areas in new residential development and reduce outdoor noise levels in existing residential areas where economically and aesthetically feasible.

Policy N1.4: Noise-Sensitive Uses. Protect existing residential neighborhoods and noise-sensitive uses from unacceptable noise levels and vibration impacts. Noise-sensitive uses include, but are not limited to, hospitals, schools, religious facilities, convalescent homes, and businesses with highly sensitive equipment. Discourage the siting of noise-sensitive uses in areas in excess of 65 dBA CNEL without appropriate mitigation, and locate noise-sensitive uses away from noise sources unless mitigation measures are included in development plans.

Table 3.4-6. Land Use Compatibility Noise Standards for New Development



Policy N-1.5 Planning and Design of New Development to Reduce Noise Impacts. Design residential developments to minimize the transportation-related noise impacts on adjacent residential areas and encourage new development to be site planned and architecturally designed to minimize noise impacts on noise-sensitive spaces. Proper site planning can be effective in reducing noise impacts

Policy N1.6: Noise Reduction Measures. Encourage the use of construction methods, state-of-the-art noise-abating materials and technology, and creative site design, including, but not limited to, open space, earthen berms, parking, accessory buildings, and landscaping, to buffer new and existing development from noise and reduce potential conflicts between ambient noise levels and noise-sensitive land uses. Use sound walls only when other methods are not practical or when recommended by an acoustical expert.

Policy N1.7: Noise and Vibration from New Non-Residential Development. Design non-residential development to minimize noise impacts on nearby uses. Where vibration impacts may occur, reduce impacts on residences and businesses through the use of setbacks and/or structural design features that reduce vibration to levels at or below the guidelines of the Federal Transit Administration near rail lines and industrial uses.

Policy N1.8: Potential Annoying or Harmful Noise. Preclude the generation of annoying or harmful noise from stationary noise sources, such as construction and property maintenance activity and mechanical equipment.

Policy N1.9: Transportation-Related Noise Attenuation. Strive to minimize traffic noise through land use policies, traffic-calming methods to reduce traffic speed, and law enforcement and street improvements, and encourage other agencies to reduce noise levels generated by roadways, railways, rapid transit, and other facilities.

Policy N1.10: Nuisance Noise. Minimize impacts from noise levels that exceed community sound levels through enforcement of the City's Noise Ordinance. Control unnecessary, excessive, and annoying noises within the city where not preempted by federal and state control through implementation and updating of the noise ordinance.

Policy N1.D: Minimize Construction Activity Noise. Minimize the exposure of nearby properties to excessive noise levels from construction-related activity through CEQA review, conditions of approval, and enforcement of the City's Noise Ordinance.

Land use compatibility noise standards are included in the City's Noise Element. According to the Noise Element, noise levels up to 60 dBA L_{dn} are considered normally acceptable for single-family residential land uses; noise levels are conditionally acceptable up to 70 dBA L_{dn} for these uses as long as noise insulation features are included in the design to reduce interior noise levels. For multi-family residential and hotel uses, noise levels of up to 65 dBA L_{dn} are considered normally acceptable, with noise levels of 70 dBA L_{dn} considered to be conditionally acceptable. For office buildings and commercial uses, noise levels of up to 70 dBA L_{dn} are considered to be normally acceptable, with noise levels of up to 77.5 dBA L_{dn} considered conditionally acceptable. For industrial uses, noise levels up to 75 dBA L_{dn} are considered normally acceptable, and noise levels of up to 80 dBA L_{dn} are conditionally acceptable. For schools and churches, playgrounds, and neighborhood parks, noise levels up to 70 dBA L_{dn} are considered normally acceptable; there are no separate conditionally acceptable noise limits for these uses.

Menlo Park City Code

In addition to the City General Plan, the Menlo Park Municipal Code also contains noise regulations. Chapter 8.06 of the Menlo Park Municipal Code contains noise limitations and exclusions for land uses within Menlo Park. The code concerns noise limits that constitute a noise disturbance, as measured primarily at residential land uses. Selected excerpts of the regulations set forth in the Menlo Park Municipal Code and outlined below would be applicable to the Proposed Project, as would other noise regulations from the Menlo Park Municipal Code found within Chapter 8.06 and Chapter 16.08.

8.06.030, Noise Limitations

(a) Except as otherwise permitted in this chapter, any source of sound in excess of the sound level limits set forth in Section 8.06.030 shall constitute a noise disturbance. For purposes of determining sound levels from any source of sound, sound level measurements shall be made at a point on the receiving property nearest where the sound source at issue generates the highest sound level. Sound level measurements shall be made with a precision sound level meter (Type 1 or 2) set to A-weighting and "fast" response for fluctuating sound. Slow or fast response may be used for continual sources. For repetitive, impulsive sound, the one (1) second rms maximum level (L_{max}) shall be used.

1. For all sources of sound measured from any residential property:

   A. Nighttime hours (10:00 p.m. to 7:00 a.m.): 50 dBA

   B. Daytime hours (7:00 a.m. to 10:00 p.m.): 60 dBA

   . . .

3. Corrections for character of sound: In the event the alleged offensive noise contains a steady, audible tone, such as a whine, screech, or a beating, pulsating, throbbing, or humming sound, the standards set forth in Section 8.06.030(a)(1) and (2) shall be reduced by five (5) dB.

8.06.040, Exceptions

a. Construction Activities

   1. Construction activities between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday.

      . . .

   3. A sign containing the permitted hours of construction activities exceeding the noise limits set forth in Section 8.06.030 shall be posted at all entrances to a construction site upon the commencement of construction for the purpose of informing contractors and subcontractors and all other persons at the construction site of the basic requirements of this chapter. The sign shall be at least 5 feet above ground level and shall consist of a white background with black letters,

   4. Notwithstanding any other provision set forth above, all powered equipment shall comply with the limits set forth in Section 8.06.040(b).

b. Powered Equipment

   1. Powered equipment used on a temporary, occasional, or infrequent basis operated between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday. No piece of equipment shall generate noise in excess of 85 dBA at 50 feet.

      . . .

d. Deliveries

   1. Deliveries to food retailers and restaurants.

   2. Deliveries to other commercial and industrial businesses between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. Saturdays, Sundays, and holidays.

      . . .

f. Street Sweeping/Parking Lot Sweeping. Street sweeping/parking lot sweeping Monday through Friday between the hours of 7:00 a.m. and 6:00 p.m. anywhere in the city and street sweeping between the hours of 4:30 a.m. and 6:00 p.m. Monday through Friday on selected streets/public parking plazas (as described in the Menlo Park Municipal Code).

g. Garbage Collection. Garbage collection Monday through Friday between the hours of 6:00 a.m. and 6:00 p.m. throughout the city, between the hours of 2:00 a.m. and 6:00 p.m. Monday through Friday, and between the hours of 6:00 a.m. and 6:00 p.m. on Saturdays for properties abutting the selected streets (as described in the Menlo Park Municipal Code).

8.06.050, Exemptions

a. Sound Generated by Motor Vehicles. Sound generated by motor vehicles, trucks, and buses operated on streets and highways; aircraft; trains; and other means of public transportation.

   1. This exemption shall not apply to the operation of any vehicle, including any equipment attached to any vehicle (such as attached refrigeration and/or heating units or any attached auxiliary equipment) for a period in excess of 10 minutes in any hour while the vehicle is stationary, for reasons other than traffic congestion.

Furthermore, the City Zoning Ordinance contains regulations related to roof-mounted equipment.

16.08.095, Roof-mounted Equipment

Mechanical equipment, such as air-conditioning equipment, ventilation fans, vents, ducting, or similar equipment, may be placed on the roof of a building, provided that such equipment is screened from view as observed at an eye level horizontal to the top of the roof-mounted equipment, except for the SP-ECR/D district, which has unique screening requirements, and all sounds emitted by such equipment shall not exceed 50 decibels at a distance of 50 feet from such equipment.

Environmental Impacts

This section discusses potential noise impacts that could result from implementation of the Proposed Project. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact would be significant. A summary of ConnectMenlo EIR impacts and mitigation measures is then provided. As previously discussed in Chapter 1, *Introduction*, the analysis below makes reference to, and tiers from, the ConnectMenlo Final EIR, where appropriate. A brief summary of the Project-related noise impacts that were scoped out in the Initial Study (Appendix 1-1) is also included. The latter part of this section identifies the potential impacts of the Proposed Project as well as mitigation measures, as appropriate.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Project would have a significant effect if it would result in any of the conditions listed below.

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.
- Generate excessive ground-borne vibration or ground-borne noise.
- For a project in 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, expose people residing or working in the project area to excessive noise levels.

Summary of Analysis in the ConnectMenlo EIR

The topics of construction and operational noise effects were analyzed in the ConnectMenlo EIR as Impact NOISE-1 (pages 4.10-19 to 4.10-24) and determined to be less than significant with application of mitigation measures as well as compliance with City General Plan goals and policies. Projects that would result in the development of sensitive land uses, which the Project would not, must maintain an indoor L_{dn} of 45 dBA or less, as required by ConnectMenlo EIR Mitigation Measure NOISE-1a and existing

regulations. Projects that could expose existing sensitive receptors to excessive noise must comply with ConnectMenlo EIR Mitigation Measures NOISE-1b and NOISE-1c to minimize both operational and construction-related noise. The topic of potential traffic noise effects was discussed in the ConnectMenlo EIR as Impact NOISE-3 (pages 4.10-29 to 4.10-36). It was determined that implementation of ConnectMenlo would not result in a substantial permanent increase in ambient noise on any of the identified roadway segments. No mitigation measures were recommended.

The topic of construction vibration was analyzed in the ConnectMenlo EIR as Impact NOISE-2 (pages 4.10-25 to 4.10-29). The impact was determined to be potentially significant. With implementation of Mitigation Measures NOISE-2a and NOISE-2b, this impact would be reduced to a less-than-significant level. The analysis concluded that, overall, vibration impacts related to construction would be short term, temporary, and generally restricted to areas in the immediate vicinity of construction activity. However, because project-specific information was not available, the analysis did not quantify construction-related vibration impacts on sensitive receptors. Implementation of Mitigation Measure NOISE-2a would reduce construction-related vibration impacts to a less-than-significant level through preparation of a vibration analysis to assess vibration levels and the use of alternate construction techniques to reduce vibration, if necessary. Specifically, according to Mitigation Measure NOISE-2a from the ConnectMenlo EIR, vibration levels must be limited to a PPV of 0.126 in/sec at the nearest workshop, 0.063 in/sec at the nearest office, and 0.032 in/sec at the nearest residence during daytime hours and 0.016 in/sec at the nearest residence during nighttime hours. Regarding long-term construction impacts, ConnectMenlo requires projects to comply with Mitigation Measure NOISE-2b, which requires the City to implement best management practices as part of the project approval process.

The topic of aircraft noise from public use airports and private airstrips was discussed in the ConnectMenlo EIR as Impact NOISE-5 (page 4.10-38) and Impact NOISE-6 (page 4.10-38). It was determined that there would be no impact related to aircraft noise.

Impacts Not Evaluated in Detail

The Initial Study (Appendix 1-1) analyzed potential Project impacts from construction-related vibration. It was determined that such impacts would be less than significant. In addition, the Initial Study analyzed the potential for aircraft-related noise impacts, given the Proposed Project's proximity to a public airport or private airstrip. According to both the ConnectMenlo EIR and the Initial Study, the Proposed Project is within the ConnectMenlo study area. However, the ConnectMenlo EIR determined there would be no impact related to aircraft noise for projects in the ConnectMenlo study area. Thus, no further analysis of aircraft-related noise is required.

Methods for Analysis

Construction Noise

To determine if construction would result in noise impacts, a screening analysis was conducted to determine which subphases of construction would require the loudest equipment, based on an equipment list provided by the Project Sponsor, and result in the greatest noise levels. Then, construction noise modeling was conducted for the loudest subphase(s) of construction, assuming that the three loudest pieces of equipment expected to be used during a given phase of construction would be operating simultaneously and close to one another on the Project site. Combining the noise level from the two or three loudest pieces of equipment and assuming they are all operating very close to one another and very near the closest offsite sensitive receptor results in a reasonably representative worst-case combined noise level. Construction noise taking place from 8:00 a.m. to 6:00 p.m. is considered exempt from the

general quantitative noise standards of the City, except for the noise limit on individual powered equipment of 85 dBA at 50 feet. An analysis to determine if equipment proposed for Project construction would comply with this threshold is also included. In addition, despite the exemption for daytime construction noise, construction activities that are exempt from specified noise limitations in the Menlo Park Municipal Code could still result in a significant physical impact on the environment. Therefore, construction noise generated during daytime hours is compared to the existing ambient noise level to estimate temporary increases in noise over the existing ambient level. An evaluation is conducted to determine if a 10 dB increase over the existing ambient noise, perceived as a doubling of loudness, would be expected to occur at nearby noise-sensitive land uses.

Operational Traffic Noise

To determine if the Proposed Project would result in a substantial permanent increase in traffic noise, vehicular traffic data, in the form of hourly turning movements, provided by Kittelson & Associates (2021) were converted into segment-specific average daily traffic (ADT) volumes for analysis. Specifically, ADT was calculated by taking the highest p.m. peak-hour traffic volumes and multiplying by 10, based on guidance from Kittelson & Associates. Traffic volumes for existing No-Project and existing with-Project conditions were then compared to determine if traffic increases associated with the Proposed Project would result in significant traffic noise impacts. Estimates of traffic noise increases were based on a ratio analysis that compared existing traffic volumes to existing Plus-Project traffic volumes.

Other Operational Noise Sources

Other potential sources of Project-related operational noise, including mechanical HVAC equipment, emergency generators, loading dock activity, parking structure activity, and activity at Jefferson Park, were also assessed, based on information provided by the Project Sponsor.

Impacts and Mitigation Measures

Impact NOI-1: The Proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. (LTS/M)

Construction

The Proposed Project would consist of three construction phases. Each phase would include demolition, site preparation, trenching/utilities, grading/excavation, building structure, building exterior, and paving subphases. Phase 1 would involve construction of the parking structure, which would cover 404,000 gsf. Phase 2 would involve construction of the 249,500 gsf office building. Phase 3 would involve the construction of Jefferson Park, which would have an area of 34,000 gsf. The overall construction period is expected to last approximately 39 months. Standard construction work hours would be 8:00 a.m. to 6:00 p.m. Monday through Friday, though pre-construction work could start earlier than 8:00 a.m. on weekdays and construction activities could occur later than 6:00 p.m. on weekdays and on the weekends. Noise from these activities would be regulated by the noise limitations of the City Noise Ordinance.

Construction activities are regulated by provisions of the Menlo Park Municipal Code, as set forth in Chapter 8.06 Noise, of Title 8 ("Noise Ordinance"). Section 8.06.030 of the Noise Ordinance limits noise to 60 dBA at the nearest residential property line during daytime hours (7:00 a.m. to 10:00 p.m.) ("daytime noise limits") and to 50 dBA at the nearest residential property line during nighttime hours (10:00 p.m.

to 7:00 a.m.) ("nighttime noise limits"). As provided by Section 8.06.040(a), construction activities taking place between 8:00 a.m. and 6:00 p.m. on weekdays are identified as an exception to the daytime noise limitations set forth in Section 8.06.030 of the Noise Ordinance. Accordingly, noise generated by construction activities taking place between 8:00 a.m. to 6:00 p.m. Monday through Friday could exceed the daytime noise limits set forth in Section 8.06.030 and would not constitute a violation of the Noise Ordinance. However, an assessment should still be conducted to determine if a substantial temporary increase in ambient noise levels would occur during daytime hours. If construction noise results in a 10 dB increase over the existing ambient noise, perceived as a doubling of loudness, the temporary noise increase may be considered substantial.

Construction work occurring outside of the hours of 8:00 a.m. to 6:00 p.m. weekdays would need to be "quiet" pre-construction work, such as site meetings and equipment preparation. Such quiet construction work could start earlier than 8:00 a.m. on weekdays, and construction activities could occur later than 6:00 p.m. on weekdays and at all hours on the weekends. Noise from these activities would be regulated by the noise limitations of the Noise Ordinance. Noise from any construction activities proposed for non-exempt hours are compared to the applicable City thresholds and are evaluated for the potential for substantial temporary increases in ambient noise levels to occur.

With regard to daytime construction, typical equipment would be used, including concrete/industrial saws, excavators, dozers, tractors, loaders, scrapers, graders, cranes, forklifts, welders, aerial lifts, pavers, rollers, and tractors. No pile driving would occur. As described previously, individual pieces of equipment proposed for use during Project construction would be required to comply with the threshold for powered equipment (i.e., 85 dBA at 50 feet). The noise levels generated by individual pieces of construction equipment planned for use with Project construction activities are shown in Table 3.4-7.

Table 3.4-7. Individual Construction Equipment L_{eq} Noise levels Based on Standard Utilization Rates

	Individual Equipment Noise Levels (dBA) at 50 Feet
Equipment	**dBA L_{eq} [a]**
Aerial Lift	68
Concrete Mixer Truck	75
Concrete Pump Truck	74
Concrete Saw	83
Crane	73
Dozer	78
Excavator	77
Forklift	80
Generator	78
Grader	81
Jackhammer	82
Paver	74
Roller	73
Scraper	80
Tractor	80
Welder/Torch	70

Source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: https://www.fhwa.dot.gov/ENVIRonment/noise/construction_noise/rcnm/rcnm.pdf. Accessed: May 18, 2021.

[a] Based on standard estimated utilization rates from FHWA.

As shown in Table 3.4-7, noise from individual pieces of equipment proposed for Project construction would not be expected to exceed 85 dBA L_{eq} at a distance of 50 feet. Because all equipment proposed for Project construction would comply with this limit, impacts related to equipment noise exceedances would be less than significant.

To determine if combined construction noise would result in noise impacts, a screening analysis was conducted to determine which subphases of construction would require the loudest equipment, based on the equipment list provided by the Project Sponsor, and result in the greatest noise levels. The preliminary screening analysis indicated that demolition subphase would be the loudest for each Project component (e.g., parking structure, Building 3, Jefferson Park).

Construction noise modeling was conducted for demolition activities, assuming that the three loudest pieces of equipment expected to be used during a given phase of construction would be operating simultaneously and close to one another on the Project site. Combining the noise level from the three loudest pieces of equipment and assuming they are all operating very near one another and very near the closest offsite sensitive receptor results in a reasonably representative worst-case combined noise level. This is the approach recommended by the Federal Transit Administration. Combined construction noise levels for the building construction phase were estimated using the Federal Highway Administration's Roadway Construction Noise Model calculation methods. The modeling results are presented in Table 3.4-8, below. It is worth noting, as defined in Section 8.06.020 (2) of the Noise Ordinance, that "construction activities" do not include radios or amplified music on a construction site; therefore, noise from these sources on a construction site are not excepted from the applicable daytime noise limits of nighttime noise limits.

As shown in Table 3.4-8, below, assuming all demolition equipment would be used in all portions of the Project site, worst-case construction noise levels at the nearest receptor locations are as follows:

- At the nearest school (approximately 215 feet from Jefferson Park), up to 73 dBA L_{eq};
- At the nearest residential land use (250 feet from the southern portion of the Project site), up to 71 dBA L_{eq}; and
- At nearby commercial or industrial uses adjacent to the Project site (at 10- to 50-foot distances or more), potentially greater than 91 dBA L_{eq}.

Note that most Project construction activities would occur during the exempt daytime hours of 8:00 a.m. to 6:00 p.m. Therefore, Project construction during daytime hours would be exempt from the quantitative limits in the Menlo Park Municipal Code.

Reasonable worst-case construction noise is also compared to the estimated existing ambient noise level to determine if a substantial temporary increase in ambient noise levels would occur as a result of Project construction. As shown in Table 3.4-4, the estimated 12-hour daytime L_{eq} noise level in the vicinity of the nearest receptor (the TIDE Academy) was measured to be approximately 58 dBA L_{eq}. Therefore, a noise level of 73 dBA L_{eq} at this location as a result of Project construction activities would constitute a 15 dB increase over the ambient noise level.

As described previously, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases, respectively. Therefore, an increase in noise of 10 dB or more would be considered substantial. Because the construction noise increase at TIDE Academy is estimated to be up to 15 dBA, temporary increases in noise from Project construction during daytime hours would be considered substantial.

Table 3.4-8. Reasonable Worst-Case Construction Noise (L_{max} and L_{eq})

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Construction Condition: Demolition (all Project components)			
Source 1: Concrete Saw – sound level (dBA) at 50 feet =	90	20%	83.0
Source 2: Tractor – sound level (dBA) at 50 feet =	84	40%	80.0
Source 2: Excavator – sound level (dBA) at 50 feet =	81	40%	77.0
Calculated Data			
All Sources Combined – L_{max} sound level (dBA) at 50 feet =			91 L_{max}
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =			85 L_{eq}

Distance between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
25	6	97	91
50	0	91	85
100	-6	85	79
150	-10	82	76
215	**-13**	**79**	**73**
250	-14	77	71
300	-16	76	70
400	-18	73	67
500	-20	71	65
1,000	-26	65	59

Source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: https://www.fhwa.dot.gov/ENVIRonment/noise/construction_noise/rcnm/rcnm.pdf. Accessed: May 18, 2021.

- Geometric attenuation based on a 6 dB per doubling of distance.
- This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.
- Noise levels are based on source noise levels from the FHWA Roadway Construction Noise Model.
- **Bold** denotes distance and sound levels from Jefferson Park to the nearest school.

In addition to the impact related to construction noise increases over the ambient noise level, construction activities that occur during the non-exempt hours on weekdays or any time on the weekend would not be considered exempt; noise generated during non-exempt hours must be compared to the applicable Menlo Park Municipal Code limits on noise, including the 60 dBA L_{eq} threshold during the hours of 7:00 a.m. to 10:00 p.m. and the 50 dBA L_{eq} threshold during the hours of 10:00 p.m. to 7:00 a.m.

Based on the estimated combined construction noise levels shown in Table 3.4-8, above (i.e., 73 dBA L_{eq} at the nearby school, 215 feet from the Jefferson Park site), because it is unknown at this time the precise activities that would occur outside of daytime hours, construction during non-exempt hours may result in noise levels in excess of the quantitative thresholds. In addition, based on the existing ambient noise levels at the nearby school (shown in Table 3.4-4, with a lowest nighttime L_{eq} noise level of 50.2 dBA L_{eq} and a highest daytime L_{eq} noise level of 59 dBA L_{eq}), it is possible that a 10 dB increase over the ambient noise level could occur during exempt and non-exempt hours.

In conclusion, because construction noise during the daytime hours of 8:00 a.m. to 6:00 p.m. could result in a 10 dB increase over the ambient level at nearby receptors, and because construction noise outside of these hours could result in a 10 dB increase over ambient or an exceedance of the applicable 50 dBA and 60 dBA non-daytime and daytime noise thresholds, respectively, Project construction noise impacts during daytime and non-daytime hours (i.e., prior to 8:00 a.m.) would be considered potentially significant.

MITIGATION MEASURES. Compliance with ConnectMenlo EIR Mitigation Measure NOISE-1c would help to ensure that construction activity associated with the Proposed Project would comply with the Menlo Park Municipal Code and regulations pertaining to construction noise, as feasible. However, the Proposed Project may deviate from the hour restrictions contained in this mitigation measure, which could result in a potentially significant impact even with implementation of Connect Menlo Mitigation Measure NOISE-1c. Therefore, Project Mitigation Measure NOI-1.1 (specific to the Project), described below, is also required to ensure that construction activities would comply with the applicable construction noise requirements of the City. Specifically, construction noise during daytime hours would be limited such that a 10 dB increase over the ambient noise level would not occur at the nearest sensitive land uses (i.e., Tide Academy). As noted above, an increase of approximately 15 dB could occur at the Tide Academy, and thus the noise control measures outlined in Mitigation Measure NOI-1.1 would be required to attain 5 dBA attenuation, such that the increase is only 10 dB. The noise levels presented in this section are estimates and actual noise levels present at the Project site during construction will be measured to determine the specific control measures needed. As indicated in Mitigation Measure NOI-1.1, the effectiveness of noise attenuation measures shall be monitored by taking noise measurements at nearby noise-sensitive land uses during construction. As such, Mitigation Measures NOI-1.1 requires that the noise increase would not exceed 10 dB at Tide Academy. In addition, construction occurring outside ordinary daytime construction hours (i.e., 8:00 a.m. to 6:00 p.m. weekdays) would either not be allowed or required to comply with the applicable noise threshold of an increase no greater than 10 dB over the ambient level and quantitative limits of 60 dBA L_{eq} between 7:00 a.m. and 10:00 p.m., and 50 dBA L_{eq} between 10:00 p.m. and 7:00 a.m. at the nearest sensitive land use during specified days and times.

With implementation of ConnectMenlo Mitigation Measure NOISE-1c and Project Mitigation Measure NOI-1.1, Project construction would not be expected to violate relevant requirements related to construction noise in Menlo Park. Impacts related to construction noise would be ***less than significant with mitigation***.

NOISE-1c *(Modified ConnectMenlo EIR Mitigation Measure) Construction Noise Reduction.* Project applicants shall minimize the exposure of nearby properties to excessive noise levels from construction-related activity through CEQA review, conditions of approval, and/or enforcement of the City's Noise Ordinance. Prior to issuance of demolition, grading, and/or building permits for development projects, a note shall be provided on development plans, indicating that during ongoing grading, demolition, and construction the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise:

- All internal-combustion engines on construction equipment and trucks shall be fitted with properly maintained mufflers, air intake silencers, and/or engine shrouds that are no less effective than those originally supplied by the manufacturer;
- Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses;
- Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors;

- Unnecessary engine idling shall be limited to the extent feasible;
- The use of public address systems shall be limited; and
- Construction traffic shall be limited to the haul routes established by the City of Menlo Park.

NOI-1.1 Implement Noise Control Plan to Reduce Construction Noise. The Project Sponsor shall develop a noise control plan for construction at the Project site. The plan shall require compliance with Section 8.06 of the Menlo Park Municipal Code and include measures to ensure compliance with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. and the 50 dBA L_{eq} limit during the hours of 6:00 a.m. to 7:00 a.m. In addition, the plan shall include measures to ensure that construction noise will not result in a 10 dB increase over the ambient noise level at nearby sensitive receptors (i.e., Tide Academy). The plan shall provide that no construction activities shall occur during nighttime hours of 10:00 p.m. to 7:00 a.m. daily; furthermore, no construction activities shall occur on Saturdays, other than between the hours of 8:00 a.m. to 5:00 p.m., or at any time on Sundays or any holiday, as defined at Section 8.06.020 (7) of the Noise Ordinance.

The plan shall specify the noise-reducing construction practices that will be employed to reduce noise from construction activities in Menlo Park and shall demonstrate that compliance with these standards will be achievable. The measures specified by the Project Sponsor shall be reviewed and approved by the City prior to issuance of building permits. Measures to reduce noise may include, but are not limited to, the following:

- The noise control plan shall demonstrate that noise levels during construction on the Project site will meet the standards of this mitigation measure at sensitive receptors while those receptors are in use.
- The noise control plan shall demonstrate that any construction activities taking place outside of normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday shall comply with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. and the 50 dBA L_{eq} limit during the hours of 6:00 a.m. to 7:00 a.m. In addition, the plan shall demonstrate that individual equipment proposed for use would not exceed the 85 dBA L_{eq} at 50 feet limit for powered equipment noise and that combined construction noise would not result in a 10 dBA increase over the ambient noise level at nearby sensitive receptors. Activities that would produce noise above applicable daytime or nighttime limits shall be scheduled only during normal construction hours.
- The contractor shall ensure that construction equipment will be equipped with mufflers. In addition, construction equipment must use the best available noise control techniques (e.g., improved mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields, shrouds) on equipment and trucks used for Project construction.
- All construction activities shall be conducted only at an adequate distance, or otherwise shielded with sound barriers, as determined in the noise control plan, from noise-sensitive receptors when working outside the normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday to ensure compliance with the Menlo Park Municipal Code and this mitigation measure.

- Stationary noise sources, such as temporary generators, shall be located at an adequate distance, or otherwise shielded with sound barriers, as determined in the noise control plan, from sensitive receptors to ensure compliance with the Menlo Park Municipal Code and this mitigation measure. Stationary noise sources shall be muffled and placed within temporary enclosures or shielded by barriers or other measures.
- Temporary noise barriers (height to be determined) shall be installed around construction on the Project site to reduce construction noise from equipment used outside the normal construction hours of 8:00 a.m. to 6:00 p.m. on weekdays. The installation of barriers would help reduce overall construction noise to less than 50 dBA L_{eq} for work occurring between 6:00 a.m. and 7:00 a.m. and 60 dBA L_{eq} for work occurring between 7:00 a.m. and 8:00 a.m., as measured at the applicable property lines of the adjacent uses, such that a 10 dB increase over ambient would not occur at nearby sensitive land uses. However, confirmation of the noise reduction would be required (per the last bullet of this measure, below). If the Project Sponsor can demonstrate, through an acoustical analysis, that construction noise would not exceed the allowable limits during non-exempt hours, as measured at the applicable property lines of the adjacent uses without barriers, then temporary noise barriers shall not be required.
- Trucks shall be prohibited from idling along streets serving the construction site.
- Radios or other forms of amplified music shall be prohibited on the construction site.
- The effectiveness of noise attenuation measures shall be monitored by taking noise measurements during construction activities to ensure compliance with the 50 and 60 dBA L_{eq} standards, which apply outside the normal daytime construction hours in Menlo Park of 8:00 a.m. and 6:00 p.m. Monday through Friday.
- The effectiveness of noise attenuation measures shall be monitored by taking noise measurements at nearby noise-sensitive land uses during construction to ensure compliance with the threshold (i.e., 10 dB increase over ambient).

Operations – Traffic

Potential traffic noise impacts from plan development were analyzed in the ConnectMenlo EIR. The Proposed Project could result in increased traffic noise at certain locations because of changes in roadway configuration and the potential for an increased number of vehicle trips compared with the number assumed in the ConnectMenlo EIR transportation analysis.

As discussed in Section 3.1, *Transportation*, implementation of the Proposed Project would result in an increase in traffic in the vicinity of the Project site. To determine if the Proposed Project would result in a substantial permanent increase in traffic noise levels, traffic data provided by Kittelson & Associates, in the form of hourly turning movement data, were converted into segment traffic volumes. Traffic volumes for existing and existing Plus-Project conditions were compared to determine if traffic increases associated with the Proposed Project would result in significant traffic noise impacts.

Estimates of traffic noise increases can be based on a ratio analysis that compares existing traffic volumes to existing Plus-Project traffic volumes. For example, a doubling of traffic (e.g., from 100 to 200 vehicles on a given segment) would result in a 3 dBA change in the noise level. In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases, respectively.

Most segments analyzed in the traffic noise analysis would experience a 0 to 1 percent Project-related increase in traffic volumes, with many experiencing no increase at all as a result of the Project. However, some segments would experience a 2 to 61 percent increase in traffic as a result of the Project. A 61 percent increase in traffic would occur along Jefferson Street, southeast of Chrysler Driver. This equates to an increase in traffic noise of approximately 2 dB. However, this is below the "barely perceptible" 3 dB level. Traffic noise impacts are considered significant if an increase in noise of 3 dB or more is expected to occur. Therefore, Project-related traffic increases would not result in a perceptible increase in traffic noise along analyzed roadway segments.

Table 3.4-9 presents a summary of the traffic noise ratio analysis. The table shows only modeling results for segments with Project-related increases in traffic of 5 percent or more, which correlates to an increase in traffic noise of less than 0.2 dB. Any increase in traffic of less than 25 percent correlates to an increase in traffic noise of less than 1 dB, noting that a 3 dB increase in noise is necessary before an increase is considered to be "barely perceptible." Refer to Appendix 3.4 for the full results of the traffic noise analysis.

Table 3.4-9. Traffic Volume Increases Associated with Project Trips

	Average Daily Traffic Volumes			
Roadway Segment	**Existing ADT**	**Existing plus Project ADT**	**Percentage Increase from Proposed Project**	**Approximate dB Increase from Project Implementation**
Bay Road north of Marsh Road	1,300	1,370	5%	0.2
Bayfront Expressway north of Chrysler Drive	41,920	44,300	6%	0.2
Bayfront Expressway south of Marsh Road	43,060	45,440	6%	0.2
Chilco Street east of Constitution Drive	9,520	10,800	13%	0.5
Chilco Street west of Bayfront Expressway	8,140	9,420	16%	0.6
Chrysler Drive east of Constitution Drive	10,130	12,510	23%	0.9
Chrysler Drive east of Jefferson Drive	5,950	8,630	45%	1.6
Chrysler Drive west of Bayfront Expressway	8,270	10,650	29%	1.1
Chrysler Drive west of Constitution Drive	6,560	9,240	41%	1.5
Chrysler Drive west of Independence	2,120	2,480	17%	0.7
Constitution Drive north of Chilco	5,650	7,110	26%	1.0
Constitution Drive north of Chrysler Drive	3,970	4,270	8%	0.3
Independence Drive north of Chrysler Drive	4,040	4,240	5%	0.2
Jefferson Drive south Chrysler Drive	4,680	7,520	61%	2.1
Marsh Road east of US 101	30,860	32,400	5%	0.2
Marsh Road west of Bayfront Expressway	41,140	43,160	5%	0.2

Source: Kittelson & Associates, Inc. Refer to Appendix 3.4.

Note:

Daily traffic volumes have been calculated by taking the p.m. peak-hour volumes and multiplying by a factor of 10, based on guidance from the traffic engineer who evaluated the Proposed Project.

Traffic noise increases attributable to traffic of the Proposed Project would range from 0 to 2 dB along analyzed roadway segments. A change of 3 dB is considered barely noticeable; a traffic noise increase of less than 3 dB would not be considered a significant impact. Because traffic noise increases resulting from the Proposed Project would not exceed 3 dB along any analyzed roadway segment, with the largest estimated increase being 2 dB, traffic noise impacts of the Proposed Project would be ***less than significant***.

Operations – Other Operational Noise Sources

Other potential sources of Project-related operational noise include mechanical equipment, such as HVAC equipment or emergency generators; activity at the proposed park; loading dock activity; and parking structure activity.

HVAC Equipment. The Proposed Project would include the operation of HVAC units. The adjacent office and warehousing uses could be exposed to noise from this equipment; however, these uses are not considered sensitive receptors. The closest noise-sensitive receptors are the residences approximately 650 feet south of the proposed Building 3 and the TIDE Academy approximately 400 feet west of the proposed Building 3. Although the exact sizes and locations of the proposed HVAC systems are unknown at this time, it is known that all HVAC equipment would be roof mounted and located behind a mechanical enclosure, sized appropriately to conceal the equipment. Noise from HVAC equipment can vary, depending on the type and size of the equipment. A typical air-handling/HVAC unit with condensing units and fans can generate sound levels in the range of 70 to 75 dBA at 50 feet.[3] Given the distances to the existing sensitive receptors, noise from the HVAC systems would be reduced from 75 dBA to approximately 51 dBA at a distance of 400 feet and 47 dBA at a distance of 650 feet, without accounting for shielding from intervening buildings, such as the two existing onsite buildings and the proposed 11-foot-high metal enclosure. Shielding would be expected to reduce this noise level even further. However, it is expected that noise levels from HVAC equipment would have the potential to exceed the City's allowable noise level of 50 dBA L_{eq} at 50 feet for roof-mounted equipment. Therefore, because it is possible that noise from multiple units could combine, noise impacts from Project HVAC equipment noise would be considered potentially significant.

Emergency Generator. The Project would also include one approximately 400-kilowatt (kW) emergency generator, which would create temporary and periodic noise during testing and use during an emergency. Emergency generators, such as the one proposed for the Project site, would operate only during emergencies, except for intermittent testing to ensure the equipment is in proper working order. It is expected that the generator would be tested once a month over a period of approximately 15 minutes. The specific make and model of the proposed emergency generator is not known at this time; however, noise from a generator used for similar projects can be used for analysis. For example, a Cummins 450 kW generator (model 450DFEJ) could result in an unshielded noise level of approximately 101.5 dBA at a distance of 50 feet from the generator, without accounting for attenuation from intervening shielding, a generator enclosure, or exhaust mufflers.[4]

The proposed generator would be located at grade in the northern portion of the Project area (north of Building 3) and in a solid enclosure. The nearest residence is south of the Project site and more than 850 feet from the proposed generator location. At that distance, noise would be reduced to approximately 77 dB, without accounting for shielding from intervening buildings or the generator enclosure. Note that multiple buildings and US 101 are located between the proposed generator location and the nearest

[3] Hoover and Keith. 2000. *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*. Houston, TX.

[4] Cummins Power Suite. 2019. *Sound Data for 450DFEJ 60 Hz Diesel Generator*.

homes. With the line of sight fully blocked, noise would be reduced substantially (by at least 10 dB), with resulting noise levels reduced to as much as 67 dBA, based on this assumption. This estimated noise level does not account for attenuation from intervening shielding, a generator enclosure, or exhaust mufflers; therefore, generator noise levels at the nearby residences may be lower than this estimate. In addition, noise from the US 101 would largely mask generator testing noise at the nearest homes south of the freeway.

The TIDE Academy is approximately 500 feet west of the proposed generator location. At that distance, noise would be reduced to approximately 81.5 dBA, without accounting for shielding from intervening buildings. Similar to the noise levels cited above for nearby residences, this estimated noise level does not account for a generator enclosure or exhaust mufflers. This noise level also does not include attenuation from intervening building shielding between the generator location and the school, which may further reduce noise. Therefore, generator noise levels may be lower than this estimate. Because the specifics related to attenuation features (e.g., mufflers, enclosures) are not known at this time, the analysis does not consider noise reductions from such features in order to ensure a conservative analysis of generator noise at the nearby TIDE Academy. In addition, because the exact generator location has not yet been determined, the estimated noise levels are presented only as examples.

The estimated noise levels at nearby sensitive uses (e.g., the school and nearby residences) indicate that noise from generator operation during an emergency and testing could exceed the City's allowable noise level of 60 dBA L_{eq} during daytime hours and 50 dBA L_{eq} during nighttime hours. In addition, generator noise would be expected to exceed the 85 dBA limit at 50 feet for powered equipment used on a temporary, occasional, or infrequent basis.

As provided in Section 8.06.050 (b) of the Noise Ordinance, use of a generator during a power outage or other emergency is exempt from the noise limitations set forth in the Noise Ordinance. However, based on the analysis included above, noise impacts from emergency generator testing (as opposed to operation in the event of an emergency) would be considered potentially significant.

Jefferson Park Activity. The Proposed Project would redevelop an existing surface parking lot that fronts Jefferson Drive. The privately owned but publicly accessible open space, approximately 34,000 sf in area, referred to as Jefferson Park, could include a multi-use sports court, a flexible lawn area for games and other activities, and an area with accent pavers that would provide space for games and a mix of lounge and dining seating. Additional features could include a playground or other amenities. The intent is for the park to be used by the adjacent high school for physical education classes and parking; spaces would be provided for approximately 20 to 23 staff members' vehicles. During non-school hours, the park and parking area would be available to the public. According to the Project Sponsor, no sound amplification is proposed to occur at Jefferson Park; therefore, noise from the park would generally be limited to the sound of people playing or recreating at the park.

It is expected that most noise would be generated at the outdoor play area during daytime school-related activities, such as physical education classes. The nearest noise-sensitive use to the proposed park is the TIDE Academy, approximately 200 feet to the west. The Project Sponsor has offered to reserve the park for TIDE Academy's exclusive use during school hours; therefore, noise experienced at the school from park activity would be generated by the school's own students. Outside school hours, the park would be available for use by the general public. However, outside school hours, the TIDE Academy would not be as sensitive to noise. In addition, activity at the proposed park would not be expected to result in excessive noise levels at the nearest residential uses, approximately 1,000 feet south of the park and US 101, because of the distance between the park and the receptors and because noise from US 101 would be expected to be much greater than noise from intermittent activity at the park. In addition, there are numerous

intervening structures between the park and the nearest homes, which would further reduce noise. Furthermore, as provided by Section 8.28.133 of the Menlo Park Municipal Code, unless otherwise permitted by the City, no persons are allowed to remain in a park between 30 minutes after sunset and sunrise. Accordingly, activity at the park would be limited to daytime hours, times when people are less sensitive to noise, noting that people are considered more sensitive to noise during nighttime hours when they typically sleep. For these reasons, noise impacts on nearby sensitive uses from activities at Jefferson Park would be less than significant.

Loading Dock Activity. With regard to loading dock noise, Project loading docks would be located on the east side of Building 3 and more than 700 feet away from the nearest residential uses (located across US 101, a noisy freeway) and more than 800 feet from the TIDE Academy. In addition, there would be a number of intervening structures, including Building 3, between the loading docks and the nearest noise-sensitive uses; intervening structures serve to block the line of sight between noise sources and receivers and result in substantial noise attenuation. Although the adjacent office and warehousing uses could be exposed to noise from loading dock activities, these uses are not considered to be sensitive. In addition, only 15 to 25 (maximum) truck deliveries are expected to occur on a given day. Spread out over a full day, activity from 15 to 25 trucks would not be expected to result in a 3 dB (considered to be "barely perceptible") increase in hourly or daily average noise levels at the nearest noise-sensitive uses located between 700 and 800 feet from the loading dock. Therefore, because loading activities would be temporary and intermittent and would occur only during daytime hours and be located an estimated 700 to 800 feet or more from offsite noise-sensitive land uses, impacts from loading dock noise at the Project site would be less than significant.

Parking Structure Activity. Noise sources in parking areas include moving vehicles, along with doors closing, cars starting, tires squealing, car alarms sounding, and other automotive noises occurring. The nearest noise-sensitive uses are the TIDE Academy, more than 900 feet west of the proposed parking structure, and residential uses, located more than 450 feet southwest of the proposed parking structure. Intervening buildings block most of the line of sight between the parking structure and the nearby TIDE Academy, which would reduce noise from the parking structure. In addition, US 101 is located between the nearest homes and the location of the proposed parking structure. Noise from US 101 would overshadow intermittent nuisance noise from the proposed parking structure. In addition, this area is currently developed as a surface parking lot; therefore, noise from vehicle parking activities would be similar to noise under existing conditions. Although parking area noise is difficult to predict because of many variables (e.g., parking structure design, the number of vehicles moving through the structure at any given time), noise from parking areas is characterized as temporary and periodic noise. Because of the distance between the parking structure and nearby sensitive land uses, as well as building shielding between the school and the proposed parking structure, and the location of US 101 between the nearest homes and the proposed parking structure, temporary and periodic noise from the parking structure would not be considered a nuisance noise effect and would result in a less than significant impact.

MITIGATION MEASURES. Compliance with Mitigation Measure NOISE-1b from the ConnectMenlo EIR would ensure that stationary noise sources would comply with Chapter 8.06 of the Menlo Park Municipal Code. However, modeling indicates that noise from HVAC equipment and emergency generator testing could be in excess of applicable thresholds. Therefore, Project Mitigation Measure NOI-2.1, described below, is also recommended to ensure that noise from HVAC equipment and emergency generator testing will not be in excess of applicable thresholds. Therefore, impacts from Project-related stationary sources of noise would be less than significant with mitigation.

NOISE-1b *(ConnectMenlo EIR) Stationary Noise Sources.* Stationary noise sources, as well as landscaping and maintenance activities citywide, shall comply with Chapter 8.06, Noise, of the Menlo Park Municipal Code.

NOI-2.1 *Mechanical Equipment Noise Reduction Plan.* To reduce potential noise impacts resulting from Project rooftop heating, cooling, and ventilation equipment; emergency generators; and other mechanical equipment, the Project Sponsor shall conduct a noise analysis to estimate the noise from Project-specific mechanical equipment, based on the selected equipment models and design features, and create a Noise Reduction Plan to ensure that the noise levels from roof-mounted equipment, once installed, are below the applicable criterion of 50 dBA L_{eq} at 50 feet in the city and that noise levels from the emergency generator (during testing) are below the City's allowable noise level of 60 dBA L_{eq} threshold during daytime hours, 50 dBA L_{eq} threshold during nighttime hours, and the 85 dBA limit at 50 feet for powered equipment used on a temporary, occasional, or infrequent basis.

The analysis shall demonstrate that potential noise levels resulting from Project mechanical equipment can be reduced to less-than-significant levels, and the Noise Reduction Plan shall be created to implement the required noise reduction measures. Feasible methods to reduce noise below the significance threshold include, but are not limited to, selecting quieter equipment, utilizing silencers and acoustical equipment at vent openings, siting equipment farther from the roofline, and/or enclosing all equipment in a mechanical equipment room designed to reduce noise. This analysis shall be conducted by, and the results and final Noise Reduction Plan shall be provided to, the City prior to the issuance of building permits.

The analysis and plan shall be prepared by persons qualified in acoustical analysis and/or engineering and demonstrate with reasonable certainty that the rooftop mechanical equipment selected for the Project, including the attenuation features incorporated into the Project design, will not result in noise levels in excess of 50 dBA L_{eq} at a distance of 50 feet. In addition, the analysis and plan shall demonstrate that noise from the testing of the emergency generator will not result in noise levels in excess of 60 dBA L_{eq} during daytime hours, 50 dBA L_{eq} during nighttime hours, or 85 dBA at a distance of 50 feet.

The Project Sponsor shall incorporate all methods necessary to reduce the noise identified above, as well as any other feasible recommendations from the acoustical analysis and Noise Reduction Plan, into building designs and operations to ensure that noise sources meet the applicable requirements of the respective noise ordinances at receiving properties.

Cumulative Impacts

Impact C-NOI-1: The Proposed Project in combination with other foreseeable projects would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. (LTS/M)

Construction Noise

Construction noise is a localized impact that reduces as distance from the noise source increases. In addition, intervening features (e.g., buildings) between construction areas and nearby noise-sensitive uses result in additional noise attenuation by providing barriers that break the line of sight between noise-generating equipment and sensitive receptors. These barriers can block sound wave propagation and somewhat reduce noise at a given receiver.

For the Proposed Project, the nearest cumulative projects are 165 Jefferson Drive (Menlo Flats), 141 Jefferson Drive (Menlo Uptown), and 150 Jefferson Drive (TIDE Academy). Construction at 150 Jefferson Drive is currently under way and it is possible that this project could still be under construction during construction of the Proposed Project. In addition, it is possible that 141 and 165 Jefferson Drive could be constructed concurrently with the Proposed Project.

Although most Project construction activities would occur during the exempt daytime hours of 8:00 a.m. to 6:00 p.m. Monday through Friday, and thus are not subject to the daytime noise limitations set forth in the Noise Ordinance pursuant to Section 8.06.040(a), some Project construction activities could occur during hours on a weekday beyond the exempt daytime hours or anytime on the weekend. In addition, construction for nearby cumulative projects would most likely occur during exempt daytime hours, though, some construction activities could occur beyond the exempt daytime hours on a weekday or on a weekend. Construction occurring during daytime hours could result in a 10 dB increase over the ambient noise level at nearby receptors before mitigation. Similarly, construction of other cumulative projects may also result in a substantial temporary increase in noise levels at nearby sensitive receptors. As a result of the threshold (10 dB increase over ambient), cumulative construction noise impacts from the Project and cumulative projects during daytime hours (i.e., 8:00 a.m. to 6:00 p.m., Monday through Friday) would be potentially significant. In addition, construction of the Proposed Project and cumulative projects that takes place during non-exempt hours could combine to expose a given receptor to greater noise levels than those that would be experienced from construction of one project alone and could exceed the allowable daytime (i.e., 7:00 a.m. to 10:00 p.m.) noise level of 60 dBA at nearby noise-sensitive land uses, the allowable nighttime (i.e., 10:00 p.m. to 7:00 a.m.) noise level of 50 dBA at nearby sensitive land uses, or the allowable threshold (10 dB increase over ambient). Therefore, cumulative construction-related noise impacts outside of the standard daytime hours of 8:00 a.m. to 6:00 p.m. would also be considered significant.

Because Project construction noise alone during non-exempt hours could also exceed 50 dBA at nearby noise-sensitive land uses during daytime hours (i.e., 7:00 a.m. to 10:00 p.m.) or 60 dBA at nearby noise-sensitive land uses during nighttime hours (i.e., 10:00 p.m. to 7:00 a.m.) or result in a 10 dB increase over the ambient noise level, the Project's contribution to the cumulative construction noise impact during non-daytime hours would be cumulatively considerable. Similarly, because Project construction could result in an increase in noise of 10 dB over ambient at nearby sensitive receptors during daytime hours, the Project's contribution to the cumulative construction noise impact during daytime hours would also be cumulatively considerable.

ConnectMenlo EIR Mitigation Measure NOISE-1c would be required for all projects and would help ensure that construction activity associated with the Project would comply with the Menlo Park Municipal Code and regulations pertaining to construction noise. However, construction noise impacts for some projects (including the Proposed Project) may not be reduced to less-than-significant levels with implementation of this mitigation measure. Therefore, cumulative impacts related to construction noise would be potentially significant. Regarding the Project's contribution to this cumulative impact, compliance with ConnectMenlo Mitigation Measure NOISE-1c and Project Mitigation Measure NOI-1.1 would reduce the Project's contribution to a potentially significant cumulative construction noise impact and that construction noise from the Project would be in compliance with the allowable limits during both daytime and non-daytime hours. Therefore, with the implementation of mitigation, the Project's contribution to this cumulative impact would be ***less than cumulatively considerable with mitigation***.

Operations – Traffic

To determine potential cumulative noise impacts in the Project area, vehicular traffic volumes from the existing scenario were compared to vehicular traffic volumes from the cumulative (with-Project) scenario. For vehicular traffic noise impacts in areas where the existing and resulting (under cumulative conditions)

noise levels do not exceed the "normally acceptable" land use compatibility standard, an increase of more than 5 dB is considered a significant cumulative traffic noise increase. In areas where the existing or resulting noise levels do exceed the "normally acceptable" level, based on the land use compatibility chart, a 3 dB or larger increase is considered a significant cumulative traffic noise increase.

If a cumulative impact is identified, then the Proposed Project's contribution to that impact must be assessed to determine if it would contribute 3 dB or more to the overall increase. If it would contribute 3 dB or more to the overall increase (considered a "barely perceptible" increase), the Project's cumulatively considerable contribution to the cumulative impact would be considered significant.

Estimates of traffic volumes for existing (No-Project) and cumulative Plus-Project conditions were based on the ratio analysis methodology described previously. For example, a doubling of traffic (e.g., from 100 to 200 vehicles on a given segment) would result in a 3 dBA change in the noise level. Table 3.4-10 shows the ratio analysis results for roadway segments that would experience at least a 5 percent increase from Cumulative No-Project to Cumulative Plus-Project conditions. Cumulative increases from existing to cumulative Plus-Project conditions would be between 17 and 96 percent for the segments included below in Table 3.4-10, resulting in an increase from existing to cumulative Plus-Project conditions that would be between 0.7 and 2.9 dB. Therefore, because an increase of up to approximately 3 dB (with rounding) would occur along some roadway segments, cumulative traffic noise impacts would be considered significant.

The Project contribution to the aforementioned increases can be determined by conducting a ratio analysis between cumulative No-Project and cumulative Plus-Project conditions. This calculation would provide the Project's contribution to the cumulative increase. The largest Project-related increase would be a 50 percent increase, which would correlate to an approximately 1.8 dB increase in noise. Project-related increases in the cumulative condition would be less than 3 dB for all analyzed segments. Therefore, although significant cumulative traffic noise impacts were identified, the Project's contribution to cumulative traffic noise impacts would be not be cumulatively considerable. Therefore, this impact would be ***less than significant***.

Operations – Other Operational Noise Sources

In general, it is possible that noise from mechanical equipment at cumulative projects near a given project site could combine and result in a cumulative noise impact on a receptor located between the given project site and cumulative project sites. For the Proposed Project, the nearest cumulative projects that may have stationary-source noise (i.e., mechanical equipment) during operation are 165 Jefferson Drive (Menlo Flats), 141 Jefferson Drive (Menlo Uptown), and 150 Jefferson Drive (TIDE Academy). In theory, the noise-sensitive uses near these projects could be exposed to noise from stationary sources (e.g., HVAC equipment) at multiple projects at the same time. Note that most residential receptors are located south of these project sites. Noise from cumulative projects would be unlikely to combine at the nearest residential receptor. However, the existing TIDE Academy campus is located between the Project site and the sites for Menlo Uptown and the expanded TIDE Academy campus. Therefore, HVAC equipment from multiple projects could, in theory, be audible at the same receptor. Note that it is very unlikely that the testing of an emergency generator for the Proposed Project would occur concurrently with the testing of a generator at a nearby project; therefore, cumulative operational impacts from stationary sources associated with the Project would be limited to those associated with HVAC equipment.

Table 3.4-10. Traffic Volume Increases Associated with Project Trips

Roadway Segment	Average Daily Traffic Volumes: Existing ADT	Average Daily Traffic Volumes: Cumulative ADT	Average Daily Traffic Volumes: Cumulative plus Project ADT	Increase (%) from Existing to Cumulative plus Project	Cumulative Noise Increase (Existing vs. Cumulative plus Project)	Percentage Increase from Cumulative to Cumulative plus Project	Increase (dB) from Project Contribution (Cumulative vs. Cumulative plus Project)
Chilco Street east of Constitution Drive	9,520	17,330	18,570	95%	2.9	7%	0.3
Chilco Street west of Bayfront Expressway	8,140	12,600	13,840	70%	2.3	10%	0.4
Chrysler Drive east of Constitution Drive	10,130	17,580	19,870	96%	2.9	13%	0.5
Chrysler Drive east of Independence	4,450	4,890	5,200	17%	0.7	6%	0.3
Chrysler Drive east of Jefferson Drive	5,950	8,140	10,720	80%	2.6	32%	1.2
Chrysler Drive west of Bayfront Expressway	8,270	13,130	15,420	86%	2.7	17%	0.7
Chrysler Drive west of Constitution Drive	6,560	8,850	11,430	74%	2.4	29%	1.1
Chrysler Drive west of Independence	2,120	2,570	3,070	45%	1.6	19%	0.8
Chrysler Drive west of Jefferson Drive	5,030	6,310	6,620	32%	1.2	5%	0.2
Constitution Drive north of Chilco	5,650	8,620	10,040	78%	2.5	16%	0.7
Jefferson Drive south Chrysler Drive	4,680	5,730	8,620	84%	2.7	50%	1.8

Source: Kittelson & Associates, Inc. Refer to Appendix 3.4.

Note:

Daily traffic volumes have been calculated by multiplying the p.m. peak-hour volumes by 10, based on guidance from the traffic engineer who evaluated the Proposed Project.

Because Project HVAC noise modeling indicated that noise from Project HVAC equipment could be in excess of applicable thresholds, and because it is possible that noise from stationary sources of noise at cumulative projects could also exceed thresholds, noise from equipment at cumulative projects and the Proposed Project could combine to result in greater overall noise levels at a nearby noise-sensitive receptor. Cumulative impacts related to stationary sources of noise would be potentially significant. Because estimated Project noise levels from HVAC equipment would have the potential to exceed thresholds at the nearby TIDE Academy, the Project's contribution to this impact would be cumulatively considerable.

Implementation of Mitigation Measure NOISE-1b from the ConnectMenlo EIR would ensure that stationary noise sources associated with the Project would comply with Chapter 8.06 of the Menlo Park Municipal Code. However, modeling indicates that noise from HVAC equipment and emergency generator testing could be in excess of applicable thresholds. Thus, Project Measure NOI-2.1 (specific to the Project) is expected to ensure that noise from HVAC equipment and emergency generator testing will not be in excess of applicable thresholds. As a result, compliance with ConnectMenlo Mitigation Measure NOISE-1b and Project Mitigation Measure NOI-2.1 is expected to reduce the cumulative impact to less-than-significant levels and ensure that the Project's contribution to a potentially significant cumulative construction noise impact would be ***less than cumulatively considerable with mitigation.***

3.5 Population and Housing

This section provides background information regarding existing and projected population, employment, and housing conditions in Menlo Park. In addition, it estimates changes to the city's demographics that would result from the Proposed Project. The analysis is based on population, employment, and housing data published by the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC),[1] incorporating buildout assumed under the General Plan and M-2 Area Zoning Update (ConnectMenlo) as well as demographic information from the Demographic Research Unit of the California Department of Finance (DOF), the U.S. Census Bureau, and the 2015–2023 Housing Element of the City of Menlo Park (City) General Plan.

The analysis also incorporates information from the Housing Needs Analysis (HNA) for the Proposed Project prepared by Keyser Marston Associates (Appendix 3.5).[2] Although not required by the California Environmental Quality Act (CEQA), the HNA was prepared pursuant to the terms of the settlement agreement between the cities of Menlo Park and East Palo Alto (refer to Chapters 1 and 3 for additional discussion). The information in the HNA is used to provide context for the evaluation of potential impacts of the Proposed Project related to population and housing as well as information to decision-makers during the entitlement process.

The purpose of this section is to characterize the potential for Project–induced population, housing, and employment changes to trigger physical environmental effects; these potential environmental impacts are examined further in other sections of this environmental impact report (EIR) (e.g., Sections 3.1, *Transportation and Traffic*; 3.2, *Air Quality*; and 3.4, *Noise*).

Issues identified in response to the Notice of Preparation (NOP) (Appendix 1-2) were considered in preparing this analysis. The comments pertained to preparing an HNA (focusing on the multiplier effect and displacement) and including an analysis of indirect population growth induced by employment resulting from the Proposed Project.

Existing Conditions

Environmental Setting

The following discussion provides a basic foundation for understanding population and housing issues within Menlo Park as well as the region. The information presented in this section is based on data, research, and growth projections drawn from census data, the HNA prepared for the Proposed Project, and ABAG's *Plan Bay Area, Projections 2040*.

Population

Menlo Park is in the southern portion of San Mateo County and bounded by San Francisco Bay to the north, East Palo Alto to the east, Palo Alto to the east and south, Woodside and the Portola Valley to the southwest, and Redwood City to the west. The city encompasses approximately 19 square miles, including nearly 12 square miles of San Francisco Bay and wetlands. The city's jurisdictional population was estimated to be 35,254 as of January 1, 2020. The California DOF estimates that the city currently averages

[1] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area, Projections 2040*. November.

[2] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. July.

approximately 2.64 persons per household (pph).[3] Table 3.5-1 presents population estimates and projections for 2020 through 2040[4] pertaining to Menlo Park (sphere of influence),[5] San Mateo County, and the Bay Area (i.e., Marin, Sonoma, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo, and San Francisco Counties). The data indicate that population growth, measured as the percentage increase from 2020 to 2040, in Menlo Park (23.3 percent) will be greater than that of the county and the Bay Area as a whole (about 15.0 and 21.9 percent, respectively).[6]

Table 3.5-1. Population Trends in Menlo Park, San Mateo County, and the Bay Area, 2020–2040

	2020	2030	2040	Growth (2020–2040)
Menlo Park	44,530	52,865	54,920	10,390 (23.3%)
San Mateo County	796,925	853,260	916,590	119,665 (15.0%)
Bay Area	7,920,230	8,689,440	9,652,950	1,732,720 (21.9%)

Source: ABAG and MTC, 2018.

Housing

According to the California DOF, the estimated number of housing units in the city (jurisdictional boundary) as of January 1, 2020, was 14,082, with an average household size of 2.64 pph and a vacancy rate of 7.1 percent.[7] Table 3.5-2 presents ABAG projections for households in the Bay Area, the county, and the city between 2020 and 2040. According to ABAG, the number of households in the county is projected to grow from approximately 284,260 in 2020 to 317,965 in 2040, an increase of approximately 11.9 percent. The number of households in the city is projected to grow from approximately 15,390 in 2020 to 17,680 in 2040, an increase of approximately 14.9 percent. Overall, the household growth rate in the city (14.9 percent) is expected to be greater than the household growth rate for the county (11.9 percent) but less than that of the Bay Area as a whole (18.9 percent).[8]

[3] California Department of Finance. 2020. *E-5 City/County Population and Housing Estimates*. Table 2. Available: https://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/php. Accessed: March 24, 2021.

[4] Full buildout of the Proposed Project is expected to occur in 2024. However, consistent with full buildout of ConnectMenlo by 2040, this analysis compares the Proposed Project with the projections for 2040. In addition, ABAG projections assume that the majority of the ConnectMenlo growth would occur between 2035 and 2040. Therefore, to account for all growth under ConnectMenlo in the ABAG projections, a horizon year of 2040 is used in this analysis.

[5] Several additional unincorporated areas adjoining the city are recognized as being within the city's sphere of influence and, therefore, included in the City General Plan. In California, *sphere of influenc*e has a legal meaning (i.e., a plan for the probable physical boundaries and service area of a local agency). Spheres of influence at California local agencies are regulated by Local Agency Formation Commissions, which recognize the unincorporated communities that would be best and most likely served by the city agencies. Hence, the spheres of influence represent areas with the greatest potential for annexation by a city. In most cases, ABAG provides more detailed demographic and employment projections for a city's sphere of influence than for small cities such as Menlo Park. Consequently, unless otherwise specifically noted, all city data represent the city sphere of influence because only limited demographic data are available for the city's incorporated area. The sphere of influence designation for the city includes unincorporated West Menlo Park, Stanford Weekend Acres, and Menlo Oaks as well as the Stanford Linear Accelerator Center. With the exception of the Stanford Linear Accelerator Center, these areas are zoned residential and substantially developed. All ABAG projections for the city in this section include the sphere of influence.

[6] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area, Projections 2040*. November.

[7] California Department of Finance. 2020. *E-5 City/County Population and Housing Estimates*. Table 2. Available: https://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/php. Accessed: March 24, 2021.

[8] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area, Projections 2040*. November.

Table 3.5-2. Household Trends in Menlo Park, San Mateo County, and the Bay Area, 2020–2040

	2020	2030	2040	Growth (2020–2040)
Menlo Park	15,390	17,265	17,680	2,290 (14.9%)
San Mateo County	284,260	302,520	317,965	33,705 (11.9%)
Bay Area	2,881,965	3,142,015	3,426,700	544,735 (18.9%)

Source: ABAG and MTC, 2018.

Housing prices in the Bay Area are among the highest in the country, and the county has several of the most expensive residential communities in the Bay Area. Home prices in Menlo Park exceed county levels. The median single-family home price in Menlo Park from December 2019 through December 2020 was $2.35 million.[9] This represents an almost 50 percent increase since 2012 when the median single-family home price in Menlo Park was approximately $1.47 million.[10]

Employment

The employment profile for an area provides an indication of the composition of an area's economy as well as present and future demand for employees. Employment growth is an important driver of housing demand, both at the local level and regionally. Employment growth over the past several years has most likely contributed to significant upward pressure on the housing market, as evidenced in rent and price increases.

The county is a productive economic area, led by the technology, bioscience, and service industries. According to the HNA, the county averages approximately 1.91 employees per worker household.[11] Approximately 66 percent of Menlo Park residents aged 16 and older were in the work force in 2020, slightly lower than the county rate (69 percent) but higher than the state rate (63 percent). Most city residents who are in the workforce are in management, business, science, or art-related occupations (69 percent), which is significantly higher than the county rate (47 percent) and the state rate (38 percent). The next most common employment categories for the city are sales and office occupations (14 percent), followed by service occupations (11 percent).[12]

The county was negatively affected by the housing mortgage/financial crisis of the late 2000s. However, between 2010 and 2019, approximately 591,000 jobs were added in San Mateo, Santa Clara, and San Francisco Counties. More than half of the total job growth occurred in high-wage sectors, which are generally defined as professions where average annual employee compensation is above $100,000 (as of 2016). Over the past decade, high-wage industries posted an annual job growth rate of 4.6 percent, versus 3.4 percent for all industries. The job growth rate for the longer period from the peak of the previous boom in 2000 until 2019 is less because of the significant job losses between 2000 and 2004, which offset the more recent job growth. The 2020 economic recession, caused by the coronavirus pandemic, eliminated a portion of the jobs added over the past decade and resulted in significant declines in total employment in the second quarter of 2020 in the three-county area[13]. However, between March 2021 and March 2022, the total number of jobs in the counties of San Francisco and San Mateo increased by 91,800 jobs, or 8.7 percent. The job areas

[9] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. July.
[10] City of Menlo Park. 2014. *Housing Element*. April 14.
[11] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. July.
[12] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area, Projections 2040*. November.
[13] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. July.

of professional, scientific, technical services, administrative and support services, and information all experienced gains[14]. Because the full effects of the coronavirus pandemic are currently unknown, this analysis uses the most recent projection forecasts. *Plan Bay Area, Projections 2040* predicts steady employment growth between 2020 and 2040 for the city, county, and Bay Area as a whole.

The following table presents ABAG employment projections, which are used throughout the analysis presented below. More recent employment data are available from the U.S. Census Bureau, indicating that there are currently 44,958 jobs in the city.[15] However, because the U.S. Census Bureau does not provide projections, Table 3.5-3 presents only ABAG employment projections for the city, the county, and the Bay Area.

Table 3.5-3. Employment Trends in Menlo Park, San Mateo County, and the Bay Area, 2020–2040 (Total Number of Jobs)

	2020	2030	2040	Growth (2020–2040)
Menlo Park	36,410	37,195	42,475	6,065 (16.6%)
San Mateo County	399,415	423,005	472,340	72,770 (18.2%)
Bay Area	4,136,190	4,405,125	4,698,375	562,185 (13.6%)

Source: ABAG and MTC, 2018.
ABAG's *Plan Bay Area, Projections 2040* incorporates full buildout of ConnectMenlo and the Meta Campus expansion.

As indicated in Table 3.5-3, the ABAG projections for 2020 to 2040 show a steady increase in employment in the Bay Area (13.6 percent). Both the county (18.2 percent) and the city (16.6 percent) show higher projected employment rates than the Bay Area in general.

Table 3.5-4 compares the projected number of employed residents in the city with the projected number of jobs available in the city. According to ABAG projections, the number of employed residents in the city is currently 62.4 percent of the number of jobs in the city. In the next 20 years, the number of employed residents is expected to remain relatively constant, decreasing only slightly to 61.7 percent.[16]

Table 3.5-4. Comparison of Number of Jobs to Employed Residents in Menlo Park, 2020–2040

	2020	2040
Jobs[a]	36,410	42,475
Employed Residents[a]	22,735	26,205
Percent of Employed Residents to Total Number of Jobs	62.4	61.7

Source: ABAG and MTC, 2018.
a. The number of jobs and employed residents is based on the city's sphere of influence, which also includes unincorporated areas of San Mateo County.

[14] California Employment Development Department. 2022. Press Release April 15: San Francisco-Redwood City-South San Francisco Metropolitan Division (San Francisco and San Mateo Counties). Available: https://www.labormarketinfo.edd.ca.gov/file/lfmonth/sanf$pds.pdf?msclkid=87e4ed7ccfee11ec95ab74c3ece07916. Accessed: May 9, 2022.

[15] U.S. Census Bureau. 2019. *American Community Survey, 2015–2019, Sex of Workers by Means of Transportation to Work for Workplace Geography* (2015–2019 ACS 5-year Estimates, ID B08406). Available: https://data.census.gov/cedsci/table?q=ACSDT1Y2019.B08406&g=1600000US0646870&tid=ACSDT5Y2019.B08406&hidePreview=true. Accessed: June 1, 2022.

[16] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area, Projections 2040*. November.

The average median income (AMI) in San Mateo County for a household of four is approximately $149,600.[17] Because the city's housing prices are high, many people who work in the city cannot afford to live in the city. Consequently, people who work in the community often must commute long distances. To afford the median-price home in the city ($2.35 million), a family would need to make more than $384,600 annually.[18] The difference between what the workforce and the community can pay for housing, based on household income and the prices for homes in the community, is referred to as an *affordability gap*.[19] In addition, housing production has not kept pace with job growth in San Mateo County and adjacent counties. The ratio of jobs to housing units has steadily increased in San Mateo, Santa Clara, and San Francisco Counties since 2010 when the ratio was approximately 1.35. In 2019, the jobs/housing ratio for the three counties averaged approximately 1.75. This imbalance is a factor in the increase in housing prices and rents.[20]

According to the U.S. Census Bureau 2015–2019 American Community Survey (ACS), 5.9 percent of those who currently work in Menlo Park also live in Menlo Park. That number has declined since the 2000 census, which showed that 7.2 percent of those who worked in Menlo Park lived in Menlo Park. This percentage is low compared with most other cities in the Bay Area and attributable to a range of factors, such as affordability constraints, which already limit a worker's ability to find housing within the city, and the large number of jobs in Menlo Park relative to the housing stock. Another contributing factor is the location and boundary configuration of the city, making many other jurisdictions within a short commute. Communities considered within a short commute of Menlo Park for the purposes of this analysis include those immediately surrounding Menlo Park: East Palo Alto, Woodside, Redwood City, and Palo Alto. It is estimated that of those who currently work in Menlo Park, 0.5 to 3.1 percent of live in East Palo Alto, 0.1 to 0.5 percent live in Woodside, 0.8 to 9.1 percent live in Redwood City, and 4 percent live in Palo Alto. [21]

The Project site is located within the existing Commonwealth Corporate Center property, which is currently leased to Meta. The share of Meta workers at the company's Menlo Park campuses and leased offices who also live in Menlo Park is approximately 7.4 percent,[22] slightly higher than the overall average of 5.9 percent of Menlo Park workers who both live and work in the city, per the U.S. Census Bureau. Many factors influence how people select where to live, including, but not limited to, weather; family, community, and cultural factors; housing affordability; quality of schools; access to employment; and unit type. The reasons for a somewhat higher-than-average share of Meta workers living in Menlo Park are not known; however, one possible contributing factor may be Meta's corporate housing program, under which apartments within three newer properties in Menlo Park, including the 777 Hamilton Apartments, Elan Menlo Park, and Anton Menlo near the Meta campuses, are made available to employees as temporary housing.[23]

[17] San Mateo County. 2021 *San Mateo County Income Limits as Determined by HUD, State of CA HCD, and County of San Mateo*. April. Available: https://housing.smcgov.org/sites/housing.smcgov.org/files/2021-Income-Limits-revised-042721.pdf. Accessed: February 8, 2022.

[18] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. July.

[19] City of Menlo Park. 2014. *Housing Element*. April 1.

[20] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. July.

[21] Ibid.

[22] Ibid. Based on data provided by Meta applicable to employees at its existing Menlo Park facilities as of March 2020.

[23] Ibid.

Regulatory Setting

State

State Housing Element Law. The Regional Housing Needs Allocation (RHNA) is a process established under the State Housing Element Law that requires cities in California to plan for future development of new housing units to meet their share of regional housing needs. Housing needs for each region in the state are determined by the State Department of Housing and Community Development and submitted to Councils of Government for allocation to local jurisdictions. ABAG is ultimately responsible for determining the share of the regional housing need to be met by each city in the Bay Area. State Housing Element Law has established three housing affordability categories. The categories are based on the region's median income and take into account household sizes, which range from one to six people. The three affordability categories are used by ABAG in allocating regional housing needs.

- Very Low: 0 to 50 percent of the area's median income
- Low: 51 to 80 percent of the area's median income
- Moderate: 81 to 120 percent of the area's median income

The current RHNA, approved in May 2021, identifies housing needs for the 2023 to 2031 planning period. As shown in Table 3.5-5, ABAG determined that 2,946 units (defined by income category) is Menlo Park's fair share of the regional housing need for the 2023 to 2031 period.[24] The City updated its Housing Element in April 2014 and is currently in compliance with respect to designating enough appropriately zoned land to accommodate its allocated housing units for the 2014 to 2022 RHNA reporting period. However, with adoption of the 2023 to 2031 RHNA, which incorporates the upcoming Plan Bay Area 2050, the City is in the process of updating the Housing Element for the current RHNA cycle. The 2023 to 2031 Housing Element will be submitted to the State Department of Housing and Community Development by January 2023.[25]

Table 3.5-5. ABAG Regional Housing Need Allocation for 2023-2031

Income Level	Menlo Park Need	Regional Need
Very Low	740	114,442
Low	426	65,892
Moderate	496	72,712
Subtotal of Affordable Units	*1,662*	*253,046*
Above Moderate[a]	1,284	188,130
Total	**2,946**	**441,176**

Source: ABAG, 2021.

a. Above Moderate: Households with incomes greater than 120 percent of county median family income. ABAG does not use the Above Moderate category. This category is included in the RHNA and the analysis below to provide decision-makers with more information regarding housing impacts for a broad spectrum of the new-worker households associated with the Proposed Project.

[24] Association of Bay Area Governments. 2021. *Regional Housing Need Plan for the San Francisco Bay Area: 2023–2031*. May 2021. Available: https://abag.ca.gov/our-work/housing/rhna-regional-housing-needs-allocation. Accessed: June 13, 2021.

[25] City of Menlo Park Community Development. 2021. *Staff Report Number 21-065-CC*. March 23. Available: https://www.menlopark.org/DocumentCenter/View/27669/I2-20210323-CC-Housing-element-MGroup-agree. Accessed: June 13, 2021.

Sustainable Communities Strategy and Senate Bill 375. Senate Bill (SB) 375, adopted in 2008, requires preparation of a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP) for the Bay Area. Plan Bay Area, the first SCS for the region, was jointly approved in July 2013 by ABAG and the MTC. Plan Bay Area 2040, an updated SCS for the region, was jointly approved in July 2017 by ABAG and MTC. Plan Bay Area 2040 was the strategic update to the original Plan Bay Area, approved in 2013, which represented a transportation and land use/housing strategy for how the Bay Area will address its transportation mobility and accessibility needs, land development issues, and greenhouse gas emissions reduction requirements through 2040. Plan Bay Area 2040 builds on earlier work to develop an efficient transportation network, provide more housing choices, and grow in a financially and environmentally responsible way. SB 375 requires the RHNA to be consistent with the SCS and establishes an 8-year cycle for the RHNA. The 2014 to 2022 RHNA has been incorporated into Plan Bay Area and Plan Bay Area 2040.

The draft Plan Bay Area 2050 was released in May 2021 and the Final Plan was adopted in October 2021. Plan Bay Area 2050 focuses on four key issues, the economy, the environment, housing, and transportation. This new regional plan will outline strategies for growth and investment through 2050 while simultaneously striving to meet or exceed federal and state requirements. MTC and ABAG are expected to adopt Plan Bay Area 2050 in fall 2021.[26] The 2023 to 2031 RHNA will be incorporated into Plan Bay Area 2050.

Regional

Jobs Housing Connection Strategy Methodology for Plan Bay Area. The Jobs Housing Connection Strategy was adopted by ABAG and MTC as part of Plan Bay Area in July 2013. The Jobs Housing Connection Strategy reflects the preferred land use pattern, which was selected from a series of land use alternatives and based on input from the public, cities and counties, and transportation agencies. The preferred scenario aims to concentrate growth near transit-served employment centers in the inner Bay Area. For the SCS, the methodology used for assigning household growth to local jurisdictions considered multiple factors, including housing development capacity, base housing unit growth, vehicle miles traveled/transit service adjustments, as well as other growth factors.

Local

City of Menlo Park General Plan. All California cities and counties are required to include a Housing Element in their general plans that establishes housing objectives, policies, and programs in response to community housing conditions and needs. The City updated and adopted its Housing Element on April 1, 2014, which was prepared to respond to current and near-term future housing needs in Menlo Park. The Housing Element is currently expected to be updated and finalized in 2023 to reflect the upcoming RHNA cycle.[27] The Housing Element also provides a framework for the community's longer-term approach to addressing its housing needs. The Housing Element contains goals, updated information, and strategic directions (i.e., policies and implementing actions) that the City is committed to undertaking.[28]

[26] Association of Bay Area Governments and Metropolitan Transportation Commission. 2021. *Plan Bay Area 2050.* Available: https://www.planbayarea.org/plan-bay-area-2050-1. Accessed: June 15, 2021.

[27] City of Menlo Park Community Development. 2021. *Staff Report Number 21-065-CC.* March 23. Available: https://www.menlopark.org/DocumentCenter/View/27669/I2-20210323-CC-Housing-element-MGroup-agree. Accessed: June 13, 2021.

[28] City of Menlo Park. 2014. *Housing Element*. April 1, 2014.

State Housing Element Law requires the general plan of a city to have an updated Housing Element that provides for a specified number of housing units, based on an allocation of regional housing needs. The allocation process is now set to occur every 8 years, as discussed above. ABAG is responsible for allocation in the Bay Area.

The following policies within the Housing Element of the City's General Plan are relevant to the Proposed Project:

> **Policy H1.7: Local Funding for Affordable Housing.** Seek ways to reduce housing costs for lower-income workers and people with special needs by developing ongoing local funding resources and continuing to utilize other local, state, and federal assistance to the fullest extent possible. The City will also maintain the below-market-rate housing program requirements for residential and nonresidential developments.
>
> **Policy H4.10: Inclusionary Housing Approach.** Require residential developments involving five or more units to provide units or an in-lieu fee equivalent for very low-, low-, and moderate-income housing. The units provided through this policy are intended for permanent occupancy and must be deed restricted, including, but not limited to, single-family housing, multi-family housing, condominiums, townhouses, or land subdivisions. In addition, the City will require larger nonresidential developments, as job generators, to participate in addressing housing needs in the community through the City's commercial in-lieu fee requirements.

ConnectMenlo. ConnectMenlo, which updated the Land Use Element and Circulation Element of the Menlo Park General Plan, was adopted in November 2016. The following goal and policy from ConnectMenlo are most relevant to the Proposed Project:[29]

> **Policy LU-4.1: Priority Commercial Development.** Encourage emerging technology and entrepreneurship, and prioritize commercial development that provides fiscal benefit to the city, local job opportunities, and/or goods or services needed by the community.
>
> **Policy LU-4.4: Community Amenities.** Require mixed-use and nonresidential development of a certain minimum scale to support and contribute to programs that benefit the community and the city, including education, transit, transportation infrastructure, sustainability, neighborhood-serving amenities, child care, housing, job training, and meaningful employment for Menlo Park youth and adults.

Environmental Impacts

This section describes the impact analysis related to population and housing for the Proposed Project. It describes the methods used to determine the impacts of the Proposed Project and lists the thresholds used to conclude whether an impact would be significant. A summary of the ConnectMenlo EIR impacts and mitigation measures is then provided. As previously discussed in Chapter 1, *Introduction*, the analysis below makes reference to, and tiers from, the ConnectMenlo Final EIR, where appropriate. This section identifies potential impacts of the Proposed Project and, if necessary, mitigation measures.

[29] Menlo Park, City of. 2016. *City of Menlo Park General Plan, Land Use and Circulation Elements.* November 29. Available: https://www.menlopark.org/DocumentCenter/View/15013/Land-Use-and-Circulation-Element_adopted-112916_final_figures?bidId=. Accessed: April 14, 2021.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Proposed Project would have a significant effect if it would result in any of the conditions listed below.

- Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere

Methods for Analysis

This analysis considers whether population and household growth would occur with implementation of the Proposed Project and whether this growth would be within the forecasts for the city and/or considered substantial with respect to remaining growth potential in the city. This section uses ABAG projections to analyze the impacts of the Proposed Project.

An HNA prepared by Keyser Marston Associates (Appendix 3.5) has been applied to the analysis in the EIR.[30] U.S. Census Bureau, U.S. Bureau of Labor Statistics, and California Employment Development Department data were used in preparation of the HNA. The HNA presents the anticipated housing needs associated with the Proposed Project. Issues related to both increased demand for housing and potential increased housing unit allocations are addressed. The HNA is part of a range of analyses that will be used in the decision-making and entitlement process for the Proposed Project. Preparation of the HNA is required under the terms of the 2017 settlement agreement between Menlo Park and East Palo Alto.

Indirect or secondary impacts are those that are caused by a project and later in time or farther removed in distance but still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or the growth rate (CEQA Guidelines, Section 15358[a][2]). Specifically, growth-inducing effects include the ways in which a project could foster economic or population growth or the construction of additional housing, either directly or indirectly. Projects that would remove obstacles to population growth (e.g., a major expansion to a wastewater treatment plant) might allow development to occur in an area that was not previously considered feasible for development because of infrastructure limitations (CEQA Guidelines, Section 15126.2[d]). As such, indirect population growth is a secondary impact and considered below.

In making the translation from the estimated number of Project employees to the estimated number of housing units in demand, the analysis in the HNA and this section considers multiple-earner households. Multiple-earner households have two or more workers and take a variety of forms, such as roommates and housemates, couples, and multi-generational households. The analysis makes an adjustment to recognize that an added employee who lives in a household with one or more other workers is not responsible for creating demand for an entire additional housing unit, only a portion of an additional unit. There is no implicit assumption in the workers-per-household calculation that Project workers would live with one another. Multiple-earner households are a factor that must be recognized in the analysis, irrespective of where the other working member of the household is employed. A specific factor of 1.91 workers per worker household is the average number of workers in each working household in San Mateo County and derived from U.S. Census Bureau data (2015–2019 ACS).

[30] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. May.

Summary of Analysis in the ConnectMenlo EIR

As described in Chapter 1, *Introduction*, the ConnectMenlo EIR provided a program-level analysis of the development potential envisioned for the entire city, including the increased development potential in the Bayfront Area. The Land Use Element specifically identifies new development potential in the Bayfront Area of up to 2.3 million gross square feet (gsf) of non-residential space, 400 hotel rooms, and 4,500 residential units.[31] The ConnectMenlo EIR determined that, at full buildout, implementation of ConnectMenlo would result in an additional 11,570 residents, for a total city-wide population of 50,350, and 5,500 new employees, for a total city-wide daytime population of 53,250. The buildout potential for future development is expected to occur over a 24-year buildout horizon (from approximately 2016 to 2040).[32] This topic was analyzed in the ConnectMenlo EIR as Impact POP-1 (pages 4.11-5 to 4.11-18) and determined to be less than significant. Within the ConnectMenlo EIR study area, future development would be guided by the policy framework. No mitigation measures were recommended.

The ConnectMenlo EIR found that buildout of ConnectMenlo would not displace a substantial number of housing units or people, nor would it require the construction of replacement housing elsewhere. This topic was analyzed in the ConnectMenlo EIR as Impact POP-2 (pages 4.11-18 to 4.11-20) and POP-3 (page 4.11-20) and determined to be less than significant. Within the ConnectMenlo EIR study area, existing policies would ensure that adequate housing would remain and that the potential for any displacement of existing housing and people would be limited. No mitigation measures were recommended.

The ConnectMenlo EIR found that buildout of ConnectMenlo would result in a significant and unavoidable cumulative impact related to direct and previously unplanned population growth in the area. Buildout of ConnectMenlo would result in population and housing levels that would not be in alignment with ABAG's *Plan Bay Area, Projections 2013*. However, the City found that future ABAG projections would take into account buildout of ConnectMenlo, and Menlo Park's growth would no longer contribute to a cumulative exceedance of regional projections. Since certification of the ConnectMenlo EIR, ABAG updated its population growth projections. The most recent regional projections (*Plan Bay Area, Projections 2040*)[33] incorporate full buildout of ConnectMenlo.

Project Impacts and Mitigation Measures

Impact POP-1: Indirect Population Growth. The Proposed Project would not induce substantial population growth indirectly through job growth, nor would projected growth result in adverse direct impacts on the physical environment. (LTS)

The Project site is located within the Commonwealth Corporate Center property, which is currently leased by Meta. For purposes of this analysis, it is assumed that the tenant of the Proposed Project would continue to be Meta. The Proposed Project would include construction of 249,500 gsf of office uses, which would generate new employees at the Project site. The Proposed Project would be built out by 2024, with full occupancy by 2025. It is estimated that approximately 1,996 employees would occupy the proposed new building at full buildout. The number of employees in the existing onsite buildings would not change as a result of the Proposed Project.

[31] The ConnectMenlo Final EIR included an evaluation of 4,500 residential units in the Bayfront Area, consisting of 3,000 unrestricted residential units and 1,500 corporate dormitory-style housing units on the Meta East Campus (also known as the Classic Campus).

[32] Although the ConnectMenlo EIR assumed a buildout horizon of 2040, the maximum development potential may be reached sooner than anticipated. However, the ConnectMenlo EIR evaluated the maximum development potential that could occur at any given time and did not consider phased buildout of the development potential; therefore, no new or additional impacts are anticipated as a result of the expedited buildout.

[33] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area, Projections 2040.* November.

The ConnectMenlo EIR considered the potential impacts on unplanned population growth associated with the buildout of ConnectMenlo, including buildout of the Office land use designation, wherein the Proposed Project is located. The Proposed Project is consistent with the Office land use designation, as well as the allowed density. The additional 1,996 employees at the Project site would represent approximately 36.3 percent of the total 5,500 employees assumed under full buildout of ConnectMenlo. Although the Proposed Project would not result in onsite residential population increases, the new employees could generate the need for more housing in the city and the region, as discussed below.

Construction

Construction of the Proposed Project, including demolition, utility relocation, grading/excavation, building and parking structure construction, and finishing work, would temporarily increase construction employment. Given the relatively common nature and scale of construction associated with the Proposed Project, the demand for construction employment would most likely be met within the existing and future labor market in the city and the county. The size of the construction workforce would vary during the different phases of construction. The number of construction workers required for construction would be eight to 125 per day, depending on the work scheduled. Construction workers would come primarily from Bay Area cities and counties. Although some would commute from outside the Bay Area, because of the temporary nature of construction, workers would not be expected to relocate permanently. Therefore, impacts related to unplanned indirect population growth during construction of the Proposed Project would be less than significant.

Operation

Employment Growth. The Project site currently accommodates approximately 1,550 employees. With implementation of the Proposed Project, a total of approximately 3,546 employees would be accommodated at the Project site, a net increase of approximately 1,996 employees. As shown in Table 3.5-3, above, ABAG estimates that the number of jobs in the city's sphere of influence will grow by approximately 6,065 between 2020 and 2040. Therefore, with a net increase in the number of new jobs at the Project site at full buildout (i.e., approximately 1,996), the number of employees generated by the Proposed Project would equal approximately 32.9 percent of the anticipated employment growth in the city from 2020 to 2040, which is within the anticipated employment growth rate.[34] Therefore, the number of employees generated by the Proposed Project would not exceed ABAG projections, and the Proposed Project would not result in an increase in city population or demand for housing that would exceed ABAG projections, as explained in more detail below.

Indirect Population Growth. Operation of the Proposed Project would generate up to 1,996 new jobs at full buildout and occupancy. Using an average of 1.91 workers per household in San Mateo County, the Proposed Project would generate approximately 1,046 households.[35] On average, approximately 5.9 percent of the city's workforce both work and reside in the city; however, 7.4 percent of employees who currently work for Meta also live in Menlo Park.[36] Using these numbers, the Proposed Project could result in approximately 62[37] to 77[38] new households in the city. With an average of 2.64 pph, the Proposed

[34] The 1,996 employees generated by the Proposed Project/6,065 new jobs in the city between 2020 and 2040 × 100 = 32.9 percent of anticipated employment growth in the city's sphere of influence.

[35] 1,996 new jobs/1.91 workers per worker household = 1,046 total households.

[36] For informational purposes, the HNA also includes a goal-based commute share estimate of 20 percent, based on the 2000 Nexus Study. This would result in a demand for 68 housing units within the city. This is not reflective of existing conditions and therefore not further analyzed here. For more details, please refer to Appendix 3.5.

[37] 1,046 total households × 5.9 percent (city average) = 62 households.

[38] 1,046 total households × 7.4 percent (Meta average) = 77 households.

Project could generate approximately 164 to 204 new residents within Menlo Park. As shown in Table 3.5-1, approximately 44,530 residents lived within the city's sphere of influence in 2020. According to ABAG projections, the population is projected to increase to approximately 54,920 by 2040. This represents an increase of 10,390 residents over 20 years. The addition of up to 204 new residents in the city as a result of the Proposed Project would represent approximately 1.9 percent of the anticipated population growth within the city between 2020 and 2040.[39]

Housing Growth. As shown in Table 3.5-2, ABAG estimates that the number of households in the city's sphere of influence will grow by approximately 2,290 between 2020 and 2040. The Proposed Project could generate demand for up to 77 housing units in the city, assuming that up to 7.4 percent of employees would live in the city. Therefore, the Project-induced housing demand would equal approximately 3.4 percent of the anticipated housing growth in the city's sphere of influence between 2020 and 2040.[40]

Buildout of the Office land use designation, wherein the Proposed Project would be located, was considered as part of the growth analyzed in ConnectMenlo and accounted for in regional planning efforts and projections. The Proposed Project is consistent with the Office land use designation, as well as the allowed density. Therefore, the induced housing demand associated with buildout of the Office land use designation, including the Proposed Project in the city, county, and region was also accounted for. ConnectMenlo anticipates the construction of approximately 3,000 residential units. New residents induced by jobs at the Project site could be accommodated within this new construction. In addition, the current vacancy rate in the city, according to the California DOF, is 7.1 percent. This represents approximately 1,000 vacant units in the city.[41] The 62 to 77 housing units that would be needed to accommodate the new households generated by the Proposed Project could be accommodated by the vacant units. As such, the Proposed Project's demand for housing could be accommodated within the city's anticipated housing construction and/or vacant units.

Geographic Distribution of Housing Demand. The Proposed Project would generate a demand for 1,046 housing units in the region. As stated above, using existing Meta commute patterns, it is anticipated that up to 7.4 percent of the 1,996 employees generated by the Proposed Project would live in Menlo Park. The remaining employees would very likely find housing throughout the region, with the majority living in San Mateo, Santa Clara, and San Francisco counties. It is anticipated that between 65 and 69 percent of the new 1,996 employees at the Project site at buildout would live in Santa Clara and San Mateo Counties (680 to 722 housing units in the region). The remaining workers are anticipated to commute from San Francisco and Alameda Counties (24 to 37 percent of total workers). Approximately 4 to 7 percent of workers would commute from other counties. The cities adjacent to Menlo Park are also expected to house a percentage of the 1,996 new onsite employees, as follows (254 to 351 employees):[42]

- East Palo Alto: 0.5 to 3.1 percent (10 to 62 employees)
- Palo Alto: 4.0 percent (80 employees)
- Atherton: 0.1 to 0.9 percent (2 to 18 employees)
- Redwood City: 8.0 to 9.1 percent (160 to 181 employees)
- Woodside: 0.1 to 0.5 percent (2 to 10 employees)

[39] (up to 204 new residents in the city's sphere of influence/10,390 anticipated new residents in the city's sphere of influence between 2020 and 2040) × 100 = 1.9 percent of anticipated population growth in the city's sphere of influence.

[40] (77 units demanded by the Proposed Project/2,290 new households in the city's sphere of influence between 2020 and 2040) × 100 = 3.4 percent of anticipated housing growth in the city's sphere of influence.

[41] The 7.1 percent vacancy rate × 14,082 existing total housing units in the city as of January 1, 2020 = 1,000 vacant units in the city.

[42] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. July.

It should be noted that one employee would not necessarily equate to one housing unit because some employees would share housing with family, spouses, or roommates. ABAG projections are considered the benchmark for foreseeable housing growth (built housing) in each area. As shown in Table 3.5-2, ABAG projects that the number of households would grow by 18.9 percent in the Bay Area region, 11.9 percent in San Mateo County, and 14.9 percent in the city between 2020 and 2040. For that same period, the indirect housing demand generated by the Proposed Project would be 0.2 percent of projected household growth in the Bay Area and 3.1 percent of that in San Mateo County. On a regional basis, the Proposed Project's demand for housing would not represent a significant share of the total housing growth projected by ABAG.

Income Distribution of Housing Demand. Housing affordability is an important consideration for planning purposes. However, it is a socioeconomic issue and therefore not an environmental impact evaluated under CEQA. A shortfall in affordable units within the city is not considered a physical environmental impact. However, for informational purposes only, this subsection provides the distribution of indirect housing demand, according to affordability levels. This discussion is based on information from the HNA and RHNA.

Housing affordability is determined relative to the AMI for a locality, as defined by the U.S. Department of Housing and Urban Development (HUD).[43] Per HUD's definition, very low-income housing is affordable for households with incomes under 50 percent of the AMI, low-income housing is affordable for households with incomes between 51 and 80 percent of the AMI, moderate-income housing is affordable for households with incomes between 81 and 120 percent of the AMI, above moderate-income housing is affordable for households with incomes between 121 and 150 percent of the AMI, and upper-income housing is affordable for households with incomes greater than 151 percent of the AMI.

Employment growth generated by the Proposed Project would contribute to housing demand at various income levels. Table 3.5-6 provides a breakdown of the Proposed Project's indirect housing demand, according to projected household incomes. As shown, within the region, the Proposed Project would indirectly result in the demand for 24 housing units for households with extremely low incomes, 78 housing units for households with very low incomes, 215 units for households with low incomes, 185 units for households with moderate incomes, 210 units for households with above-moderate incomes, and 334 units for households in the upper-income brackets. Table 3.5-6 also includes a breakdown of the estimated share of Menlo Park's total housing needs by income, using the conservative assumption that 7.4 percent of employees at the Project site would live in the city. As shown, approximately 37 units would be needed for households with extremely low to moderate incomes, 15 units for households with above-moderate incomes, and 25 units for households in the upper-income brackets.

Conclusion. The Proposed Project is an infill development within an already-developed area of the city. Employment growth, as well as indirect housing demand, under the Proposed Project is accounted for in ConnectMenlo and regional growth plans, such as ABAG projections. The Project site is well served by urban infrastructure, services, and a shuttle. The Proposed Project would not induce a substantial level of unplanned population growth in the city, either directly or indirectly, resulting in ***less-than-significant*** impacts.

[43] According to the California Department of Housing and Community Development (FY 2021), the area median income in San Mateo County is $104,700 for one person, $119,700 for two people, $134,650 for three people, and $149,600 for four people.

Table 3.5-6. Number of New Households by Household Income Level in the Region and City

Income Category	Income Definition	Number of Households (City)	Number of Households (Region)[a]	Percentage of Total (Region)
Extremely Low Income	0%–30% AMI	2	24	2.3%
Very Low Income	31%–50% AMI	6	78	7.5%
Low Income	51%–80% AMI	16	215	20.6%
Moderate Income	81%–120% AMI	13	185	17.7%
Above Moderate Income	121%–150% AMI	15	210	20.1%
Subtotal to 150% AMI		*52*	*712*	*68.1%*
Upper Income	More than 150% AMI	25	334	31.9%
Total		**77**	**1,046**	**100%**

Source: KMA, 2021.

Note:

a. The region includes San Mateo County, Santa Clara County, Alameda County, San Francisco County, Contra Costa County, Santa Cruz County, Marin County, Napa County, and Sonoma County and the city of San Francisco. A small portion of the households generated by the Proposed Project would be located outside the region.

Impact POP-2: Displacement of People or Housing. The Proposed Project would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere. (LTS)

The Project site is within the Commonwealth Corporate Center at 162 and 164 Jefferson Drive. The two existing buildings (Buildings 1 and 2) on the site are currently occupied by approximately 1,550 Meta employees. With implementation of the Proposed Project, these employees would remain in the existing buildings. Together with the 1,996 employees at the new office building, approximately 3,546 people would work at the Project site. In order to accommodate the proposed building, parking structure, and Jefferson Park, existing surface parking lots and landscaping would be removed. No housing units are located at the Project site. Therefore, the Proposed Project would not directly displace people or housing by demolishing housing units or an existing employment center. The displacement of housing units or residents is an appropriate subject for study under CEQA to the extent that a project would displace housing onsite and result in a need to construct replacement housing elsewhere. By itself, the possibility of a project resulting in economic displacement of existing residents represents a social and economic issue that would not be considered an impact on the physical environment, unless there is substantial evidence that economic displacement would result in reasonably foreseeable (i.e., not speculative) indirect physical effects that would require the construction of new housing. Therefore, for the purposes of CEQA, the Proposed Project would not result in the displacement of people or housing, resulting in a ***less-than-significant*** impact.

Consistent with the requirements of the 2017 settlement agreement, a displacement analysis[44] has been conducted for the Proposed Project. The displacement analysis, provided as Appendix 3.5 to this document, is provided for informational purposes and is not a requirement of CEQA; therefore, it is not summarized here. Please refer to Appendix 3.5 for an evaluation of the Proposed Project's potential to contribute to the displacement of existing residents as well as neighborhood change in two communities that are known to be vulnerable to displacement, East Palo Alto and the Belle Haven neighborhood of Menlo Park.

44 Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment Commonwealth Building 3 Project*. May.

Cumulative Impacts

The city represents the geographic context for cumulative analysis of the Proposed Project. This cumulative analysis examines the effects of the proposed development in the area in combination with other current projects, probable future projects, and projected future growth within the applicable geographic context, as forecast by ABAG and MTC. The identified cumulative development projects within the city (Table 3-1) would result in 3,321 dwelling units and 4,783,299 gsf of office/retail/commercial/life science/mixed uses.

Impact C-POP-1: Cumulative Displacement and Indirect Population Growth. Proposed development in the city when considered with the Proposed Project would contribute to population growth but would not exceed growth projections, and the Proposed Project would not make a cumulatively considerable contribution to displacement. (LTS)

The Proposed Project would not demolish existing employment centers or housing; the Project features would be constructed in existing surface parking lots and landscaped areas. Therefore, the Proposed Project would not displace housing or people or require the construction of replacement housing elsewhere. Accordingly, under cumulative conditions, implementation of the Proposed Project would not make a cumulatively considerable contribution to the displacement of housing or substantial numbers of people or require the construction of replacement housing elsewhere.

The Proposed Project would be consistent with the mix and intensity of development contemplated by ConnectMenlo. However, the ConnectMenlo EIR identified a significant and unavoidable impact and therefore adopted a statement of overriding considerations related to population growth under the cumulative condition because the planning documents pertaining to regional growth did not include the new development potential of ConnectMenlo. However, subsequent to certification of the ConnectMenlo EIR, ABAG updated its growth projections (*Plan Bay Area, Projections 2040*), which included full buildout of ConnectMenlo. Therefore, because the Proposed Project is within the scope of development anticipated by ConnectMenlo and ABAG's *Plan Bay Area, Projections 2040*, the Proposed Project when considered with past, present, and reasonably foreseeable future growth would result in a less-than-significant cumulative impact with respect to cumulative population growth. The Proposed Project would not result in any new or more significant impacts related to population growth under the cumulative condition than those that were previously identified in the ConnectMenlo Final EIR, and this impact would be ***less than significant***.

3.6 Utilities and Service Systems

This section describes the affected environment and regulatory setting related to the water supply and wastewater generation. It also describes the impacts on utilities and service systems that would result from implementation of the Proposed Project. Cumulative impacts are discussed at the end of this section. The analysis is based primarily on information from the Menlo Park Municipal Water (MPMW) 2020 Urban Water Management Plan (UWMP)[1] and the Water Supply Assessment (WSA) for the Proposed Project prepared by West Yost (Appendix 3.6).[2]

The Initial Study prepared for the Proposed Project (Appendix 1-1) found the following impacts to be less than significant: construction or expansion of electrical and telecommunications infrastructure, construction or expansion of stormwater drainage facilities, and solid waste generation. Therefore, these topics were scoped out from further review in the environmental impact report (EIR) and are not discussed in detail in this section. Please refer to Appendix 1-1 for additional analysis. In addition, since preparation of the Initial Study, the Proposed Project was updated to be all electric and not use natural gas. As such, the Proposed Project would not be expected to result in any impacts on natural gas facilities.

Two comments pertaining to utilities and service systems were received in response to the Notice of Preparation (NOP) (Appendix 1-2), one regarding the use of natural gas versus electricity and one regarding demolition waste.

Existing Conditions

Environmental Setting

Water Supply

The MPMW provides water to roughly half of Menlo Park (including the Project site), which equates to about 16,000 residents in an area of approximately 9 square miles, through 4,355 service connections (as of 2015). The MPMW purchases all of its water from the Regional Water System (RWS), which is operated by the San Francisco Public Utilities Commission (SFPUC). Approximately 85 percent of the water supplied to the RWS originates in the Hetch Hetchy watershed in Yosemite National Park. The water flows down the Tuolumne River and into Hetch Hetchy Reservoir. Water from the Hetch Hetchy watershed is managed through the Hetch Hetchy Water and Power Project (Hetch Hetchy Project). The Hetch Hetchy Project is composed of reservoirs, hydroelectric generation and transmission facilities, and water transmission facilities, from the Hetch Hetchy Valley west to the Alameda East Portal of the Coast Range Tunnel in Sunol Valley.

The reliability of the MPMW's water supply is dependent upon its water supply contract with the SFPUC and its membership in the Bay Area Water Supply and Conservation Agency (BAWSCA), which represents the SFPUC's 26 wholesale customers and coordinates their water conservation programs. Approximately 15 percent of the water supply to the RWS originates in the Alameda and Peninsula watersheds, which

[1] City of Menlo Park. 2021. *2020 Urban Water Management Plan for Menlo Park Municipal Water*. Available: https://www.menlopark.org/DocumentCenter/View/28016/Draft-Urban-Water-Management-Plan. Accessed: June 21, 2021.

[2] West Yost. 2022. *Commonwealth Building 3 Project Water Supply Assessment*. Prepared for Menlo Park Municipal Water. February 2022.

comprise the Alameda System and the Peninsula System. These systems generally consist of facilities west of the Alameda East Portal, including the 63,000-acre Alameda and Peninsula watersheds, storage reservoirs, two water treatment plants (WTPs), and a distribution system that delivers water to retail and wholesale customers. The current reliability of the MPMW's water supply is largely dependent upon the reliability of the SFPUC's water supply.

The City of Menlo Park (City) does not own or operate a WTP. Although the Hetch Hetchy water source meets federal and state drinking water quality requirements without the need for filtration, it is secondarily disinfected with ultraviolet treatment at the SFPUC's Tesla Treatment Facility, constructed in 2011. All SFPUC water derived from sources other than Hetch Hetchy Reservoir is treated at one of two treatment plants, the Sunol Valley WTP or the Harry Tracy WTP. The Sunol Valley WTP treats primarily water from the Alameda System reservoirs. The Harry Tracy WTP filters and disinfects water supplied from the Peninsula System, including Crystal Springs Reservoir and San Andreas Reservoir.[3,4] The Tesla Treatment Facility has a capacity to treat 315 million gallons per day (mgd).[5] Recent construction at the Sunol Valley WTP increased the plant's peak capacity from 120 to 160 mgd.[6] The Harry Tracy WTP, which was seismically upgraded in 2017, has the capacity to provide approximately 140 mgd for 60 days within 24 hours of a major earthquake.[7]

In 2021, the City adopted the 2020 UWMP, an update to the 2015 UWMP. The 2020 UWMP carries forward information from the 2015 UWMP that remains current and relevant but also provides additional information required by the amendments to the Urban Water Management Planning Act (California Water Code Sections 10610–10657). The 2020 UWMP concludes that, with implementation of water conservation measures through the Water Shortage Consistency Plan (WSCP), Menlo Park will have the necessary water resources available to support anticipated growth, including the growth anticipated in the General Plan and M-2 Area Zoning Update (ConnectMenlo).

The WSCP, which serves as a stand-alone document, is engaged in case of a water shortage event, such as a drought or supply interruption. It provides specific policies and actions that can be implemented for various shortage scenarios (e.g., implementing customer water budgets and surcharges or restricting landscape irrigation to specific days and/or times). Consistent with Department of Water Resources requirements, the WSCP provides six standard water shortage levels, ranging from 10 percent to more than 50 percent.[8,9]

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3 Ibid.

4 Menlo Park Municipal Water. 2021. *Menlo Park Municipal Water*. Available: https://www.menlopark.org/131/Menlo-Park-Municipal-Water. Accessed: February 23, 2021.

5 San Francisco Public Utilities Commission. 2011. *Hetch Hetchy Regional Water System, Tesla Treatment Facility*. Available: https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=708008&ver=1&data=272583080. Accessed: July 14, 2021.

6 Monterey Mechanical Company. 2021. *Sunol Water Treatment Plant*. Available: https://www.montmech.com/project/sunol-water-treatment-plant/. Accessed May 26, 2022.

7 San Francisco Public Utilities Commission. 2011. *Hetch Hetchy Regional Water System, Harry Tracy Water Treatment Plant*. Available: https://baywork.org/wp-content/uploads/2017/08/Harry-Tracy-Water-Treatment-Plant-fact-sheet-020817.pdf#:~:text=The%20recently%20upgraded%20Harry%20Tracy%20Water%20 Treatment%20Plant, Hetch%20Hetchy%20Regional%20Water%20System.%20Filter%20no.%203. Accessed: July 14, 2021.

8 City of Menlo Park. 2021. *2020 Urban Water Management Plan for Menlo Park Municipal Water*. Available: https://www.menlopark.org/DocumentCenter/View/28016/Draft-Urban-Water-Management-Plan. Accessed: June 21, 2021.

9 As mentioned above, the City receives its water from the SFPUC. In April 2021, the SFPUC issued a draft UWMP for adoption in July 2021. The SFPUC's draft UWMP identified several potential future water supply scenarios. Scenarios that involve full adoption of the Bay-Delta Plan indicate substantial long-term water deficits during multi-year droughts. Such deficits could result in cities not receiving their full annual water allocations from the SFPUC. However, should this scenario occur, the City's WSCP would be implemented, along with further reductions, as needed. Compliance with City code and ordinance requirements, the 2020 UWMP, and the WSCP, as well as any additional water reductions, would apply across the City's water department to all customers.

In 2020, processed and redistributed recycled water, discussed below, accounted for 20 million gallons (mg), offsetting the demand for potable water from the SFPUC. In addition, the MPMW has emergency groundwater resources. Its recently completed Emergency Water Storage/Supply Project constructed wells to provide a backup water supply for the MPMW's Lower Zone, which lacks emergency storage. If water supplies from the RWS are reduced or unavailable, the project would have the capacity to provide the MPMW with up to 4.32 mgd from two or three wells at separate locations. Because of COVID-19, the State Water Resources Control Board (SWRCB) has not been able to inspect the construction and permit the new wells. The SWRCB will also need to amend the MPMW's permit to allow water from the wells to be used for drinking water.

Project Site Water Supply and Infrastructure

The Project site is within the Lower Zone of MPMW's service area, which includes three hydraulically isolated service areas. The MPMW is the identified public water system provider for the Proposed Project. The Project site is served by existing water lines.

Wastewater Collection and Treatment

The City does not own or operate a wastewater treatment plant (WWTP) and does not convey its own wastewater. In the MPMW's service area, the West Bay Sanitary District (WBSD) provides wastewater collection and conveyance services to Menlo Park, portions of Portola Valley and Atherton, portions of East Palo Alto and Redwood City, and portions of unincorporated San Mateo County. The WBSD service area encompasses approximately 8,325 acres and has approximately 19,000 connections to serve a population of 52,900. The collection system includes approximately 200 miles of gravity sewer mains; about 37 miles of pressure, or force, mains; and 12 sewage pump stations. The MPMW conveys the majority of raw wastewater from the Menlo Park pump station and force main to the Silicon Valley Clean Water (SVCW) pump station in Redwood City for treatment and discharge to San Francisco Bay.[10] A limited volume of wastewater is treated within the MPMW service area at the Sharon Heights Recycled Water Facility (RWF), located at the Sharon Heights Golf and Country Club, which began using recycled water in late 2020.

SVCW, a Joint Powers Authority, serves the cities of Belmont, Redwood City, and San Carlos as well as the WBSD. More than 220,000 people and businesses are in its service area. SVCW owns and operates a WWTP, including the support facilities necessary for operation and maintenance of the plant. Its facilities also include force mains for a wastewater conveyance system, five wastewater conveyance pump stations, and an effluent outfall to a deep-water channel in the San Francisco Bay.[11]

The Sharon Heights RWF is managed by the WBSD in coordination with the MPMW. This 0.5 mgd satellite WWTP produces tertiary recycled water under Title 22 for reuse within the MPMW's service area. Wastewater is diverted from the WBSD's collection system and pumped into the RWF. In 2020, approximately 63 mg of wastewater was treated at the Sharon Heights RWF. Of that total, 20 mg was recycled; the remaining 43 mg was conveyed to the SVCW WWTP for discharge. According to the 2020 MPMW UWMP, the amount of wastewater collected from the MPMW service area in 2020 totaled approximately 873 mg.

[10] West Bay Sanitary District. 2021. *About Us*. Available: https://westbaysanitary.org/about-us/. Accessed: February 23, 2021.

[11] Silicon Valley Clean Water. 2020. *Capital Improvement Program 2020 Update, FY 20–21 to FY 29–30*. Available: https://svcw.org/wp-content/uploads/2020/08/2020-SVCW-CIP-Update.pdf. Accessed: July 12, 2021.

The Bayfront RWF is a planned facility projected to come online by 2030. It will provide approximately 39 mg of recycled water per year for irrigation and 33 mg per year for indoor non-potable uses.

As noted in the ConnectMenlo EIR and reported by the Regional Water Quality Control Board (RWQCB), the SVCW WWTP has an average dry-weather design flow of 29 mgd and a peak wet-weather design flow of 71 mgd. In general, conveyance systems and treatment plants are designed and constructed to accommodate future capacity, including additional base flows due to planned growth plus estimated wet-weather flows.[12]

Project Wastewater Collection and Infrastructure

The existing building connects to an 8-inch sanitary sewer main at Jefferson Drive. Wastewater from the campus property is discharged to the South Bayside System Authority pump station in Redwood City.

Regulatory Setting

This section describes the existing regulatory setting and conditions that are relevant to the Proposed Project with regard to water and wastewater collection and treatment.

Federal

Federal Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), enacted in 1974, is a federal law. Its intent is to ensure safe drinking water for the public. The SDWA, which has been amended several times since it came into law, authorizes the U.S. Environmental Protection Agency (EPA) to set national standards for drinking water. These are called the National Primary Drinking Water Regulations. The regulations, which provide protection from both naturally occurring and man-made contaminants, set enforceable maximum contaminant levels for drinking water and require all water providers in the United States to treat water sources, except for private wells that serve fewer than 25 people. In California, the State Department of Health Services conducts most enforcement activities. If a water system does not meet the standards, it is the water supplier's responsibility to notify its customers.

Clean Water Act

The federal government regulates wastewater treatment and planning through the Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), as well as the National Pollutant Discharge Elimination System (NPDES) permit program (discussed below). The CWA regulates the discharge of pollutants into watersheds throughout the nation and is the primary federal law that governs water pollution. Under the CWA, the EPA implements pollution control programs and sets wastewater standards. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point-source and nonpoint-source pollution, providing assistance to publicly owned treatment works to improve wastewater treatment, and maintaining the integrity of wetlands.

[12] City of Menlo Park. 2016. *ConnectMenlo General Plan Land Use and Circulation Elements and M-2 Area Zoning Update EIR*. Available: https://www.menlopark.org/DocumentCenter/View/10360/ConnectMenloProject DEIR_060116?bidId=. Accessed: July 12, 2021.

National Pollutant Discharge Elimination System

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters in the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits identify effluent and receiving water limits for allowable connections and/or mass emissions for pollutants contained in discharges, prohibitions on discharges that were not specifically allowed under the permit, and provisions that describe required actions for the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Wastewater discharges are regulated under the NPDES permit program for direct discharges to receiving waters as well as the National Pretreatment Program for indirect discharges to sewage treatment plants.

Operation of the SVCW WWTP and its wastewater collection system is regulated by the waste discharge requirements (NPDES No. CA0038369) found in RWQCB Order No. R2-2018-00XX, effective April 1, 2018, and expiring March 31, 2023.[13] The discharger's wastewater collection system consists of four pump stations, which receive wastewater from the "satellite" wastewater collection systems of four municipal jurisdictions (i.e., WBSD, City of Belmont, City of San Carlos, City of Redwood City). Effluent from the WWTP is also subject to two other NPDES permits, 1) the waste discharge requirements for mercury and polychlorinated biphenyls (PCBs) from municipal and industrial wastewater discharges to San Francisco Bay (NPDES No. CA0038849) and 2) the waste discharge requirements for nutrients from municipal wastewater discharges to San Francisco Bay (NPDES No. CA0038873). The three NPDES permits enable SVCW to discharge treated wastewater into San Francisco Bay.

State

California Porter-Cologne Water Quality Control Act

Under the California Porter-Cologne Water Quality Control Act, passed in 1969 and amended in 2013, the SWRCB has authority over state water rights and water quality policy. The act divides the state into nine regional basins, each of which is under the jurisdiction of the RWQCB that oversees water quality on a day-to-day basis at the local and regional level. RWQCBs oversee a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Menlo Park is under the jurisdiction of the San Francisco Bay RWQCB.

The San Francisco Bay-Delta Water Quality Control Plan

The SWRCB adopted the San Francisco Bay-Delta Water Quality Control Plan (Bay-Delta Plan) on December 12, 2018. The plan establishes water quality objectives that protect uses of water in the Bay-Delta watershed, including uses pertaining to drinking water, water for irrigation, and fish and wildlife habitat. On July 6, 2018, the SWRCB released its proposed final substitute environmental document in support of amendments to the Bay-Delta Plan, which requires the release of 40 percent of the "unimpaired flow" on the Lower San Joaquin River's three salmon-bearing tributaries, the Stanislaus, Tuolumne, and Merced Rivers, from February through June in every year type, whether wet, normal, dry, or critically dry. It also requires a program for implementation. The new flow objectives recognize the vital role upstream flows provide for habitat as well as the migration of threatened and endangered fish. The revised salinity

[13] San Francisco Bay Regional Water Quality Control Board. 2018. *Tentative Order No. R2-2018-00XX*. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2018/February/SiliconValley/SVCW_Tentative_Order.pdf. Accessed: July 13, 2021.

objectives reflect updated scientific information about the salt levels that are suitable for agriculture in the southern delta. The reliability of SFPUC RWS supplies is highly dependent on whether or not the 2018 Bay-Delta Plan amendment is implemented. According to the SFPUC, should the Bay-Delta Plan amendment be implemented, significant supply shortfalls are projected in dry years for agencies that receive water supplies from the SFPUC RWS as well as other agencies whose water supplies would be affected by the amendment. For MPMW, supply shortfalls are projected in single dry years (ranging from 27 to 32 percent) and in multiple dry years (ranging from 27 to 44 percent) through 2040, with similar shortfalls through 2045. Should the Bay-Delta Plan amendment not be implemented, MPMW expects to meet the demand for existing and planned future uses through 2040 in normal years, single dry years, and multiple dry years. A 16.5 percent supply shortfall is projected during the fourth and fifth consecutive dry year for base year 2045. These projected supply shortfalls are significantly less than the projected supply shortfalls that would occur if the Bay-Delta Plan amendment is implemented. The SFPUC is currently implementing an Alternative Water Supply Planning Program to investigate new water supplies and address the future long-term reliability challenges and vulnerabilities of the RWS. As of June 2021, the SFPUC was pursuing several strategies to uphold its supply agreements, including strategies involving voluntary agreements, drought planning, alternative water supplies, and litigation.

California Senate Bills 610 and 221

California Senate Bill (SB) 610 and SB 221 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 were companion measures that sought to promote more collaborative planning between local water suppliers and the cities and counties. Both statutes require detailed information regarding water availability. This information would be provided to city and county decision-makers prior to approval of specified large development projects to ensure that prudent water supply planning has been conducted and that planned water supplies will be adequate with respect to meeting existing demands, anticipated demands from approved projects and tentative maps, and the demands of proposed projects.

SB 610 amended California Water Code Sections 10910 through 10915 (inclusive) to require land use lead agencies to, in certain instances:

- Identify any public water purveyor that may supply water for a proposed development project and
- Request a WSA from the identified water purveyor.

The purpose of the WSA is to demonstrate the sufficiency of the purveyor's water supplies with respect to satisfying the water demands of projects that exceed a certain size and are subject to review under CEQA while still meeting the demands of the water purveyor's existing and planned future uses. Projects that require a WSA include the following: (1) a proposed residential development with more than 500 dwelling units; (2) a proposed shopping center or business establishment that would employ more than 1,000 persons or have more than 500,000 square feet of floor space; (3) a proposed commercial office building that would employ more than 1,000 persons or have more than 250,000 square feet of floor space; (4) a proposed hotel or motel, or both, with more than 500 rooms; (5) a proposed industrial, manufacturing, or processing plant or industrial park that would house more than 1,000 persons, occupy more than 40 acres of land, or have more than 650,000 square feet of floor area; (6) a mixed-use project that would include one or more of the projects specified in this subdivision; and (7) a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a project with 500 dwelling units. California Water Code Sections 10910 through 10915 delineate the specific information that must be included in the WSA.

SB 221 amended state law (California Government Code Section 66473.7) to require affirmative written verification of an adequate water supply prior to approval by a city or county of certain residential subdivisions. SB 221 was intended to be a fail-safe mechanism that would ensure collaboration in finding the needed water supplies before construction begins.

A WSA would be required for the Proposed Project because it would involve more than 1,000 employees. The WSA prepared for the Proposed Project, included in Appendix 3.6, complies with SB 610 (California Water Code Sections 10910 through 10915). The WSA was approved by the Menlo Park City Council on March 22, 2022 pursuant to Resolution No. 6721. The Proposed Project does not include a residential subdivision; therefore, the SB 221 requirements do not apply to the Proposed Project.

Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an UWMP and update it every 5 years. This requirement applies to all suppliers that provide water to more than 3,000 customers or supply more than 3,000 acre-feet of water annually. The act is intended to support the conservation and efficient use of urban water supplies. It requires a comparison between a project's water use and water supply sources for the next 20 years, in 5-year increments; planning for single and multiple dry years; and a water recycling analysis with a description of the wastewater collection and treatment system within the agency's service area and the current and potential recycled water uses. In September 2014, the act was amended by SB 1420 to require urban water suppliers to provide descriptions of their water demand management measures and similar information. The MPMW's most recent update to its UWMP occurred in 2021.

The MPMW's 2020 UWMP incorporated future population, employment, and water demand projections with buildout of the general plan, including the additional allowable development associated with ConnectMenlo and other major development projects in the MPMW service area. The Proposed Project, if approved, would be within the total development potential permitted for both ConnectMenlo and the associated program-level EIR. Therefore, the water demand of the Proposed Project is included in the MPMW's 2020 UWMP.

2009 Water Conservation Act

The Water Conservation Act of 2009, SB X7-7, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water use by 20 percent by 2020, with an interim goal of 10 percent by 2015. Effective in 2016, urban retail water suppliers that did not meet the water conservation requirements established by this bill were not eligible for state water grants or loans. SB X7-7 requires urban retail water suppliers to determine baseline water use and set reduction targets according to specified standards.

State Updated Model Water Efficient Landscape Ordinance

The updated Model Water Efficient Landscape Ordinance required cities and counties to adopt landscape water conservation ordinances by February 1, 2016, or a different ordinance that would be at least as effective in conserving water as the updated ordinance. The City adopted Ordinance No. 968, Water Efficient Landscaping Regulations, in 2016 and revised Menlo Park Municipal Code Chapter 12.44, as described below.

CALGreen Building Code

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations [CCR]). It applied to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the code, throughout California. CALGreen established planning and design standards for sustainable site development, including water conservation measures and requirements for new buildings to reduce water consumption by 20 percent. The mandatory provisions of CALGreen became effective January 1, 2011. The building efficiency standards are enforced through the local building permit process. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through building concepts with either a reduced negative impact or a positive environmental impact and the encouragement of sustainable construction practices in the following categories:

- Planning and design,
- Energy efficiency,
- Water efficiency and conservation,
- Material conservation and resource efficiency, and
- Environmental quality.

The California Plumbing Code

The California Plumbing Code (Part 5, Title 24, CCR) was adopted as part of the California Building Standards Code to prevent disorder in the industry as a result of widely divergent plumbing practices and the use of many different, and often conflicting, plumbing codes by local jurisdictions. Among the many topics covered in the code were water fixtures, potable and non-potable water systems, and recycled water systems. According to the code, water supply and distribution practices shall comply with all applicable provisions of the current edition of the California Plumbing Code.

Executive Order N-10-21

On July 8, 2021, California Governor Gavin Newsom issued Executive Order N-10-21, which proclaimed a state of emergency due to drought conditions in nine counties, Inyo, Marin, Mono, Monterey, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, and Santa Cruz. It directs state agencies to take actions to bolster drought resilience and prepare for impacts on communities, businesses, and ecosystems. The order calls on all Californians to reduce their water use voluntarily by 15 percent from their 2020 levels.[14] Menlo Park is in San Mateo County.

State Water Resources Control Board

On May 2, 2006, the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, prevent sanitary sewer waste from entering the storm sewer system, and develop a Sanitary

[14] State of California. 2021. *Executive Order N-10-21*. Available: https://www.gov.ca.gov/wp-content/uploads/2021/07/Conservation-EO-N-10-21.pdf. Accessed: July 13, 2021.

Sewer Master Plan. The General Waste Discharge Requirement requires storm sewer overflows to be reported to the SWRCB with use of an online reporting system. The SWRCB has delegated enforcement authority to the nine RWQCBs. The San Francisco Bay RWQCB issues and enforces NPDES permits applicable to the WBSD wastewater collection system in Menlo Park and the SVCW WWTP in Redwood City.

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts. It also authorizes the districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The act was amended in 1949 to allow the districts to provide solid waste management and disposal services, including refuse transfer and resource recovery.

Local

Bay Area Water Supply and Conservation Agency

The BAWSCA, created in 2003, represents 26 agencies that depend on the San Francisco RWS, including the MPMW. The BAWSCA oversees and coordinates water conservation, water supply, and water recycling activities for member agencies; acquires water and makes it available to other agencies on a wholesale basis; finances improvements to the RWS; and builds facilities as necessary.

Silicon Valley Clean Water 2020 Capital Improvement Program

The 2020 updated SVCW Capital Improvement Program (CIP), which is applicable through fiscal year 2030, identifies and allocates funds for projects within the SVCW system. This includes projects that would replace and rehabilitate existing infrastructure (e.g., pump stations, treatment plant, force main).

West Bay Sanitary District Collection System Master Plan

The WBSD completed a sewer Collection System Master Plan in June 2011. In July 2013, the WBSD updated the plan to address recalibration issues following completion of several CIP projects that affected the district's flow monitoring program. The 2011 master plan assessed the conveyance capacity of the WBSD's sewer collection system (e.g., pipes, pump stations); evaluated facilities, which may require rehabilitation or replacement; developed a prioritized CIP; and established a funding plan for the proposed CIP.

West Bay Sanitary District Code of General Regulations

The WBSD's Code of General Regulations establishes standards, conditions, and provisions for fees related to the use of the district's sanitary wastewater facilities. Article VII requires Class 1 sewer permits for residential connections, Class 2 sewer permits for non-residential connections, and Class 3 sewer permits for construction of sewer mains, pumping stations, and other wastewater facilities. To receive a permit, a developer must submit an application, pay all fees and charges, and satisfy requirements, such as extending collection facilities to the vicinity of the development site. For a Class 3 permit, the WBSD manager examines the submitted application's conformance with engineering practices and the standard specifications and policies of the WBSD and then submits it to the WBSD board of directors for approval. Subsequent to the WBSD's acceptance of a Class 3 permit, but prior to connection of and discharge into the WBSD's wastewater facilities, a Class 1 or Class 2 permit, as applicable, must be obtained by the developer. All costs and expenses associated with the installation and connection of the building sewer shall be at the owner's expense. All work shall be inspected and performed in accordance with the standard specifications of WBSD.

Water Shortage Contingency Plan

As part of MPMW's updated 2020 UWMP, the district has updated its WSCP,[15] which serves as a stand-alone document to be engaged in case of a water shortage event, such as a drought or supply interruption. It defines the specific policies and actions that will be implemented for various shortage scenarios. The main objective of the WSCP is to ensure that MPMW has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. Consistent with California Water Code Section 10632, the WSCP provides six standard water shortage levels to address shortage conditions, ranging from 10 percent to more than 50 percent; identifies a suite of demand mitigation measures for the MPMW to implement at each level; and identifies procedures for the MPMW to use to assess annually whether or not a water shortage is likely to occur in the coming year, among other things.

ConnectMenlo/General Plan Update

In 2016, the City completed a multi-year planning effort to update the Land Use and Circulation Elements and M-2 Zoning specifications of its general plan for the 2040 planning horizon. This general plan update process was known as ConnectMenlo. ConnectMenlo reaffirmed remaining development potential within Menlo Park and incorporated land use changes in the Bayfront Area, including the development potential for up to 4,500 new multi-family residential units, 2.3 million gross square feet (gsf) of new non-residential uses, and 400 new hotel rooms.

A program-level EIR was prepared for ConnectMenlo. Furthermore, in conjunction with the ConnectMenlo EIR, a Water Supply Evaluation Study (WSE Study)[16] was prepared to determine whether there would be an adequate water supply available to meet current and planned water demands within the service area during normal and dry hydrologic years over a 20-year horizon. More specifically, the WSE Study included:

- Summaries of the WSA requirements articulated in California Water Code Sections 10910–10915 and a description of how they were addressed in the WSE Study.
- A description and analysis of current and projected future water demands for the ConnectMenlo project through 2040.
- A description and analysis of historical, current, and projected future water demands for the MPMW service area through 2040.
- A description and analysis of current and projected future water supplies for the MPMW service area through 2040.
- A comparison of water supplies and demands for the MPMW's water service area, including projected water demands associated with the ConnectMenlo project.

Data in the WSE Study were based primarily on the MPMW 2010 UWMP; the draft MPMW 2015 UWMP, which was developed at the same time as the WSE Study; information from the City; and specific information from PlaceWorks, author of the 2016 ConnectMenlo EIR. The final adopted MPMW 2015 UWMP incorporated the ConnectMenlo growth projections.

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[15] Menlo Park Municipal Water. 2021. *2020 Urban Water Management Plan, Appendix J, Water Shortage Contingency Plan*. Available: https://www.menlopark.org/DocumentCenter/View/28016/Draft-Urban-Water-Management-Plan. Accessed: July 13, 2021.

[16] City of Menlo Park. 2016. *Water Supply Evaluation Study for ConnectMenlo – General Plan and M-2 Area Zoning Update*. Available: https://www.menlopark.org/DocumentCenter/View/9587/020916-ConnectMenlo-WSE-2016-02-04-FINAL?bidId=. Accessed: February 7, 2022.

Even though the Proposed Project was not specifically identified in ConnectMenlo or the MPMW 2015 UWMP, the ConnectMenlo EIR defines the maximum level of development that can occur in the ConnectMenlo study area. The MPMW is actively tracking the preliminary water demand estimates for planned projects within the MPMW service area, including projects in the ConnectMenlo study area, on a cumulative basis to ensure that development remains below the maximum level permitted in the ConnectMenlo EIR. The Proposed Project, if approved, would be included in this cumulative development total, which would be below the maximum level permitted.

Menlo Park Municipal Code

The Menlo Park Municipal Code, which is organized by title, chapter, and section, contains all ordinances for Menlo Park. Title 7, Health and Sanitation; Title 12, Buildings and Construction; and Chapter 16, Zoning, include regulations relevant to water resources, as discussed below.

Chapter 7.35, Water Conservation, contains regulations and restrictions regarding water use in order to conserve water resources and eliminate wasteful water uses. Menlo Park Municipal Code Section 7.35.020 requires the City Council to adopt by resolution a water conservation plan and mandate water conservation measures in the event of adoption of emergency water conservation regulations by the SWRCB.

Chapter 12.44, Water Efficient Landscaping Ordinance, adopted in 2016 (Ordinance No. 968), establishes water-efficient landscaping standards to conserve water used for irrigation. The ordinance applies to all new landscapes greater than 500 square feet and rehabilitated landscapes greater than 1,000 square feet associated with projects that require City review and approval.

Section 16.43.140(3), Green and Sustainable Building, Water Use Efficiency, and Recycled Water, specifies requirements for water use efficiency and recycled water use in the Office (O) zone. These include:

a. Single-pass cooling systems shall be prohibited in all new buildings.

b. All new buildings shall be built and maintained without the use of well water.

c. Applicants for a new building with more than 100,000 square feet of gross floor area shall prepare and submit a proposed water budget and accompanying calculations, following the methodology approved by the City. For all new buildings with 250,000 square feet or more in gross floor area, the water budget shall account for the potable water demand reduction resulting from the use of an alternative water source for all City-approved non-potable applications. The water budget and calculations shall be reviewed and approved by the City's Public Works Director prior to certification of occupancy. Twelve months after the date of certification of occupancy, the building owner shall submit the data and information necessary for the City to compare actual water use to the allocation in the approved water budget. In the event that actual water consumption exceeds the water budget, a water conservation program, as approved by the City's Public Works Director, shall be implemented. Twelve months after City approval of the water conservation program, the building owner shall submit the data and information necessary for the City to determine compliance with the conservation program. If water consumption exceeds the budgeted amount, the City's Public Works Director may prohibit the use of water for irrigation or enforce compliance as an infraction, pursuant to Chapter 1.12, until compliance with the water budget is achieved.

d. All new buildings shall be dual plumbed for the internal use of recycled water.

e. All new buildings with 250,000 square feet or more in gross floor area shall use an alternate water source for all City-approved non-potable applications. An alternative water source may include, but is not limited to, treated non-potable water such as graywater. An alternate water source assessment shall be submitted that describes the alternative water source and proposed non-potable application. The alternate water source assessment, the alternative water source, and the water's proposed uses shall be approved by the City's Public Works Director and Community Development Director. If the MPMW has not designated a recycled water purveyor and/or a municipal recycled water source is not available prior to project approval, applicants may propose conservation measures to meet the requirements of this section, subject to approval of the City Council. The conservation measures shall achieve a reduction in potable water use equivalent to the projected demand of City-approved non-potable applications, but in no case shall the reduction be less than 30 percent compared to the water budget in subsection (3)(C) of this section. The conservation measures may include onsite measures, offsite measures, or a combination thereof.

f. Potable water shall not be used for dust control on construction projects.

g. Potable water shall not be used for decorative features, unless the water recirculates.

Because the gross floor area of the proposed building would be less than 250,000 square feet, an alternative water source assessment is not required (refer to "e," above).

Environmental Impacts

This section describes the impact analysis related to utilities and service systems associated with the Proposed Project. It describes the methods used to determine the impacts of the Proposed Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Proposed Project would have a significant effect if it would result in any of the conditions listed below. Some topics that do not require new analysis in this EIR are discussed below (refer to the Initial Study prepared for the Proposed Project in Appendix 1-1).

- Require or result in the relocation of existing or the construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have insufficient water supplies available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- Result in a determination by the wastewater treatment provider that serves or may serve the Project site that it has inadequate capacity to serve the Proposed Project's projected demand in addition to the provider's existing commitments.
- 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.
- Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Methods for Analysis

Water Supply and Infrastructure. The analysis in this section focuses on the nature and magnitude of the change in water use compared with existing and projected water use in the MPMW service area. To determine potential impacts, existing and projected water consumption was estimated from demand projection calculations and quantitative evaluation of data for existing land uses, approved projects, and proposed development, including the Proposed Project. The primary resources used for this analysis include the MPMW's 2020 UWMP and the WSA for the Proposed Project.

Wastewater Generation and Infrastructure. The ConnectMenlo EIR assumes that 90 percent of water demand becomes wastewater. This is a conservative assumption because in 2020, the total wastewater that was generated was 82 percent of the total water used.[17,18] Following the methodology used in the ConnectMenlo EIR, it is assumed that wastewater generation with the Proposed Project would equal 90 percent of the water consumed and, therefore, would be conveyed to the SVCW WWTP. The wastewater demands of the Proposed Project are compared to the available capacity of the WBSD sanitary sewer system and the SVCW WWTP to assess the potential for significant environmental impacts.

Summary of Analysis in the ConnectMenlo EIR

As described in Chapter 1, *Introduction*, the ConnectMenlo EIR provided a program-level analysis of the development potential envisioned for the entire city, including the increased development potential in the Bayfront Area that would occur by 2040. The Land Use Element specifically identifies new development potential in the Bayfront Area of 2.3 million gsf of non-residential space, 400 hotel rooms, and 4,500 residential units.[19] The ConnectMenlo EIR determined that, at full buildout, implementation of ConnectMenlo would result in 11,570 additional residents, for a total city-wide population of 50,350, and 5,500 new employees, for a total city-wide daytime population of 53,250. The buildout potential of future development is expected to occur over a 24-year buildout horizon (from approximately 2016 to 2040).[20]

It was determined that impacts related to wastewater treatment requirements, as analyzed in the ConnectMenlo EIR (pages 4.14-36 to 4.14-38), would be less than significant. In accordance with City General Plan policies, zoning regulations, and other applicable regulations, wastewater generated from potential future development would not exceed wastewater treatment requirements or the capacity of existing facilities. No mitigation measures were recommended.

It was determined that impacts related to the construction or expansion of water or wastewater treatment facilities, as analyzed in the ConnectMenlo EIR (pages 4.14-38 to 4.14-43), would be less than significant. It is expected that the City will implement general plan programs that will require the MPMW's conservation programs to be expanded and future development to employ green building best practices. No mitigation measures were recommended. In addition, it was determined that impacts related to the construction or expansion of stormwater drainage facilities, as analyzed in the ConnectMenlo EIR

[17] The 2020 UWMP identified a total water demand of 1,069 million gallons per year (mgy) in 2020 (Table 4-1 of the 2020 UWMP) and a total of 873 mgy of wastewater collected in 2020 (mgy).

[18] (873/1,069) * 100 percent = 82 percent

[19] The ConnectMenlo Final EIR included an evaluation of 4,500 residential units in the Bayfront Area, consisting of 3,000 unrestricted residential units and 1,500 corporate dormitory-style housing units on the Facebook East Campus (also known as the Classic Campus).

[20] Although the ConnectMenlo EIR assumed a buildout horizon of 2040, maximum development potential may be reached sooner than anticipated. The ConnectMenlo EIR evaluated the maximum development potential that could occur at any given time and did not consider phased buildout with respect to development potential; therefore, no new or additional impacts are anticipated as a result of expedited buildout.

(pages 4.14-64 to 4.14-66), would be less than significant. All future development would be required to comply with existing regulations, including general plan policies and zoning regulations, to minimize impacts related to stormwater drainage facilities. In addition, grading and drainage plans for future projects would be reviewed by the City to ensure that onsite drainage infrastructure, low-impact development features, and retention basins would be adequate and able to prevent onsite and offsite flooding. No mitigation measures were recommended.

It was determined that impacts related to the availability of water supplies to serve the growth planned under ConnectMenlo, as analyzed in the ConnectMenlo EIR (pages 4.14-24 to 4.14-27), would be less than significant. Future development under ConnectMenlo would be required to comply with existing regulations, including City General Plan policies and zoning requirements, to minimize impacts related to water supplies. Development under ConnectMenlo would result in a demand for 343 million gallons per year (mgy), which represents 21 percent of the planning-level water demand forecast in the 2015 UWMP (the adopted UWMP at the time). The ConnectMenlo EIR concluded that the water supply would be adequate and able to meet increased demands in normal years as well as the additional demand generated by the increase in development associated with implementation of ConnectMenlo. Future development under ConnectMenlo would be required to comply with existing regulations, including City General Plan policies and zoning requirements, to minimize impacts related to water supplies. No mitigation measures were recommended.

It was determined that impacts related to wastewater treatment capacity, as analyzed in the ConnectMenlo EIR (pages 4.14-43 to 4.14-45), would be less than significant. Future development is expected to tie in to existing collection facilities. The installation of extension lines would comply with applicable sewer permits, which require projects to reduce impacts on service capacity. In addition, projects would be required to comply with existing regulations that promote water conservation and minimize impacts related to wastewater generation. No mitigation measures were recommended.

Solid waste generation was analyzed in the ConnectMenlo EIR under Impact UTIL-8 (pages 4.14-52 to 4.1-55). Compliance with solid waste reduction statutes and regulations was analyzed in the ConnectMenlo EIR under Impact UTIL-9 (pages 4.14-55 and 4.14-56). Both impacts were determined to be less than significant. Future development would be required to comply with existing regulations to minimize impacts related to solid waste disposal and attain solid waste reduction goals. No mitigation measures were recommended.

Impacts Not Requiring New Analysis under Public Resources Code Section 21166

The Initial Study prepared for the Proposed Project (Appendix 1-1) found the impacts listed below to be less than significant. Therefore, these topics were scoped out from further review in the EIR and are not discussed in this section. Please refer to Appendix 1-1 for additional analysis.

Construction or Expansion of Electrical, Natural Gas, and Telecommunications Facilities. Existing electrical infrastructure is anticipated to have the capacity to serve the Proposed Project (refer to Chapter 4 for a discussion of energy demand with the Proposed Project). The Proposed Project would not use natural gas and, therefore, would not connect to natural gas lines. Existing natural gas lines would not need to be upgraded, relocated, expanded, or extended for the Proposed Project. Telecommunications lines may need to be extended or relocated as a result of the Proposed Project. The installation of new or expanded telecommunication lines on the Project site would require excavation, trenching, soil movement, and other activities that are typical during the construction of development projects. These construction impacts are discussed in the appropriate topical sections of the Initial Study as part of the assessment of overall Project impacts. However, no offsite electrical, natural gas, or telecommunications facilities would need to be constructed or expanded as a result of the Proposed Project.

The physical conditions, as they relate to electrical, natural gas, and telecommunications infrastructure, have not changed substantially in the ConnectMenlo EIR study area since preparation of the ConnectMenlo EIR. The Proposed Project would not result in a substantial change in the ConnectMenlo project, change in circumstances, or new information of substantial importance that shows more significant effects than those originally analyzed in the ConnectMenlo EIR; therefore, the Proposed Project would be within the scope of the ConnectMenlo project covered by the ConnectMenlo EIR, and there would be no new specific effects as a result of the Proposed Project. The Proposed Project could require the installation or expansion of telecommunication lines onsite but would not lead to offsite expansion or significant environmental impacts beyond the Project site or beyond the Project-related construction impacts discussed throughout this document. Impacts would be ***less than significant***.

Construction or Expansion of Stormwater Drainage Facilities. Operation of the Proposed Project would result in the construction or expansion of stormwater facilities but would not cause significant environmental effects. Implementation of the Proposed Project would increase the amount of impervious surface area on the Project site only slightly. Hardscape surfaces at the Project site would include concrete paving, decomposed granite paving, and concrete pavers. Because the Proposed Project would create or replace more than 10,000 square feet of impervious surface area, the Proposed Project would be regulated by Provision C.3 of the Municipal Regional Permit. To meet San Mateo Countywide Water Pollution Prevention Program Provision C.3 stormwater requirements, the Proposed Project would be required to treat runoff from all impervious areas. The Project site would be drained by a combination of existing and new onsite storm drain facilities. With the Project's proposed low-impact development (LID) features, the Project would not increase the amount of stormwater funneled to the municipal stormwater system compared to existing conditions.

The onsite system would convey runoff to biotreatment ponds for treatment. The ponds would capture and treat runoff from newly created or replaced impervious areas prior to discharging to the municipal stormwater system. In addition, the Proposed Project would be required to develop and implement a final Stormwater Management Plan, with the goal of reducing the discharge of pollutants to the maximum extent practicable.

The existing stormwater treatment areas on the Commonwealth Site and the existing 2,800-square-foot stormwater treatment area directly adjacent to Jefferson Drive would remain. In addition, the Proposed Project would provide biotreatment areas throughout the site. The overflow pipe at the manhole pump for each biotreatment area would be a minimum of six incheshigher than the treatment volume to prevent the overflow pipe from functioning until the treatment flow has been stored. Flows from all proposed impervious areas, both replaced and new areas, would be directed to a pump that would be sized to discharge runoff to biotreatment areas for stormwater treatment.

The physical conditions, as they relate to stormwater drainage facilities, have not changed substantially in the ConnectMenlo EIR study area since preparation of the ConnectMenlo EIR. There are no substantial changes in the ConnectMenlo project, change in circumstances, or new information of substantial importance that shows more significant effects than those originally analyzed in the ConnectMenlo EIR; therefore, there would be no new or substantially more severe impacts as a result of the Proposed Project. Compliance with applicable stormwater management requirements and implementation of a landscaping plan, designed to provide stormwater treatment areas, would ensure that the Proposed Project would not significantly increase stormwater drainage from the Project site. As such, the Proposed Project would not require the construction of new stormwater drainage facilities or the expansion of existing facilities, resulting in a ***less-than-significant*** impact.

Generation of Solid Waste. Construction of the Proposed Project would generate solid waste. The Proposed Project would be required to comply with the City's Construction and Demolition Recycling Ordinance, which requires salvage or recycling of at least 60 percent of construction-related solid waste. However, pursuant to City Zoning Code Section 16.43.140, the Proposed Project would meet the City's zero-waste requirements. The City defines "zero waste" as the overall diversion of 90 percent of nonhazardous materials from landfill and incineration, with discarded materials reduced, reused, recycled, or composted. Under the zero-waste requirements, the Project Sponsor must submit a zero-waste management plan to the City that shows how the Project would reduce, recycle, and compost waste from the demolition, construction, and occupancy phases of the Project. The zero-waste plan must include the property owner's assessment of the types of waste to be generated during demolition, construction, and occupancy, along with a plan to collect, sort, and transport materials to uses other than landfill and incineration.[21] The Proposed Project's waste generation is within the scope considered in the ConnectMenlo EIR. Therefore, construction of the Proposed Project is not expected to have a significant impact on existing landfills or require the construction of a new landfill.

Operation of the Proposed Project would result in the generation of solid waste beyond existing conditions but would continue to meet state and local standards for solid waste and recycling. The waste generated at the Project site would be collected by Recology San Mateo and hauled to Shoreway. Shoreway is permitted to receive 3,000 tons of refuse per day. Once collected and sorted at Shoreway, solid waste would be transported to Ox Mountain, which is permitted to receive 3,598 tons per day. Solid waste generated by operation of the Proposed Project would represent approximately 0.17 and 0.14 percent of the permitted capacity of Shoreway and Ox Mountain, respectively.[22] This is consistent with the analysis in ConnectMenlo. As such, Shoreway and the Ox Mountain would have adequate capacity to serve the Proposed Project.

Construction and operation of the Proposed Project would comply with all applicable statutes and regulations related to solid waste. State law (Assembly Bills 341 and 939) requires businesses to recycle and cities to divert 50 percent of their solid waste from landfills. The Proposed Project would adhere to these laws. In addition, the Proposed Project would be required to adhere to the City's Construction and Demolition Recycling Ordinance.

The physical conditions, as they relate to solid waste generation and statutes and regulations, have not changed substantially in the ConnectMenlo EIR study area since preparation of the ConnectMenlo EIR. There are no substantial changes in the ConnectMenlo project, change in circumstances, or new information of substantial importance that shows more significant effects than those originally analyzed in the ConnectMenlo EIR; therefore, there would be no new or substantially more severe impacts as a result of the Proposed Project. The Proposed Project would be served by a landfill with adequate permitted capacity to accommodate its solid waste disposal needs. In addition, the Proposed Project would be within the growth projections of the ConnectMenlo EIR and, as such, would not result in impacts that were not already evaluated. Impacts would be ***less than significant***.

[21] American Trash Management. 2019. *DRAFT Commonwealth, Menlo Park, CA, Trash Management Plan*.

[22] See Initial Study (Appendix 1-1) for full analysis.

Project Impacts and Mitigation Measures

Impact UT-1: New and Expanded Water and Wastewater Treatment Facilities. The Proposed Project would not require or result in the relocation of existing or construction of new or expanded water or wastewater treatment facilities. (LTS)

Water

Water for the Proposed Project would be treated at one of three WTPs: the SFPUC's Tesla Treatment Facility, the Sunol Valley WTP, or the Harry Tracy WTP. The Tesla Treatment Facility has the capacity to treat 315 mgd. The Sunol Valley WTP has the capacity to treat 160 mgd. The Harry Tracy WTP has the capacity to treat approximately 140 mgd. The total water demand of the Proposed Project is estimated to be approximately 0.04 mgd. Although it is not known exactly which of the three WTPs would treat water from the Project site, the increase in demand (i.e., about 0.04 mgd) would not be considered a significant increase for the SFPUC system, which can treat approximately 615 mgd with the combined capacity of its three WTPs. Also, the ConnectMenlo EIR found that existing water treatment facility capacity would be adequate for the development planned under ConnectMenlo; the Proposed Project is within the scope of that development. Therefore, no new or expanded water facilities would be required to serve the Project.

As the ConnectMenlo EIR notes, the SFPUC is continuously planning operational upgrades, maintenance, and capital improvements for its WTPs. This is expected to continue in the future, independent of the Proposed Project. Environmental impacts from construction of new or expanded water treatment facilities deemed necessary through the planning process would be addressed in the CEQA review conducted by the lead agency for such facility expansion or development (i.e., SFPUC). Therefore, an evaluation of the possible environmental effects of future expansion/development of such facilities would be speculative and beyond the scope of this EIR.

The Proposed Project, as part of the City's project approval process, would be required to comply with existing regulations, including plans, policies, and zoning regulations that promote water conservation and green building best practices, and would not require or result in the relocation of existing or construction of new or expanded water treatment facilities. Therefore, adoption of the Proposed Project would result in ***less-than-significant*** impacts regarding the need for new or expanded water treatment facilities.

Wastewater

Wastewater in MPMW service area is collected by the WBSD and the SVCW WWTP. According to the 2020 MPMW UWMP, the volume of wastewater from the MPMW service area collected by the WBSD totaled approximately 873 mgy in 2020, or about 2.4 mgd. The wastewater generation estimate for the Proposed Project is approximately 90 percent of its indoor water use estimate of 12.8 mgy, or approximately 11.5 mgy. This would not represent a significant increase for the WBSD relative to its current average collection rates. In addition, the Proposed Project would be within the maximum scope of development studied in ConnectMenlo. The ConnectMenlo EIR concluded that such development would not require the construction of new or relocation of existing wastewater facilities.

Operation of the SVCW WWTP and its wastewater conveyance system is governed by the waste discharge requirements found in RWQCB Order No. R2-2018-00XX (NPDES No. CA0038369). This order has a dry-weather facility design flow of 29 mgd and a peak wet-weather design flow of 71 mgd. The NPDES permit does not have a limitation on flow quantity. As noted in the ConnectMenlo EIR, SVCW reports that its treatment plant has a capacity of 80 mgd; however, some bottlenecks would need to be resolved to get

plant capacity to 80 mgd. Therefore, the WWTP design is not necessarily limited to the peak wet-weather flow of 71 mgd mentioned in the NPDES permit; however, for the purpose of this analysis, 71 mgd is considered the maximum flow permitted.

As stated above, the Sharon Heights RWF at the Sharon Heights Golf and Country Club processes a limited amount of wastewater in Menlo Park. Although water sources for the Proposed Project would not include the use of recycled water, some of its wastewater could be processed at the Sharon Heights RWF and released as recycled water. This, however, is considered speculative. Because the overall amount of processed wastewater would be minimal, it is not included in this analysis. As reported by the RWQCB, from October 2012 through August 2017, the SVCW WWTP treated an average of 13.5 mgd, with a maximum instantaneous flow of 50 mgd. Both rates are well within the 29 mgd average dry-weather design flow and 71 mgd peak wet-weather design flow. Under its Stage 2 expansion program, SVCW will increase WWTP capacity to 80 mgd as needed.

Assuming that 90 percent of the net amount of water used indoors by the Proposed Project (12.8 mgy) would become wastewater (see Impact UT-2, below), the estimated net increase in wastewater generation would be approximately 11.5 mgy, or about 0.031 mgd. This increase in wastewater generation would not be significant relative to the currently available excess dry-weather design flow capacity of 15.5 mgd (i.e., 29 mgd design flow minus 13.5 mgd current average flow = 15.5 mgd) or its excess wet-weather design flow capacity of 57.5 mgd (i.e., 71 mgd design flow minus 13.5 mgd current average flow = 57.5 mgd).

Although the increase in wastewater flows with implementation of the Proposed Project would add to capacity demands for the WWTP and its conveyance system, the effect would not be substantial. Any increase would be integrated into ongoing planning and budgeting processes to improve the conveyance system, treatment processes, and capacity because the Proposed Project would be within the scope of development planned by ConnectMenlo. Planning for operational upgrades, maintenance, and capital improvements at the WWTP is expected to continue in the future, independent of the Proposed Project. Environmental impacts from construction of the new or expanded wastewater treatment facilities deemed necessary through the planning process would be addressed in the CEQA review conducted by the lead agency for such facility expansion or development. Therefore, an evaluation of possible environmental effects from future expansion/development of such facilities would be speculative and beyond the scope of this EIR.

The Proposed Project, as part of the City's project approval process, would be required to comply with existing regulations, including policies and zoning requirements that promote water conservation and minimize impacts related to wastewater generation. In addition, the Proposed Project would not reduce the capacity of the wastewater treatment system substantially. Therefore, the Proposed Project would result in less-than-significant impacts regarding the need for new or expanded wastewater treatment facilities. The Proposed Project would not require or result in the relocation of existing or construction of new or expanded wastewater treatment facilities. Impact UT-1 would be ***less than significant***.

Impact UT-2: Sufficient Water Supply. Sufficient water supplies would be available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years. (LTS)

Because the Proposed Project would be within the maximum scope of development studied in ConnectMenlo, the water demand of the Proposed Project is included in the ConnectMenlo EIR as well as the MPMW's 2015 and 2020 UWMP water demand analyses. This analysis of water supply availability for the Proposed Project is based on numbers from MPMW's 2020 UWMP.

As required by the City, a water budget was prepared for the Proposed Project. Estimated water use for the Proposed Project considers the use of plumbing fixtures, including water closets, urinals, public lavatories, kitchen faucets, and showerheads, as calibrated to comply with CALGreen standards. Water usage related to food services was based on average modeled water usage for office buildings, restaurants, and efficient restaurants. Estimates of water usage for irrigation were based on the Maximum Applied Water Allowance, in accordance with the Model Water Efficient Landscape Ordinance. The projected water demand of the Proposed Project would total 13.7 mgy, or about 0.04 mgd. Indoor water demand from plumbing fixtures, food services, and cooling systems is estimated to be 12.8 mgy. Irrigation uses are estimated to be 0.89 mgy.

Pursuant to California Water Code Section 10910(c)(4) and the technical analyses described in the WSA for the Proposed Project, the MPMW found that total water supply determined to be available over a 20-year timeframe would meet the projected water demand associated with the Proposed Project, in addition to existing and planned future uses. As described previously, the Proposed Project was not specifically identified in the ConnectMenlo EIR. However, the ConnectMenlo EIR defines the maximum scope of development that can occur in the ConnectMenlo study area. The MPMW is actively tracking the projected water demands of all projects in the ConnectMenlo study area on a cumulative basis to ensure that development remains below the maximum level permitted in the ConnectMenlo EIR and therefore within MPMW's service abilities. The Proposed Project, if approved, would be included in this cumulative development total, which would be below the maximum development level permitted.

The MPMW, a member of agency of the BAWSCA, purchases water solely from the SFPUC RWS. The BAWSCA is investigating projects and implementing strategies to improve the reliability of water supplies to its member agencies. In addition, the SFPUC is actively pursuing all options to resolve the potential effects of the Bay-Delta Plan amendment. It remains committed to creating benefits for the Tuolumne River while meeting water supply level-of-service goals and objectives for retail and wholesale customers, such as the MPMW.

The WSA for the Proposed Project summarizes the projected availability of the MPMW's existing and planned future water supplies as well as the MPMW's projected water demands in normal, single, and multiple dry years through 2040. It shows that water demand within the MPMW service area is not expected to exceed MPMW water supplies during normal water years through 2040. During single and multiple dry years, water demand is similarly expected to be in line with MPMW supplies with continued mandatory prohibitions as part of a water-demand management program and implementation of the WSCP, discussed above. Should the Bay-Delta Plan amendment be implemented, starting in 2023, MPMW expects to meet demand during normal water years; however, significant shortfalls during dry and multiple dry years may occur, requiring stricter reductions through the WSCP, as discussed below.

Bay-Delta Plan Amendment Implementation

If the Bay-Delta Plan amendment is implemented, the SFPUC will be able to meet its contractual obligations to its wholesale customers, as presented in the SFPUC's 2020 UWMP, in normal years. The SFPUC 2020 UWMP already assumes shortages in single and multiple dry years through 2040; however, implementation of the Bay-Delta Plan amendment will result in greater shortages. In July 2019, the SFPUC prepared a memorandum to describe future water supply scenarios with adoption of the Bay-Delta Plan amendment. As discussed in the SFPUC memorandum, implementation of the Bay-Delta Plan amendment is uncertain for several reasons. Whether the Bay-Delta Plan amendment will be implemented, when it will be implemented, and the form that implementation will take, as well as how the amendment will affect the SFPUC's water supply, are currently unknown. The SFPUC memorandum estimates shortfalls in water supplies through 2040 under three scenarios:

- Scenario 1: Without implementation of the Bay-Delta Plan amendment, wherein the water supply and demand assumptions contained in the 2015 UWMP would remain applicable.
- Scenario 2: With implementation of a voluntary agreement between the SFPUC and the SWRCB, including a combination of flow and non-flow measures that would be designed to benefit fisheries through a lower water cost, particularly during multiple dry years, than that under the Bay-Delta Plan amendment.
- Scenario 3: With implementation of the Bay-Delta Plan amendment, as adopted. As estimated in the SFPUC memorandum, water supply shortfalls during dry years would be lowest without implementation of the Bay-Delta Plan amendment and highest with implementation of the amendment. The range of shortfalls under the proposed voluntary agreement would be between those with and without implementation of the Bay-Delta Plan amendment.

Under the three scenarios, the SFPUC would have an adequate water supply to meet total wholesale demands through 2040 in normal years. For single dry years and multiple dry years (e.g., with an extended drought), the SFPUC memorandum estimates that shortfalls in water supplies relative to demand would occur both with and without implementation of the Bay-Delta Plan amendment. Without implementation of the Bay-Delta Plan amendment, there would be no shortfalls in single dry years or the first year of a multi-year drought; however, shortfalls in subsequent years of multi-year droughts (i.e., years 2 through 8) would range from 17.1 to 32.5 percent. With implementation of the Bay-Delta Plan amendment, shortfalls of up to 48 percent would occur in single dry years and up to 67.6 percent in multiple dry years. The SFPUC has initiated an Alternative Water Supply Planning Program to ensure that San Francisco can meet the water needs of its retail and wholesale customers, address shortages in projected dry years, and limit rationing to a maximum 20 percent system-wide, in accordance with adopted SFPUC policies. This program, which is in its early planning stages, is intended to meet future water supply challenges and vulnerabilities (e.g., environmental flow needs and other regulatory changes; earthquakes, disasters, and emergencies; increases in population and employment; climate change). Because the region faces future challenges, both known and unknown, the SFPUC is considering a suite of diverse, non-traditional supplies and leveraging regional partnerships to meet retail and wholesale customer needs through 2045.

In the event that the Bay-Delta Plan amendment is implemented, according to SFPUC analyses, MPMW would experience water supply shortfall forecasts in single dry years ranging from 27 to 32 percent of normal allocation and shortfalls in multiple dry years ranging from 27 to 44 percent of normal allocation through 2040, with similar shortfalls forecast through 2045. Should MPMW experience supply shortfalls from SFPUC entitlements due to the Delta-Bay Plan amendment in dry years, MPMW expects that it could still meet its water demands through continued water demand reductions and other shortage response actions through the WSCP. Under single dry-year shortfalls, MPMW would require implementation of Stage 3 or 4 of the WSCP. Under multiple dry-year shortfalls, MPMW would require implementation of Stage 3, 4, or 5 of the WSCP. The Proposed Project would be subject to the same water conservation and water use restrictions as other water users within the MPMW system.

Normal- and Dry-Year Water Supply

In normal years, MPMW expects that its water supplies will be adequate and able to satisfy projected normal-year demands. However, MPMW anticipates that purchases from the SFPUC RWS would be subject to dry-year supply reductions with implementation of the Bay-Delta Plan amendment, which would significantly reduce dry-year allocations for all SFPUC wholesale customers. Recycled water is estimated to be available during all hydrologic years at a volume that meets MPMW's projected recycled-

water demands. Table 3.6-1 shows MPMW's projected supplies during normal, single dry, and multiple dry years through 2040, based on the assumptions in MPMW's 2020 UWMP, which assumes implementation of the Bay-Delta Plan amendment by 2023. Based on the SFPUC's analysis, similar water supplies would be available to MPMW in 2045 under various hydrologic conditions.

Table 3.6-1. MPMW's Projected Water Supplies for Normal, Single, and Multiple Dry Years

	Projected Water Supply (in mg)[a]			
Hydrologic Condition[b]	**2025**	**2030**	**2035**	**2040**
Normal Year	1,678	1,750	1,750	1,750
Single Dry Year	877	978	1,018	1,062
Multiple Dry Years – Year 1	877	978	1,018	1,062
Multiple Dry Years – Year 2	760	854	877	927
Multiple Dry Years – Year 3	760	854	877	927
Multiple Dry Years – Year 4	760	854	877	832
Multiple Dry Years – Year 5	760	854	824	832

Source: West Yost. 2022. *Commonwealth Building 3 Project Water Supply Assessment*. Prepared for Menlo Park Municipal Water. February 2022.

a. Includes the projected potable water supply from the SFPUC RWS and the projected recycled water supply (48 mgy for 2025 and 120 mgy for 2030 to 2040).

b. These estimates do not account for potential changes due to the Bay-Delta Plan amendment, climate change impacts on the SFPUC RWS, and potential delays in completion of the Water System Improvement Program.

In the event that the Bay-Delta Plan amendment is not implemented, the SFPUC has indicated that it would be able to meet 100 percent of its wholesale projected purchases, including those from MPMW, during all year types through 2045, except during the fourth and fifth consecutive dry year for base year 2045 when MPMW would most likely experience a 16.5 percent supply shortfall.

With the MPMW's WSCP in place, the shortages in single and multiple dry years would be managed through demand reductions of up to 50 percent. Furthermore, the City would have water resources available to serve anticipated growth, including the growth anticipated in the ConnectMenlo EIR, which includes the Proposed Project. Also, in accordance with zoning and City water use regulations, the Proposed Project would incorporate green and sustainable building practices (e.g., ultra-low-flow fixtures within the building) and implement water conservation measures, both in the design of the base building and tenant spaces as well as daily operations and employee practices. In addition, the Proposed Project would be required to implement all water conservation measures during various stages of drought enacted by MPMW as, and when, they are deemed necessary. Furthermore, per Menlo Park Municipal Code Section 16.44.130 (3)(D), although recycled water use is not proposed for the Project, the Proposed Project would be dual-plumbed for recycled water use, should recycled water use become feasible in the future. The availability of recycled water in the MPMW service area is expected to increase with completion of the Bayfront RWF, which would offset the demand for potable water. Also, the MPMW's Emergency Water Storage/Supply Project has been completed; once permitted, the project will provide the area with a secure source of water during emergency scenarios. Therefore, sufficient water supplies would be available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years. The impact would be ***less than significant***.

Impact UT-3: Generation of Wastewater. The Proposed Project would not result in a determination by the wastewater treatment providers that they have inadequate capacity to serve the Proposed Project's projected demand in addition to the providers' existing commitments. (LTS)

The WBSD provides wastewater collection and conveyance services for the MPMW, which conveys the majority of raw wastewater to the SVCW WWTP. According to the 2020 MPMW UWMP, the total volume of wastewater collected by the WBSD from the MPMW service area in 2020 was approximately 873 mg, or an average of about 2.4 mgd.

As stated above under Impact UT-1, operation of the SVCW WWTP and its wastewater conveyance system is governed by the waste discharge requirements found in RWQCB Order Number R2-2018-00XX (NPDES No. CA0038369). This order has a dry-weather facility design flow of 29 mgd and a peak wet-weather design flow of 71 mgd. The NPDES permit does not have a limitation on flow quantity. As noted in the ConnectMenlo EIR, SVCW reports that SVCW WWTP has a capacity limit of 80 mgd; however, some bottlenecks would need to be resolved to get plant capacity to 80 mgd. Therefore, the WWTP design is not necessarily limited to the peak wet-weather flow of 71 mgd. As reported by the RWQCB, from October 2012 through August 2017, the plant treated an average of 13.5 mgd, with a maximum instantaneous flow of 50 mgd. Both rates are well within the 29 mgd average dry-weather design flow and 71 mgd peak wet-weather design flow. Under its Stage 2 expansion program, SVCW will increase WWTP capacity to 80 mgd as needed.

Assuming that 90 percent[23] of the net amount of water used indoors by the Proposed Project (approximately 12.8 mgy) would become wastewater, the estimated net increase in wastewater generation would be approximately 11.5 mgy, or about 0.031 mgd. This increase in wastewater generation would not be significant relative to the currently available excess dry-weather design flow capacity of 15.5 mgd (i.e., 29 mgd design flow minus 13.5 mgd current average flow = 15.5 mgd) or its excess wet-weather design flow capacity of 57.5 mgd (i.e., 71 mgd design flow minus 13.5 mgd current average flow= 57.5 mgd) at the SVCW WWTP. Estimated wastewater flows from the Proposed Project would therefore represent a very small percentage of the total daily wastewater capacities of the SVCW WWTP. Likewise, wastewater generation with the Proposed Project (i.e., maximum of approximately 11.5 mgy) would not be significant relative to current average collection rates at the WBSD. Therefore, the impact would be ***less than significant***.

Cumulative Impacts

The geographic context for the analysis of cumulative impacts on utilities and service systems consists of the service areas of the water and wastewater treatment providers for the Project site and therefore relies on a projection approach.

Impact C-UT-1: Cumulative Water and Wastewater. A significant cumulative impact on the water and wastewater treatment service providers would not occur with implementation of the Proposed Project. (LTS)

As stated under Impact POP-1, the Proposed Project, which would not include housing, would not indirectly induce substantial population growth (e.g., through job growth) or result in adverse direct impacts on the physical environment. It is estimated that approximately 1,996 employees would occupy

[23] ConnectMenlo EIR assumes 90 percent of indoor water becomes wastewater. Therefore, 90 percent is used here for consistency.

the proposed new building at full buildout of the Proposed Project. This increase in the number of employees is considered part of planned growth. It is consistent with and accounted for in the planning documents and growth forecasts of the City of Menlo Park, such as ConnectMenlo, and for the region, such as those from the Association of Bay Area Governments. The increased demand for water and wastewater as a result of the Proposed Project is discussed above.

Construction and operation of the Proposed Project would not require the relocation of existing or the construction of new water or wastewater treatment infrastructure. The overall increase in water demand as well as wastewater generation as a result of the Proposed Project would be minimal considered in the context of existing capacity as well as existing demand, as described above. Therefore, the Proposed Project would not have a significant effect on the ability of water and wastewater service providers to meet existing demands and commitments in combination with construction and operation of the Proposed Project. Therefore, the Proposed Project's contribution to impacts on utilities and service systems, including water and wastewater treatment systems, combined with related past, present, and reasonably foreseeable future projects would not be significant. However, future growth within the service areas of the water and wastewater service providers could increase future demands on infrastructure and service systems. Therefore, future growth would be subject to approval from the local jurisdictions. Specifically, should such future growth occur, the respective decision-making jurisdictions would be required to determine the need for increased water and wastewater services to support whatever new development is proposed or approved. Such development would be required to undergo CEQA analysis to identify potential impacts on existing water and wastewater infrastructure and service systems.

The Proposed Project would not induce future growth directly. As to subsequent unplanned growth and the extent of its demand on water or wastewater systems, any analysis at this point would be speculative. Therefore, the Proposed Project in combination with future demand in the service areas of the existing water and wastewater service providers is not expected to result in significant cumulative impacts. The Proposed Project when considered with past, existing, and probable future projects would not create a significant cumulative impact, and cumulative impacts would be ***less than significant***.

3.7 Cultural Resources and Tribal Cultural Resources

This section describes the affected environment and regulatory setting for cultural resources and tribal cultural resources. The term *cultural resources* refers to built-environment resources (e.g., buildings, structures, objects, districts), archaeological resources, and human remains. The term *tribal cultural resources* is defined in Public Resources Code Section 21074. Included in this section are brief descriptions of the prehistoric and historic setting of the Project site. Finally, applicable federal, state, and local regulations are identified, followed by impact analyses and mitigation measures, as applicable, to reduce potentially adverse impacts on cultural resources and tribal cultural resources.

No Project-specific issues were identified in response to the Notice of Preparation (Appendix 1-2).

Existing Conditions

Environmental Setting

The environmental setting for the Proposed Project consists of existing conditions as well as relevant historical conditions within the CEQA study area, which is limited to the Project site and all adjoining parcels. A study area is delineated to consider potential impacts on built-environment and archaeological resources caused by Project activities, including ground disturbances and alterations, relocations, and building and/or structure demolition at the Project site. The Proposed Project could also result in changes to the setting of significant built-environment resources adjacent to the Project site, which could diminish the integrity of such resources and reduce their ability to convey their historical significance.

The subsections below describe development within the study area, including the general physical attributes of associated properties; provide a brief overview of development within Menlo Park, including the Project site, related to cultural resources and tribal cultural resources; present a summary of known built-environment and archaeological resources that were evaluated as historical resources, pursuant to CEQA; and establish the potential for the Project site to contain as-yet undocumented archaeological resources, human remains, and tribal cultural resources.

Prehistoric Setting

The Project site is located on the southwest edge of the San Francisco Bay Area. The San Francisco Bay–Delta Cultural Sequence, often referred to as the Central California Taxonomic System, was defined according to the stylistic variation in artifacts from burials found in the lower Sacramento Valley.[1] Over time, this sequence was refined as research yielded new clues to early development of the Bay Area.

[1] Lillard, J., R. Heizer, and F. Fenenga. 1939. *An Introduction to the Archaeology of Central California.* Department of Anthropology Bulletin 2. Sacramento Junior College, Sacramento, CA.

The following summaries are extracted from a cultural resources investigation by Byrd and Meyer (2011),[2] which relied on several studies, including Milliken et al. (2007),[3] Rosenthal and Meyer (2004),[4] and Moratto (1984).[5]

Terminal Pleistocene (13,500–11,600 calibrated years before present [cal BP]). The Terminal Pleistocene is largely contemporaneous with the Clovis and Folsom periods of the Great Plains and the Southwest and generally considered to be represented by wide-ranging, mobile hunters and gatherers who regularly exploited large game.[6] Throughout California, the Terminal Pleistocene is most often represented by isolated fluted points.[7,8]

Early Holocene (11,600–7700 cal BP). Early Holocene prehistoric material in the Bay Area is sparse; only four sites date to this period, two sites at Los Vaqueros Reservoir (Contra Costa County [CCO]-696 and -637) in the East Bay, the Blood Alley site (Santa Clara County [SCL]-178) in the Coyote Narrows of the Santa Clara Valley, and SCR-177 at Scott's Valley in the Santa Cruz Mountains.[9,10,11] Their deposits, which indicate diverse resource exploitation, demonstrate that the general region was occupied throughout this time segment, but strong insight into the nature of early occupational trends is still lacking.

Middle Holocene (7700–4000 cal BP). In the Bay Area, Middle Holocene assemblages can include various types of groundstone; points; chopping, scraping, and pounding implements; and shell beads and ornaments.[12,13] Exploitation of the Bay's estuary, mud flats, and freshwater tidal marshes was

2 Byrd, B.F., and J. Meyer. 2011. *Initial Cultural Resources Investigation, San Francisquito Creek Flood Damage Reduction and Ecosystem Restoration Project, Santa Clara and San Mateo Counties, California*. Redacted version. Prepared for Kristin O'Kane, Santa Clara Water District, San José, CA.

3 Milliken, R., R.T. Fitzgerald, M.G. Hylkema, R. Groza, T. Origer, D.G. Bieling, A. Leventhal, R.S. Wiberg, A. Gottsfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, and D.A. Fredrickson. 2007. Punctuated Change in the San Francisco Bay Area. In *California Prehistory: Colonization, Culture, and Complexity,* Terry L. Jones and Kathryn A. Klar (eds.). Chapter 8, pp. 99–123. Altamira Press, New York, NY.

4 Rosenthal, J.S., and J. Meyer. 2004. *Landscape Evolution and the Archaeological Record: A Geoarchaeological Study of the Southern Santa Clara Valley and Surrounding Region*. Center for Archaeological Research at Davis, Publication 14, University of California, Davis, CA.

5 Moratto, M. 1984. *California Archaeology*. Academic Press, New York, NY.

6 Haynes, G.M. 2002. *The Early Settlement of North America: The Clovis Era*. Cambridge University Press, Cambridge.

7 Erlandson, J., T.C. Rick, T.L. Jones, and J.F. Porcasi. 2007. One If by Land, Two If by Sea: Who Were the First Californians? In *California Prehistory: Colonization, Culture, and Complexity*, T.L. Jones and K. Klar (eds.), pp. 53–62. Altamira Press, Walnut Creek, CA.

8 Rondeau, M.F., J. Cassidy, and T.L. Jones. 2007. Colonization Technologies: Fluted Projectile Points and the San Clemente Island Woodworking/Microblade Complex. In *California Prehistory: Colonization, Culture, and Complexity*, T.L. Jones and K. Klar (eds.), pp. 63–70. Altamira Press, New York, NY.

9 Cartier, R. 1993. *The Scotts Valley Site: CA-SCR-177*. Santa Cruz Archaeological Society, Santa Cruz, CA.

10 Hildebrandt, W. R. 1983. *Archaeological Research of the Southern Santa Clara Valley Project: Based on a Data Recovery Program from Sites CA-SCl-54, CA-SCl-163, CA-SCl-178, CA-SCl-237, and CA-SCl-241 Located in the Route 101 Corridor, Santa Clara County, California*. Daniel, Mann, Johnson, and Mendenhall and San José State University, Los Angeles and San José. Submitted to California Department of Transportation, District 4, San Francisco, CA. Report S-6369. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, CA.

11 Meyer, J., and J.S. Rosenthal. 1997. Archaeological and Geoarchaeological Investigations at Eight Prehistoric Sites in the Los Vaqueros Reservoir Area, Contra Costa County. In *Los Vaqueros Project Final Report.* Anthropological Studies Center, Sonoma State University, Rohnert Park, CA. Submitted to the Contra Costa Water District, Concord, CA. Report on file, Northwest Information Center, Sonoma State University, Rohnert Park, CA.

12 Fitzgerald, R.T., Jr. 1993. *Archaic Milling Cultures of the Southern San Francisco Bay Region*. G.S. Breschini and T. Haversat (eds.). Coyote Press Archives of California Prehistory, Number 35. Coyote Press.

13 Meyer, J., and J.S. Rosenthal. 1998. *An Archaeological Investigation of Artifacts and Human Remains from CA-CCO-637, Los Vaqueros Project Area, Contra Costa County, California*. Anthropological Studies Center, Sonoma State Academic Foundation, Inc., Rohnert Park, CA. Submitted to Contra Costa Water District, Concord, CA.

common, and the presence of a diverse range of habitation sites, including the basal layers of some Bay-margin shell mounds, suggests higher population levels, more complex adaptive strategies, and longer seasonal occupation than during the early Holocene. Notable sites in the vicinity of the Project site include SCL-484, -674, and -832; SMA-269 and -273; and SFR-28, all of which contained several isolated human burials.

Late Holocene (4000–170 cal BP). The Late Holocene is generally divided into five "slices," based on specific types of shell beads. The period is well documented in the Bay Area; more than 200 sites reflect widespread occupation by complex hunter-gatherers.[14] Important mounds along the Peninsula margins include the University Village site (SMA-77), the San Bruno Mountain Mound (SMA-40), and the Ynigo Mound (SCL-12/H).[15,16,17] The artifact assemblages include various types of beads and pendants, bone tools, "flower pot" mortars, and the bow and arrow. Funerary rituals were strongly patterned and included flexed interments and "killed" grave offerings, along with occasional cremations. Extensive trade relations also appear to have flourished with neighboring groups.

Ethnographic Setting

Menlo Park is situated within territory once occupied by the Costanoan, also commonly referred to as Ohlone. Eight Ohlone languages were spoken in the area, from the southern edge of the Carquinez Strait to portions of the Big Sur and Salinas Rivers south of Monterey Bay as well as areas approximately 50 miles inland from the coast. Mountain View lies on the approximate ethnolinguistic boundary between the Tamyen and Ramaytush languages. Tamyen, or Santa Clara Costanoan, was spoken around the south end of San Francisco Bay and in the lower Santa Clara Valley; it seems to have had about 1,200 speakers. Ramaytush, or San Francisco Costanoan, was spoken by about 1,400 people in San Mateo and San Francisco Counties.[18]

Ohlone territories were composed of one or more land-holding groups that anthropologists refer to as *tribelets*. The tribelet consisted of a principal village that was occupied year-round; smaller hamlets and resource gathering and processing locations were occupied intermittently or seasonally.[19] The Puichon tribelet was on the western shore of San Francisco Bay, between lower San Francisquito Creek and lower Stevens Creek, now the areas where Menlo Park, Palo Alto, and Mountain View are located.[20]

Seven Spanish missions were founded in Ohlone territory between 1776 and 1797. While living within the mission system, the Ohlone commingled with other groups, including the Yokuts, Miwok, and Patwin. Members of the Puichon tribelet went to Mission San Francisco between 1781 and 1794 and Mission Santa

[14] Milliken, R., R.T. Fitzgerald, M.G. Hylkema, R. Groza, T. Origer, D.G. Bieling, A. Leventhal, R.S. Wiberg, A. Gottsfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, and D.A. Fredrickson. 2007. Punctuated Change in the San Francisco Bay Area. In *California Prehistory: Colonization, Culture, and Complexity,* Terry L. Jones and Kathryn A. Klar (eds.). Chapter 8, pp. 99–123. Altamira Press, New York, NY.

[15] Byrd, B.F., and J. Berg. 2009. *Phase II Excavations in the Caltrans Right-of-Way at CA-SCL-12/H, Santa Clara County, California*. (04-SCL-101/237 PM 46.10-46.3.) Prepared for Caltrans District 4.

[16] Clark, M. 1989 (revised 1998). *Evaluative Archaeological Investigations at the San Bruno Mountain Mound Site, CA-SMA-40, South San Francisco, California*. Report on file, Northwest Information Center, Sonoma State University, Rohnert Park, CA.

[17] Gerow, B.A., with R.W. Force. 1968. *An Analysis of the University Village Complex: With a Reappraisal of Central California Archaeology.* Stanford University Press, Stanford, CA.

[18] Levy, R. 1978. Costanoan. In *Handbook of North American Indians*, Chapter 8, California, pp. 398–413. W.C. Sturtevant (ed.). Smithsonian Institution, Washington, DC.

[19] Kroeber, A.L. 1955. Nature of the Land-Holding Group. In *Ethnohistory* 2:303–314.

[20] Milliken, R. 1995. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769–1810.* Ballena Press Anthropological Papers No. 43. Ballena Press, Novato, CA.

Clara from 1781 to as late as 1805. Mission life was devastating to the Ohlone population.[21] When the first mission was established in Ohlone territory in 1776, the Ohlone population was estimated to have been 10,000. By 1832, the Ohlones numbered less than 2,000 as a result of introduced disease, harsh living conditions, and reduced birth rates.[22,23,24]

Ohlone recognition and assertion began to move to the forefront during the early 20th century. This movement was enforced by legal suits brought against the United States government by the Indians of California (1928–1964) for reparation due to them for the loss of traditional lands. The Ohlone participated in the formation of political advocacy groups, which brought attention to the community and resulted in a re-evaluation of the rights due to its members.[25] In recent years, the Ohlone have become increasingly organized as a political unit and developed an active interest in preserving their ancestral heritage. Many Ohlones are active in maintaining their traditions and advocating for Native American issues.

Historic-Era Development

Menlo Park

In the 1850s, Irish immigrants Dennis Oliver and Daniel McGlynn bought 1,700 acres along County Road, known today as El Camino Real, on the San Francisco Peninsula, approximately 20 miles south of current-day San Francisco. Oliver and McGlynn gave Menlo Park its name when they established "Menlough," a series of local farms named after their ancestral community. A few years later, Menlo Park became a desirable vacation destination for San Francisco's upper class. Palatial houses were constructed on large parcels in the burgeoning community. El Camino Real served as a major thoroughfare. Historic downtown Menlo Park ultimately developed along this route. Completion of the Southern Pacific Railroad (SPRR) through Menlo Park in 1863, and its connection to San José 1 year later, exponentially increased Menlo Park's accessibility to city dwellers who were seeking leisure in a rural environment. By 1874, Menlo Park incorporated in response to its rapid growth and infrastructure challenges.[26]

Through the late 19th and early 20th centuries, Menlo Park underwent several transformative events. Stanford University opened in 1891 south of Menlo Park, which strengthened the local economy. From 1907 to 1910, the SPRR constructed the Dumbarton Cutoff Line through northern Menlo Park, which provided a 16.4-mile freight connection from the SPRR San Francisco Peninsula mainline to the Alameda County mainline. A bridge built to carry the Dumbarton Cutoff across San Francisco Bay was the earliest structure to span the Bay. Furthermore, Menlo Park was chosen as the location for Camp Fremont, a World War I–era military training ground that brought in thousands of temporary

[21] Ibid.

[22] Cook, S.F. 1943a. The Conflict between the California Indians and White Civilization, I: The Indian Versus the Spanish Mission. In *Ibero-Americana* 21. Berkeley, CA.

[23] Cook, S.F. 1943b. The Conflict between the California Indians and White Civilization, II: The Physical and Demographic Reaction of the Non-Mission Indians in Colonial and Provincial California. In *Ibero-Americana* 22. Berkeley, CA.

[24] Levy, R. 1978. Costanoan. In *Handbook of North American Indians*, Chapter 8, California, pp. 398–413. W.C. Sturtevant (ed.). Smithsonian Institution, Washington, DC.

[25] Bean, L.J. 1994. *The Ohlone Past and Present: Native Americans of the San Francisco Bay Region*. Ballena Press, Menlo Park, CA.

[26] PlaceWorks. 2016. *ConnectMenlo: General Plan Land Use and Circulation Elements and M-2 Area Zoning Update.* June 1. Public review draft EIR. Prepared for City of Menlo Park, CA.

inhabitants; Menlo Park's population of approximately 2,000 increased to approximately 40,000 during World War I. Numerous new businesses opened, and city improvements were undertaken during camp operations. These improvements remained to serve the growing city after the camp closed.[27]

During the subsequent decades, Menlo Park developed from a small town to an important part of the increasingly urbanized San Francisco Peninsula region. Menlo Park's population rose from 2,414 residents in 1930 to 26,836 by 1970. In the 1920s and 1930s, Menlo Park's transportation infrastructure began to expand outward from downtown with the growth of its residential neighborhoods. By the late 1930s, El Camino Real expanded to four lanes, which resulted in the demolition, relocation, or closure of several Menlo Park businesses. Simultaneously, the Belle Haven neighborhood, approximately 4 miles north of downtown Menlo Park and adjacent to San Francisco Bay, was developed by David D. Bohannon, with two-bedroom homes selling for as little as $2,950.[28]

Development of the entire San Francisco Peninsula continued during the mid-20th century, and Menlo Park became a de facto suburb of San Francisco. During this period, Menlo Park became a major technology hub, both regionally and globally. The Stanford Research Institute was established in 1946. By 1970, it was known as SRI International; it remains headquartered in Menlo Park. By the late 1950s, a white-collar industrial development market sprouted in Menlo Park, as in many of the nation's suburbs. Beginning in the 1980s, the rapid expansion of the technology sector increased Menlo Park's popularity. Menlo Park remains a highly sought-after residential community today. Meta, a major economic presence in the city, continues to expand, while Silicon Valley, a region that includes northwest Santa Clara County and the southern portions of the San Francisco Peninsula, houses numerous major employers in the information technology sector.[29]

Project Site

Near the Bay, Menlo Park developed light industrial plants, such as Diageo Global Supply, a distillery, bottling, and distribution plant (on the Commonwealth Site). As bayside land along the San Francisco Peninsula expanded through silt accumulation and infill projects within the wetlands, land that was undesirable for residential and retail development but level and affordable for industrial development became available. Further development of rail lines, waterfront industries, and US 101 provided essential networks for the transport of raw materials and manufactured products. Bohannon Industrial Park, which includes the Commonwealth Site and Jefferson Site, is northeast Menlo Park, with State Route (SR) 84 to the north, the Dumbarton Rail Corridor to the east, US 101 to the south, and Marsh Road to the west. This area forms a district that has been transitioning from industrial/light industrial uses to high-tech and other businesses from the late 20th century to the present.

Adjacent Parcels

The two rectangular-plan office and warehouse buildings adjacent to the Jefferson Site at 160 Jefferson Drive (assessor's parcel number [APN] 055-243-040) and 165 Jefferson Drive (APN 055-242-090) were constructed during the first half of the 1960s. The building at 160 Jefferson Drive, which is west of the Jefferson Site, was built circa 1962 to 1963 to house Lacar Enterprises, Inc., a household goods company.

[27] PlaceWorks. 2016. *ConnectMenlo*; P.S. Preservation Services. 1996. *Request for Determination of Eligibility for Inclusion in the National Register of Historic Places, Southern Pacific Railroad Dumbarton Cutoff, Southern Pacific Railroad Dumbarton Bridge, and Southern Pacific Railroad Newark Slough Bridge.* December. Sacramento, CA. Prepared for U.S. Coast Guard.

[28] PlaceWorks. 2016. *ConnectMenlo*.

[29] Ibid.

The building at 165 Jefferson Drive, which is north of the Jefferson Site, was constructed circa 1963 to 1965 to house the Wells Lamont Corporation, a glove manufacturer. By 1980, Bohannon Industrial Office Park was predominantly built out. The 1950s-era buildings within the Commonwealth Site were replaced by the current Buildings 1 and 2 in 2015; another building on the Jefferson Site was demolished at that time and replaced with a surface parking lot.

Because the buildings at 160 Jefferson Drive and 165 Jefferson Drive are more than 50 years old and adjacent to the Project site, they were evaluated for listing in the California Register of Historical Resources (California Register). Neither building has previously been evaluated for California Register listing or otherwise considered for historical resource status for the purposes of CEQA review. The buildings at 160 Jefferson Drive and 165 Jefferson Drive were recorded during an intensive-level historical resources survey on March 6, 2018, and documented on Department of Parks and Recreation (DPR) 523A (Primary Record) and 523B (Building, Structure, Object) forms. The DPR forms also document evaluations of the buildings' California Register eligibility. The DPR forms are included in Appendix B of this Initial Study (Appendix 1-2). The California Register evaluations concluded that neither historic-age building adjacent to the Project site meets the eligibility criteria for California Register listing. As a result, the buildings at 160 Jefferson Drive and 165 Jefferson Drive do not qualify as historical resources under CEQA.

Archaeological Resources

A records search was conducted at the Northwest Information Center of the California Historical Resources Information System on April 16, 2018. The Project site, as well as a 0.5-mile buffer around the site, was inspected for previously recorded archaeological resources. Although the Project footprint has not been subject to archaeological study, 15 previously recorded studies have been conducted within 0.5 mile of the Project site. Three of the studies conducted in the general Project vicinity covered areas adjacent to the Project site. These studies are detailed in the table below. The 12 other studies included seven archaeological reconnaissance projects and five evaluation and/or testing projects that focused on specific cultural resource sites.

Table 3.7-1. Cultural Resource Studies Adjacent to the Project Site

Study Number	Author	Date	Title	Findings
S-35461	G.S. Breschini	1998	n/a	This study outlines the discovery and reinternment of human remains at 1030 Crooked Creek, Los Altos, CA (P-41-000438).
S-36481	A. Whitaker, P. Kaijankowski, J. Meyer, and B. Byrd	2009	*Archaeological Survey Report for the Dumbarton Rail Corridor Project, San Mateo and Alameda Counties, California*	This study identified one resource (CA-SMA-242) within 0.5 mile of the Project area.
S-39604	A. Whitaker, P. Kaijankowski, J. Meyer, B. Byrd, and S.A. Waechter	2012	*Archaeological Survey Report for the Dumbarton Rail Corridor Project, San Mateo and Alameda Counties, California*	This study identified one resource (CA-SMA-242) within 0.5 mile of the Project area.

All resources on file at the Northwest Information Center.

One previously recorded cultural resource was identified within the Project site during archaeological monitoring in 2015 when Commonwealth Building 2 was constructed. This resource is located under the existing Building 2.

> **P-41-002415 (CA-SMA-425)** – This resource, an inadvertent discovery encountered during construction, consists of a discrete concentration of very dark midden soil with shell, mammal bone, charcoal, and stone tool debris. This deposit is within an apparent pit feature that has been excavated into sterile subsurface sediments. Radiocarbon dating returned dates that suggest that heaviest activity occurred during the Middle/Late-Transition Period (circa AD 700 to 1200).[30]

Eight previously recorded cultural resources were identified outside the Project site but within 0.5 mile. Five of these were historic-era built resources; the remaining three were precontact archaeological resources. These resources are detailed below (Table 3.7-2).

Assembly Bill 52 Consultation

To identify tribal cultural resources within the vicinity of the Project site, the Native American Heritage Commission (NAHC) was contacted on March 18, 2019, and asked to provide a list of California Native American tribes that are geographically affiliated with the Project site.[31] A search of the NAHC's Sacred Lands File (SLF) was also requested. On March 19, 2019, the NAHC responded with a list of six individuals for consultation; the SLF did not identify any resources within the vicinity of the Project site. Letters with Project details, a location map, and a request for consultation were sent on March 27 and 29, 2019, to the following local California Native American tribes:

- Costanoan Rumsen Carmel Tribe
- The Ohlone Indian Tribe
- Amah Mutsun Tribal Band
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- Indian Canyon Mutsun Band of Costanoan
- Amah Mutsun Tribal Band of Mission San Juan Bautista

Follow-up phone calls were conducted on April 24, 2019, resulting in input from two of the tribes listed above. The Indian Canyon Mutsun Band of Costanoan representative did not have any information regarding tribal cultural resources, as defined by AB 52, but requested that an archaeological monitor and a tribal monitor be onsite during any ground-disturbing activities. If any Native American burials are encountered, the representative also requested that the remains be repatriated in the vicinity where they were originally found. The Amah Mutsun Tribal Band of Mission San Juan Bautista representative did not have any information regarding tribal cultural resources but indicated that the area is sensitive for archaeological resources and requested that an archaeological monitor be present during ground disturbance. If any Native American resources are identified, the representative requested that a tribal monitor also be present onsite. None of the other four tribes responded to letters, emails, or telephone calls. No further consultation has been conducted.

[30] Garlinghouse, T. 2015. *Site Record for P-41-002415* (CA-SMA-425). On file at the Northwest Information Center, Rohnert Park, CA.

[31] Although the ConnectMenlo EIR is applicable to the Proposed Project, pursuant to Assembly Bill 52, the current Project is considered separate; therefore, it requires separate consultation with California Native American tribes and review of potential impacts on tribal cultural resources.

Table 3.7-2. Previously Recorded Resources within 0.5 mile of the Project Area

Trinomial	P-Number	Date	Author	Description
CA-SMA-275	P-41-000270	1987; 2013	B. Bocak, C. Canzonieri	This resource was originally recorded as a disturbed shell midden, which was located during a surface survey. Shell, lithics, and fire-cracked rock were visible in open, non-landscaped areas. The resource was revisited in 2013 when portions of the midden were encountered during construction along Bay Street. Those portions are thought to be secondary deposits that were relocated during previous construction along Bay Street. Although the 2013 deposits are recommended as not eligible for listing in the National Register of Historic Places (National Register), some potential exists for encountering additional, and possibly eligible, deposits in the area.
CA-SMA-242	P-41-000282	2008	ASC, A. Whitaker	This resource was originally recorded as a medium-density shell midden deposit with fire-cracked rock, charcoal, baked clay, lithics, and human remains. The site was revisited in 2008 and inspected for any remaining surface indicators. No evidence of the site was visible on the surface at that time. However, some potential still exists for encountering subsurface deposits.
CA-SMA-351	P-41-000438	1998	Archaeological Consulting	This resource consists of human remains encountered during construction activities. The remains were reburied in the same location and covered with a concrete footing.
n/a	P-41-001515	1986	D.R. Newmark	Flood Park was nominated as a Point of Historical Interest in 1986 for its creative use of financial, material, and human resources during the Depression era. Around 1937, the park received federal funding from the Works Progress Administration.
n/a	P-41-002351	n/a	Archaeological Consulting	This resource consists of the Ravenswood Salt Works, which includes seven salt ponds encircled by a levee. The resource is not recommended as eligible for listing in the National Register.
n/a	P-41-002404	2014	L. Speulda-Drews	This resource consists of a small rectangular pump house, circa 1948, and is recommended as ineligible for listing in the National Register.
n/a	P-41-002419	2015	D. Shoup	This resource consists of a 0.9-acre parcel with a one-story, 12,000 sf industrial building, circa 1965. The resource is not recommended as eligible for listing in the National Register.
n/a	P-41-002450	2016	J. Murphy	This resource consists of a commercial building, circa 1963. The resource is recommended as ineligible for listing in the National Register.

All resources on file at the Northwest Information Center.

Regulatory Setting

Federal

National Historic Preservation Act, Section 106

Although the Proposed Project is not anticipated to require compliance with Section 106 of the National Historic Preservation Act, the Nation Register and federal guidelines related to the treatment of cultural resources are relevant for the purpose of determining whether significant cultural resources, as defined under CEQA, are present and guiding the treatment of such resources.

National Historic Preservation Act and National Register of Historic Places

Built-environment and archaeological resources are protected through the National Historic Preservation Act (16 United States Code 470f), which requires a review of effects on historic properties only when projects involve federal funding or permitting or occur on federal land; therefore, it is not applicable to discretionary actions at the municipal level. However, the National Historic Preservation Act establishes the National Register, which provides a framework for resource evaluation and informs the process for determining impacts on historical resources under CEQA.

The National Register is the nation's official comprehensive inventory of historic resources. Administered by the National Park Service, the National Register includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Typically, a resource that is more than 50 years of age is eligible for listing in the National Register if it meets any one of the four eligibility criteria *and* retains sufficient historical integrity. A resource less than 50 years old may be eligible if it can be demonstrated that it is of "exceptional importance" or a contributor to a historic district. National Register criteria are defined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation*.

Properties that are listed in the National Register, as well as properties that are formally determined to be eligible for listing in the National Register, are automatically listed in the California Register, described below, and therefore considered historical resources under CEQA.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (16 United States Code [U.S.C.] 470aa et seq.) was enacted in 1979 to provide more effective law enforcement and protect public archaeological sites. The Archaeological Resources Protection Act provides detailed descriptions of prohibited activities and larger financial and incarceration penalties for convicted violators.

Archaeological and Historic Preservation Act

This act (16 U.S.C. Sections 469–469[c]-2) provides for preserving significant historic or archaeological data that may otherwise be irreparably lost or destroyed by construction of a project through a federal agency or under a federally licensed activity or program. This includes relics and specimens.

State

California Environmental Quality Act

CEQA, as codified in Public Resources Code Section 21000 et seq. and implemented by the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.), is the principal statute governing environmental review of projects in California. CEQA defines a historical resource as a property listed in, or eligible for listing in, the California Register; included in a qualifying local register; or determined by a lead agency to be historically significant. In order to be considered a historical resource, a property must generally be at least 50 years old. Section 21084.1 of the Public Resources Code and Section 15064.5 of the CEQA Guidelines define a historical resource for purposes of CEQA.

CEQA requires lead agencies to determine if a project would have a significant effect on important historical resources or unique archaeological resources. If a resource is neither a unique archaeological resource nor a historical resource, the CEQA Guidelines note that the effects of a project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5[c][4]). In addition, projects that comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties benefit from a regulatory presumption under CEQA that they would have a less-than-significant impact on a historical resource (14 California Code of Regulations 15126.4[b][1]). Projects that do not comply with the secretary's standards may or may not cause a substantial adverse change in the significance of a historical resource and may be subject to further analysis to assess whether they would result in material impairment of a historical resource's significance.

Under CEQA, a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter the physical characteristics that convey the property's historical significance and qualify it for inclusion in the California Register, the National Register, or in a local register or survey that meets the requirements of Public Resources Code Sections 5020.1(k) and 5024.1(g).

California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and indicating which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (Public Resources Code Section 5024.1[a]). The California Register criteria are based on the National Register criteria (Public Resources Code Section 5024.1[b]). Certain resources are determined by CEQA to be automatically included in the California Register, including California properties that were formally eligible for or listed in the National Register. To be eligible for the California Register as a historical resource, a resource must be significant at the local, state, and/or federal level under one or more of the evaluative criteria below, as defined in Public Resources Code Section 5024.1(c).

1. The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. The resource is associated with the lives of persons important in our past.
3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
4. The resource has yielded, or may be likely to yield, information important in prehistory or history.

As with the National Register, a significant historical resource must possess integrity in addition to meeting the significance criteria to be considered eligible for listing in the California Register. Consideration of integrity for evaluation of California Register eligibility follows the definitions and criteria from National Park Service *National Register Bulletin 15*.

Assembly Bill 52

Tribal cultural resources were originally identified as a distinct CEQA environmental category with the adoption of Assembly Bill (AB) 52 in September 2014. For projects that are subject to CEQA and received a notice of preparation, notice of negative declaration, or mitigated negative declaration on or after July 1, 2015, AB 52 requires the lead agency to consult with the geographically affiliated California Native American tribes. The legislation creates a broad, new category for environmental resources, "tribal cultural resources," which must be considered under CEQA. AB 52 requires a lead agency to not only consider the resource's scientific and historical value but also whether it is culturally important to a California Native American tribe.

AB 52 defines tribal cultural resources as sites, features, places, cultural landscapes, sacred places, or objects with cultural value to a California Native American tribe that are included in or determined to be eligible for inclusion in the California Register; included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k); or determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria of Public Resources Code Section 5024.1(c) (CEQA Section 21074).

AB 52 also sets up an expanded consultation process. For projects initiated after July 1, 2015, lead agencies are required to provide notice of the proposed projects to any tribe that is traditionally and culturally affiliated with the geographic area that requested to be informed by the lead agency, following Public Resources Code Section 21018.3.1(b). If, within 30 days, a tribe requests consultation, the consultation process must begin before the lead agency can release a draft environmental document. Consultation with the tribe may include discussion of the type of review necessary, the significance of tribal cultural resources, the significance of a project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The consultation process will be deemed concluded when either (a) the parties agree to mitigation measures or (b) any party concludes, after a good-faith effort, that an agreement cannot be reached. Any mitigation measures agreed to by the tribe and lead agency must be recommended for inclusion in the environmental document. If a tribe does not request consultation, or otherwise assist in identifying mitigation measures during the consultation process, a lead agency may still consider mitigation measures if the agency determines that a project will cause a substantial adverse change to a tribal cultural resource.

Assembly Bill 168

AB 168, adopted in September 2020, provides additional protection for tribal cultural resources, as defined in AB 52. This bill applies to situations in which a developer seeks to streamline approval under SB 35 and, in so doing, bypass CEQA requirements. AB 168 rectifies a loophole in SB 35 that allowed developers to apply for fast-tracked approval without notifying Native American tribes that were affiliated with a project area. Instead, under AB 168, a project would be ineligible for SB 35 and subject to CEQA if (a) the site of the proposed development is a tribal cultural resource that is on a national, state, tribal, or local historic register; (b) the local government and the California Native American tribe do not agree that no potential tribal cultural resource would be affected by the proposed development; or (c) the local government and California Native American tribe find that a potential tribal cultural resource could

be affected by the proposed development and the parties do not document an enforceable agreement regarding the methods, measures, and conditions for treatment of those tribal cultural resources, as provided.

Local

Menlo Park General Plan

The City General Plan—specifically, the Land Use Element and Open Space/Conservation Element, Noise Element, and Safety Element—contains general goals, policies, and programs that require local planning and development decisions to consider impacts on cultural resources. The following City General Plan goals and policies are related to cultural resources within the Project site:

Goal LU-7: Sustainability Services. Promote the implementation and maintenance of sustainable development, facilities, and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

Policy LU-7.8: Cultural Resource Preservation. Promote preservation of buildings, objects, and sites with historic and/or cultural significance.[32]

Goal OSC-3: Protect and Enhance Historic Resources. Protect and enhance cultural and historical resources for their aesthetic, scientific, educational, and cultural values.

Policy OSC-3.1: Prehistoric or Historic Cultural Resources Investigation and Preservation. Preserve historical and cultural resources to the maximum extent practical.

Policy OSC-3.2: Prehistoric or Historic Cultural Resources Protection. Require significant historic or prehistoric artifacts to be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation and to ensure compliance with local, state, and federal regulations.

Policy OSC-3.3: Archaeological or Paleontological Resources Protection. Protect prehistoric or historic cultural resources either onsite or through appropriate documentation as a condition of removal. When a development project has sufficient flexibility, require avoidance or preservation of the resources as the primary form of mitigation, unless the City identifies superior mitigation. If resources are documented, undertake coordination with descendants and/or stakeholder groups, as warranted.

Policy OSC-3.4: Prehistoric or Historic Cultural Resources Found during Construction. If cultural resources, including archaeological or paleontological resources, are uncovered during grading or other onsite excavation activities, require construction to stop until appropriate mitigation is implemented.

Policy OSC-3.5: Consultation with Native American Tribes. Consult with those Native American tribes with ancestral ties to the Menlo Park city limits regarding City General Plan amendments and land use policy changes.

[32] City of Menlo Park. 2016. *ConnectMenlo: Menlo Park Land Use and Mobility Update*, *City of Menlo Park General Plan.* Adopted: November 29. Available: https://www.menlopark.org/DocumentCenter/View/15014/Land-Use-Element_adopted-112916_final_figures?bidId=. Accessed: April 28, 2021.

Policy OSC-3.6: Identification of Potential Historic Resources. Identify historic resources for the historic district in the City Zoning Ordinance and require design review of proposals affecting historic buildings.[33]

Environmental Impacts

This section describes the impact analysis related to cultural and tribal resources for the Proposed Project. It describes the methods used to determine the impacts of the Proposed Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, as needed.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Proposed Project would have a significant effect if it would result in any of the conditions listed below.

Cultural Resources

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.

Tribal Cultural Resources

- 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:
  a) Listed or eligible for listing in the California Register or in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), or
  b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Methods for Analysis

As discussed above, a records search was conducted at the Northwest Information Center of the California Historical Resources Information System on April 16, 2018. In addition, to identify tribal cultural resources within the vicinity of the Project site, the NAHC was contacted on March 18, 2019, and asked to provide a list of California Native American tribes that are geographically affiliated with the Project site.

[33] City of Menlo Park. 2013. *Open Space/Conservation, Noise, and Safety Elements, at Home in Menlo Park*, *City of Menlo Park General Plan.* Adopted: May 21. Available: https://www.menlopark.org/DocumentCenter/View/234/Open-Space-and-Conservation-Noise-and-Safety-Elements?bidId=. Accessed: April 28, 2021.

Summary of Analysis in the ConnectMenlo EIR

The ConnectMenlo EIR analyzed the impacts below that would result from implementing the updates to the Land Use and Circulation Elements and the M-2 Area Zoning Update.[34]

- Impacts related to historical resources were analyzed in the ConnectMenlo EIR as Impact CULT-1 (pages 4.4-12 to 4.9-15). It was determined that impacts on historical resources would be significant if they would lead to demolition or alteration with the potential to change the historic fabric or setting of historic architectural resources. Mitigation Measure CULT-1 (page 4.4-15) requires an individual project that is proposed on or adjacent to a site with a building that is more than 50 years old to prepare a site-specific evaluation.
- Impacts related to archaeological resources were analyzed in the ConnectMenlo EIR as Impact CULT-2 (pages 4.4-16 to 4.9-18). It was determined that impacts would be less than significant with implementation of Mitigation Measures CULT-2a and CULT-2b. Mitigation Measure CULT-2a would be applied if archeological resources are found during construction. In addition, per Mitigation Measure CULT-2b, Native American tribes would be consulted.
- Impacts related to human remains were analyzed in the ConnectMenlo EIR as Impact CULT-4 (page 4.4-20). It was determined that impacts would be less than significant with implementation of Mitigation Measure CULT-4. This mitigation measure would provide guidance if human remains are encountered during ground disturbance.
- Impacts related to tribal cultural resources, as defined by Public Resources Code Section 21074, were analyzed in the ConnectMenlo EIR as Impact CULT-5 (pages 4.4-21). Impacts were determined to be less than significant with implementation of Mitigation Measures CULT-2a, CULT-2b, and CULT-4 from the ConnectMenlo EIR.

Impacts Not Evaluated in Detail

The Project site contains no historic-age buildings; Buildings 1 and 2 were constructed in 2015. Two historic-age buildings adjacent to the Project site, 160 Jefferson Drive and 165 Jefferson Drive, were constructed during the first half of the 1960s and, therefore, have reached the age at which they could qualify as eligible for listing in the California Register. However, as presented above, neither of the historic-aged buildings qualifies as a CEQA historical resource. Therefore, the Proposed Project would not have the potential to alter the significant characteristics of historical resources for the purposes of CEQA. This issue was scoped out in the Initial Study, and no further study is required.

Impacts and Mitigation Measures

Impact CR-1: Archaeological Resources. The Proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. (LTS/M)

As stated above, one precontact archaeological resource (CA-SMA-425) was identified within the Project site during literature review at the Northwest Information Center. Specifically, this resource, which was identified from monitoring efforts for the Commonwealth Corporate Center Project in 2015, is beneath

[34] City of Menlo Park. 2016. *ConnectMenlo: General Plan Land Use and Circulation Elements and M-2 Zoning Update for the City of Menlo Park*. June 1. Prepared by PlaceWorks, Berkeley, CA. Menlo Park, CA. Available: https://www.menlopark.org/1013/Environmental-Impact-Report. Accessed: March 19, 2021.

the existing Building 2. Because of the amount of development and disturbance in the area, this resource is believed to be the only archaeological material remaining in the area. Subsurface sediments very likely indicate the maximum depth of the deposit (i.e., approximately 100 centimeters below the ground surface).[35]

Building 2 would not be augmented as part of the current Project; therefore, no Project-related ground disturbance would occur within the vicinity of this resource. However, additional cultural studies have not been conducted in any portion of the Project site. Therefore, it is unknown whether the Project site contains additional cultural resources. Given the presence of a precontact archaeological resource within the Project site, as well as three precontact archaeological resources in the vicinity of the Project site, the Project area has a high degree of sensitivity for containing as-yet undocumented prehistoric archaeological resources.

The Project could disturb unidentified subsurface materials that have the potential to contain prehistoric archaeological resources, resulting in potentially significant impacts.

MITIGATION MEASURES. Compliance with federal, state, and local laws and regulations, including applicable ConnectMenlo EIR mitigation measures, City General Plan goals and policies, and Project-specific mitigation measures, would protect archaeological deposits within the Project site by providing archaeological resources–related sensitivity training to workers, thereby ensuring that archaeological data recovery will occur ahead of Project-related ground disturbance and allowing for early detection of potential conflicts between development and resources. In addition, compliance would allow archaeological deposits, if any exist, to convey their significance through excavation or preservation. The Proposed Project would implement ConnectMenlo EIR Mitigation Measure CULT-2a if a potentially significant subsurface cultural resource is encountered during ground-disturbing activities. ConnectMenlo EIR Mitigation Measure CULT-2b, which includes Native American consultation, has been implemented for the Proposed Project as part of the CEQA process; no further action is needed. In addition, the Project Sponsor would implement Project Mitigation Measures CR-1.1 and CR-1.2 within the main Project site, given the presence of CA-SMA-425. As a result, impacts on archaeological resources would be ***less than significant with mitigation***.

CR-1.1 *Worker Environmental Training.* Because of the potential for the discovery of unknown buried cultural and paleontological resources, prior to commencement of the first phase, the general contractor and those engaged in ground-disturbing activities shall be given environmental training regarding cultural and paleontological resource protection, resource identification and protection, and the laws and penalties governing such protection. This training may be administered by the Project archaeologist and/or paleontologist as stand-alone training or included as part of the overall environmental awareness training required as a result of the Proposed Project. The training shall include, at minimum, the following:

- The types of cultural resources that are likely to be encountered,
- The procedures to be taken in the event of an inadvertent cultural resource discovery,
- The penalties for disturbing or destroying cultural resources,
- The types of fossils that could occur at the Project site,
- The types of lithologies in which the fossils could be preserved, and
- The procedures that should be taken in the event of a fossil discovery.

[35] Garlinghouse, T. 2015. *Site Record for P-41-002415* (CA-SMA-425). On file at the Northwest Information Center, Rohnert Park, CA.

CR-1.2 *Perform Construction Monitoring, Evaluate Uncovered Archaeological Features, and Mitigate Potential Disturbance for Identified Significant Resources at the Project Site.* Prior to demolition, excavation, grading, or other construction-related activities on the Project site, the Project Sponsor shall hire a qualified professional archaeologist (i.e., one who meets the Secretary of the Interior's professional qualifications for archaeology or one under the supervision of such a professional) to monitor, to the extent determined necessary by the archaeologist, Project-related earth-disturbing activities (e.g., grading, excavation, trenching). In the event that prehistoric or historic-period subsurface archaeological features or deposits, including locally darkened soil (midden), that could conceal cultural deposits, animal bone, obsidian, and/or mortars are discovered during demolition/construction-related earthmoving activities, ConnectMenlo CULT-2a shall be followed. In addition, if the resource is a historic-era archaeological site or historic-era architectural feature and the archaeologist is not a historical archaeologist, the archaeologist shall notify a historical archaeologist or architectural historian who meets the Secretary of the Interior's professional qualifications for archaeology and/or architectural history and that person shall follow the requirements of ConnectMenlo CULT-2a. Impacts on significant resources would be mitigated to a less-than-significant level through preservation in place, capping, data recovery, or other methods determined adequate by the City that are consistent with the Secretary of the Interior's Standards for archaeological documentation.

If Native American archaeological, ethnographic, or spiritual resources are discovered, all identification and treatment of the resources shall be conducted by a qualified archaeologist. A tribal monitor chosen by the Native American tribes that requested consultation pursuant to AB 52 will be invited to participate. If a tribal monitor is present, all identification and treatment conducted by the archaeologist will be done in consultation with the tribal monitor. In the event the archaeologist and tribal monitor disagree regarding treatment after good-faith consultation, the City shall make the final decision, considering the provisions of Public Resources Code Section 21084.3(b).

CULT-2a *(ConnectMenlo EIR) Stop Work if Archaeological Material or Features Are Encountered during Ground-Disturbing Activities.* If a potentially significant subsurface cultural resource is encountered during ground-disturbing activities on any parcel in the city, all construction activities within a 100-foot radius of the find shall cease until a qualified archeologist determines whether the resource requires further study. All developers in the study area shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction activities shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of the CEQA criteria by a qualified archeologist. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan to capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analyses; prepare a comprehensive report complete with methods, results, and recommendations; and provide for the permanent curation of the recovered resources. The report shall be submitted to the City of Menlo Park, Northwest Information Center (NWIC), and State Historic Preservation Office (SHPO), if required.

Impact CR-2: Human Remains. The Proposed Project would not disturb human remains, including those interred outside of formal cemeteries. (LTS/M)

One precontact archaeological resource (CA-SMA-425) was identified within the Project site in 2015. The discovery of a Native American midden during construction of Commonwealth Building 2 increases the chance of finding human remains during the current Project. Native American middens sometimes contain human remains, and mammal bone was identified in that midden, although none was human.

Because of the amount of development and disturbance in the area, this resource is believed to be the only archaeological material remaining in the area. The resource is beneath the existing Building 2; therefore, no Project-related ground disturbance would occur in the vicinity of this resource. However, discovery of this precontact material, as well as the identification of similar resources in the general vicinity, suggests that the area has increased potential for containing as-yet undocumented archaeological deposits, including human remains. Buried deposits may be eligible for listing in the California Register. Therefore, this impact would be potentially significant.

MITIGATION MEASURES. The Proposed Project would implement ConnectMenlo EIR Mitigation Measure CULT-4 if human remains are encountered at the Project site. All work in the immediate vicinity of the discovery would cease, and necessary steps to ensure the integrity of the immediate area would be taken. In addition, Mitigation Measure CULT-2a from the ConnectMenlo EIR would be followed. Furthermore, the Project Sponsor would implement Project Mitigation Measure CR-1.1 and CR-1.2 to reduce impacts. Therefore, the Project Project's impact on human remains would be ***less than significant with mitigation***.

CULT-4 (ConnectMenlo EIR) Comply with State Regulations Regarding the Discovery of Human Remains at the Project Site. Procedures regarding conduct following the discovery of human remains citywide have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98, and California Code of Regulations Section 15064.5(e) (CEQA). According to the provisions in CEQA, if human remains are encountered at a site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. Furthermore, the San Mateo County Coroner shall be notified immediately. The coroner shall then determine whether the remains are Native American. If the coroner determines the remains are Native American, the coroner shall notify the NAHC within 24 hours, which, in turn, will notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD will have 48 hours to make recommendations regarding disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

Impact CR-3. Tribal Cultural Resources. The Proposed Project would not 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:

a) Listed or eligible for listing in the California Register or a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), or

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. (LTS/M)

A search of the NAHC SLF did not identify any tribal cultural resources in the Project area, and no tribal cultural resources were identified as a result of consultation with the Native Americans the NAHC listed as geographically affiliated with the region. However, one previously recorded precontact site was identified within with the Project footprint. Archaeological site CA-SMA-425 was identified during archaeological monitoring for the Commonwealth Corporate Center Project in 2015. The site is beneath the existing Building 2. This archaeological resource has not been identified as a tribal cultural resource. It is believed to be the last vestige of a much larger site because of the heavily disturbed nature of the Project area.

Given the presence of precontact archaeological material within the Project footprint, the numerous precontact archaeological resources in the Project vicinity, and the environment for the Project, which is similar to that where other precontact resources are located, the Project site has a high degree of sensitivity with respect to containing as-yet undocumented precontact archaeological resources. Precontact archaeological resources are sometimes considered tribal cultural resources by California Native American tribes.

Building 2 would not be augmented as part of the Proposed Project, and this resource would not be disturbed during any Project-related activities. However, although no Project-related ground disturbance would occur in the vicinity of this resource, the potential always exists for additional as-yet undocumented tribal cultural resources to be encountered during Project demolition or construction work. Furthermore, buried deposits may be eligible for listing in the California Register. Therefore, this impact would be potentially significant.

MITIGATION MEASURES. The Proposed Project would require implementation of Project Mitigation Measure CR-1.2, which concerns archaeological monitoring, during ground-disturbing activities. Furthermore, the Proposed Project would implement ConnectMenlo EIR Mitigation Measure CULT-2a if a potentially significant subsurface cultural resource is encountered during ground-disturbing activities. All construction activities within a 100-foot radius would cease until a qualified archeologist determines whether the resource requires further study. In addition, because of the potential for discovery of unknown buried cultural and paleontological resources, Project Mitigation Measure CR-1.1 would require worker training prior to construction, thereby further reducing potential impacts. The Proposed Project would implement ConnectMenlo EIR Mitigation Measures CULT-2a and CULT-4, thereby reducing impacts on the precontact archaeological resource, which has the potential to be considered a tribal cultural resource. With implementation of the measures, all work in the immediate vicinity of the discovery would cease, and necessary steps to ensure the integrity of the immediate area would be taken. Therefore, impacts related to tribal cultural resources would be ***less than significant with mitigation***.

Cumulative Impacts

Impact C-CR-1: Cumulative Impacts on Archaeological and Tribal Resources and Human Remains. Construction activities on the Project site, along with other development, would not result in impacts on archaeological and tribal resources and human remains. (LTS/M)

The projects in Menlo Park considered in this analysis are listed in Chapter 3, *Environmental Impact Analysis*. The cumulative context for archaeological resources and human remains includes urban development projects as well as transportation and streetscape improvements occurring within the Project area or within 0.25 mile that, together, could lead to ground-disturbing activities and result in impacts on archaeological resources, human remains, and tribal cultural resources. The past projects are captured by the existing environment. The present and reasonably foreseeable future projects within and surrounding the Project area include projects that would require ground disturbance during construction and, therefore, would have the potential to affect archaeological resources, human remains, and tribal cultural resources in a manner that is not captured by the existing environment.

Four present and reasonably foreseeable future projects are within 0.25 mile of the Project site, as listed below.

- 301 Constitution Drive (Citizen M Hotel)
- 301–309 Constitution Drive (Facebook Expansion)
- 150 Jefferson Drive (TIDE Academy)
- 141 Jefferson Drive (Menlo Uptown)

Taken together, the Proposed Project and the identified cumulative projects would have the potential to result in an overall cumulative impact on archaeological resources, human remains, and/or tribal cultural resources.

A known precontact archaeological resource has been identified within the Project site. Project Mitigation Measures CR-1.1 and CR-1.2 and ConnectMenlo Mitigation Measures CULT-2a and CULT-4 recommend cultural resource training, phased archaeological data recovery, archaeological monitoring, and compliance with laws regarding human remains. These measures would reduce the Proposed Project's contribution to significant cumulative impacts on archaeological resources, human remains, and tribal cultural resources to less than cumulatively considerable. All other present and reasonably foreseeable projects in Menlo Park would adhere to the mitigation measures in the ConnectMenlo EIR as well.

With implementation of mitigation measures, the contribution of the Proposed Project to impacts on archaeological resources, human remains, and tribal cultural resources would be ***less than significant with mitigation***; therefore, the Proposed Project's contribution to the significant cumulative impact would be less than cumulatively considerable.

3.8 Biological Resources

This section describes the environmental and regulatory setting for biological resources related to the Proposed Project. It also describes the potential impacts on biological resources that would result from implementation of the Proposed Project and feasible mitigation measures to reduce the impacts. This section is based on preliminary information on biological resources collected at the Project Site,[1] the *Commonwealth Corporate Center Building 3 Biological Resources Assessment* (BRA) prepared by H. T. Harvey & Associates[2] (which ICF peer reviewed), and on the Biological Resources section of the ConnectMenlo EIR. Some subsections below are taken verbatim from the BRA, while other subsections have been adapted and updated for the environmental impact report (EIR). Unless otherwise noted, the information in this section is cited to the H.T. Harvey & Associates BRA, which is included as Appendix 3.8-1. One comment regarding biological resources was received in response to the Notice of Preparation (Appendix 1-2) pertaining to potential bird collisions.

Existing Conditions

Environmental Setting

Project Site

The Project site is in a heavily urbanized part of San Mateo County near San Francisco Bay. The Study Area consists of the Project Site, which is relatively flat, and a 100-foot buffer beyond these areas that includes adjacent sensitive habitats that could be affected by the Proposed Project.

The entire Project site has been modified for human use and does not support any natural plant communities. It is dominated by urban land cover (i.e., buildings, paved parking lots, ornamental landscaping). Landscaping includes primarily nonnative tree species. Two landscaped bioretention basins occur on the eastern edge of the site.

Wildlife Habitat

The Project site provides habitat for common wildlife species that have successfully adapted to high disturbance levels, ornamental vegetation, and abundant food sources (e.g., food waste in trash cans, seeds and flowers produced by ornamental plants), which are characteristic of urban landscapes. No active bird nests were observed during surveys, but the ornamental trees provide potential nesting habitat for crows, finches, hummingbirds, and other urban nesting birds, such as Cooper's hawk (*Accipiter cooperi*), red-shouldered hawk (*Buteo lineatus*), northern mockingbird (*Mimus polyglottos*), and American robin (*Turdus migratorius*). Small burrowing mammals such as California ground squirrel (*Spermophilus beecheyi*) were observed in low numbers. Other generalist mammal species that are expected to occur on the Project site include raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), roof rat (*Rattus rattus*), Norway rat (*Rattus norvegicus*), feral and domestic cats (*Felis catus*), and striped skunk (*Mephitis mephitis*). Common urban-adapted amphibians or reptiles that may occur include Sierran treefrog (*Pseudacris sierra*) and western fence lizard (*Sceloporus occidentalis*). H. T. Harvey ecologists closely

[1] Project site visit, April 24, 2018, ICF biologist Matt Ricketts.

[2] H. T. Harvey & Associates. 2019. *Commonwealth Corporate Center Building 3 Biological Resources Assessment*. Prepared for The Sobrato Organization, Cupertino, CA. February 5. Unpublished.

examined trees for large cavities that could provide roosting habitat for bats or evidence of previous nesting by raptors (e.g., old stick nests) but observed neither. Additionally, there are no wetlands, non-wetland waters of the United States, and no sensitive natural communities present on the Project site. The Project site is not within or adjacent to any wildlife corridors.

Special-Status Plant and Animal Species

No special-status plant species are present or are expected to occur on the Project site. The site lacks natural plant communities where these species could occur because it is entirely developed and all traces of natural communities were removed when the area was filled for urban development in the early 20th century.

No special-status animal species are expected to occur on the Project site with the slight exception of pallid bat (*Antrozous pallidus*), which is a state designated Species of Special Concern (SSC), and tree-nesting raptors (identified as special-status species by the ConnectMenlo EIR). While pallid bat may on rare occasions forage over the parking lot, an examination of trees on the Project site detected no large cavities that might provide suitable bat roosting habitat; therefore, it is not expected to reside or breed on the Project site, to occur in large numbers, or otherwise to make substantial use of the Project site. Similarly, a focused survey of the Project site detected no evidence (i.e., old nests) of raptors having previously nested on the Project site and are likewise not expected to occur on the Project site. Nonetheless, tree-nesting raptors may nest in the ornamental trees near the Project site, including red-shouldered hawk and Cooper's hawk. Most species covered in the H. T. Harvey & Associates report are not expected to occur because the Project site lacks habitat, is outside their known range, and/or is isolated from the nearest known population by urban development. Although some of these species, such as western snowy plover (*Charadrius alexandrinus nivosus*), California Ridgway's rail (*Rallus obsoletus obsoletus*), salt marsh harvest mouse (*Reithrodontomys raviventris*), and salt marsh wandering shrew (*Sorex vagrans halicoetes*), are known to occur in tidal marsh or salt pond habitat of the Don Edwards San Francisco Bay National Wildlife Refuge (NWR), located approximately 2 miles to the north and east of the Project site, these habitats are isolated from the Project site by urban development. Appendix 3.8-2 includes a summary of the likelihood of occurrence on the Project site of special-status animal species known to occur, or potentially occurring, in the Project vicinity. In summary, the only two special-status species that have a small potential to occur on the Project site are pallid bat and nesting raptors.

Regulatory Setting

Federal

Federal Endangered Species Act

The ESA protects federally listed wildlife species from harm or *take*, which is broadly defined as intending to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" or attempting to engage in any such conduct. Take can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as *take* even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Generally, listed plant species are legally protected from take under the ESA only if they occur on federal lands.

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) have jurisdiction over federally listed threatened and endangered species under the ESA. USFWS also maintains lists of proposed and candidate species. Species on these lists are not legally protected under the ESA but may become listed in the near future and are often included in review of a project.

Federal Migratory Bird Treaty Act of 1918

The federal Migratory Bird Treaty Act (MBTA), 16 United States Code Section 703, prohibits the killing, possessing, or trading of migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA protects whole birds, parts of birds, and bird eggs and nests, and it prohibits the possession of all nests of protected bird species, whether they are active or inactive. An active nest is defined as one having eggs or young, as described by USFWS in its June 14, 2018, memorandum "Destruction and Relocation of Migratory Bird Nest Contents." Nest starts (i.e., nests that are under construction and do not yet contain eggs) and inactive nests are not protected from destruction.

In its June 14, 2018, memorandum, USFWS clarified the text regarding destruction of an active nest "while conducting any activity where the intent of the action is not to kill migratory birds or destroy their nests or contents," noting that such conduct is not prohibited under the MBTA.

State

California Endangered Species Act

The CESA (California Fish and Game Code, Chapter 1.5, Sections 2050–2116) prohibits the take of any plant or animal listed as an endangered, threatened, or candidate species. In accordance with the CESA, CDFW has jurisdiction over state-listed species (California Fish and Game Code Section 2070). CDFW regulates activities that may result in take of individuals (i.e., intending to "hunt, pursue, catch, capture, or kill" or "attempting to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of take under the California Fish and Game Code. CDFW, however, has interpreted take to include the "killing of a member of a species that is the proximate result of habitat modification."

California Environmental Quality Act

Section 15380(b) of the CEQA Guidelines provides that a species that is not listed on the federal or state lists of protected species may be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the ESA and the CESA as well as the section of the California Fish and Game Code dealing with rare or endangered plants and animals (Sections 2050–2115.5). This section was included in the guidelines to deal primarily with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either USFWS or CDFW or a species that is locally or regionally rare.

CDFW has produced three lists (i.e., amphibians and reptiles, birds, and mammals) of "species of special concern" that serve as "watch lists." Species on these lists are limited in distribution or the extent of their habitats has been reduced substantially such that a threat to their populations may be imminent. Therefore, their populations should be monitored. They may receive special attention during environmental review as potentially rare species but do not have specific statutory protection. All potentially rare or sensitive species, or habitats that are capable of supporting rare species, are considered for environmental review per CEQA Section 15380(b).

The California Native Plant Society (CNPS), a non-governmental conservation organization, developed California Rare Plant Ranks (CRPRs) for plant species of concern in California in its *Inventory of Rare and Endangered Plants*.[3] Although the CNPS is not a regulatory agency and plants on the lists have no formal

[3] California Native Plant Society. 2021. *Inventory of Rare and Endangered Plants* (7.0 and 9.0 online editions). Available: http://www.cnps.org/inventory. Accessed: June 3, 2022.

regulatory protection, plants appearing as CRPR 1B or 2 are, in general, considered to meet CEQA's Section 15380 criteria, and adverse effects on these species may be considered significant. Impacts on plants that are listed by the CNPS as CRPR 3 or 4 are also considered during CEQA review, although, because these species are typically not as rare as those of CRPR 1B or 2, impacts on such species are less frequently considered significant.

Compliance with CEQA Guidelines Section 15065(a) requires consideration of plant or animal communities. Vegetation types of "special concern" are tracked in the CNDDB RareFind database. Furthermore, CDFW ranks sensitive vegetation alliances according to their global (G) and state (S) rankings, which are analogous to those provided in the CNDDB. Global rankings of natural communities (G1–G5) reflect the overall condition (i.e., rarity and endangerment) of a habitat throughout its range, whereas S rankings reflect the condition of a habitat within California. If an alliance is marked as G1–G3, all associations within it would also be high priority. CDFW provides the Vegetation Classification and Mapping Program's currently accepted list of vegetation alliances and associations.[4]

California Fish and Game Code

Ephemeral and intermittent streams, rivers, creeks, dry washes, sloughs, blue-line streams on USGS maps, and watercourses with subsurface flows generally fall under CDFW jurisdiction. Canals, aqueducts, irrigation ditches, and other means of water conveyance may also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. A *stream* is defined in Title 14, California Code of Regulations Section 1.72, as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish and other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation." Using this definition, CDFW extends its jurisdiction to encompass riparian habitats that function as part of a watercourse. California Fish and Game Code Section 2786 defines *riparian habitat* as "lands that contain habitat that grows close to and depends on soil moisture from a nearby freshwater source." The lateral extent of a stream and associated riparian habitat that would fall under the jurisdiction of CDFW can be measured in several ways, depending on the particular situation and the type of fish or wildlife at risk. At a minimum, CDFW would claim jurisdiction over a stream's bed and bank. In areas that lack a vegetated riparian corridor, CDFW jurisdiction would be the same as USACE jurisdiction. Where riparian habitat is present, the outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats.

Pursuant to California Fish and Game Code Section 1603, CDFW regulates any project proposed by any person that will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department or use any material from the streambeds." California Fish and Game Code Section 1602 requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake. If CDFW determines that proposed activities may substantially adversely affect fish and wildlife resources, a Lake and Streambed Alteration Agreement (LSAA) must be prepared. The LSAA sets reasonable conditions to protect fish and wildlife and must comply with CEQA. The applicant may then proceed with the activity in accordance with the final LSAA.

Certain sections of the California Fish and Game Code describe regulations pertaining to the protection of certain wildlife species. For example, Section 2000 prohibits take of any bird, mammal, fish, reptile, or amphibian species, except as provided by other sections of the code.

[4] California Department of Fish and Wildlife. 2021. *Vegetation Classification and Mapping Program: Natural Communities List.* Available: http://www.dfg.ca.gov/biogeodata/vegcamp/natural_communities.asp. Accessed: May 17, 2022.

California Fish and Game Code Sections 3503, 3513, and 3800, as well as other sections and subsections, protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered take by CDFW. Raptors (i.e., eagles, hawks, owls) and their nests are specifically protected in California under Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird, except as otherwise provided by this code or any regulation adopted pursuant thereto."

Bats and other non-game mammals are protected by California Fish and Game Code Section 4150, which states that non-game mammals or parts thereof may not be taken or possessed, except as provided otherwise in the code or in accordance with regulations adopted by the commission. Activities such as the destruction of an occupied roost for a nonbreeding bat resulting in the mortality of non-game mammals, including bats, or disturbances that result in the loss of a maternity colony and the death of young may be considered take by CDFW.

Local

Menlo Park Municipal Code

The Menlo Park Municipal Code contains ordinances for Menlo Park. Title 16, Zoning, includes regulations relevant to biological resources on the Project site, as discussed below.

Bird-Friendly Design. All new construction, regardless of size, is required to comply with the City of Menlo Park (City) bird-safe design requirements provided in Menlo Park Municipal Code Section 16.43.140(6) (with respect to the O District). These design requirements include appropriate measures to reduce bird collisions, as follows:

A. No more than 10 percent of the façade surface area shall have non-bird-friendly glazing.

B. Bird-friendly glazing includes, but is not limited to, opaque glass; clear glass with patterns covering the outside surface; paned glass with fenestration, frit, or etching patterns; and nonreflective glass with external screens. Highly reflective glass is not permitted.

C. Occupancy sensors or other switch control devices shall be installed on non-emergency lights and programmed to shut off during non-work hours and between 10:00 p.m. and sunrise.

D. The placement of buildings shall avoid the potential funneling of flight paths toward a building façade.

E. Glass skyways or walkways, free-standing (see-through) glass walls and handrails, and transparent building corners shall not be allowed.

F. Transparent glass shall not be allowed at the rooflines of buildings, including in conjunction with roof decks, patios, and green roofs.

G. Rodenticides shall not be allowed.

Per the Zoning Ordinance, a project may receive a waiver from requirements A through F, subject to submittal of a site-specific evaluation from a qualified biologist and review and approval by the Planning Commission. A waiver from requirement G is not authorized.

Landscape Design Plan. Menlo Park Municipal Code Section 12.44.090(a)(1)(G) provides that the use of invasive or noxious plant species is strongly discouraged. Invasive species are defined as those plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. A noxious weed refers to any weed designated by weed control regulations in the Weed Control Act and identified on a regional district noxious weed control list.

Heritage Trees. The Proposed Project would be subject to Menlo Park Municipal Code Section 13.24, which establishes regulations for the preservation of heritage trees. Section 13.24 defines *heritage trees* as:

- Trees of historical significance, special character, or community benefit specifically designated by resolution of the City Council;
- An oak tree (Quercus sp.) that is native to California and has a trunk circumference of 31.4 inches (i.e., a diameter of 10 inches) or more, as measured at 54 inches above the natural grade; and
- All trees other than oaks that have a trunk circumference of 47.1 inches (i.e., a diameter of 15 inches) or more, as measured at 54 inches above the natural grade, with the exception of trees that are less than 12 feet tall, which are exempt from this section.

To protect heritage trees, Section 13.24.030 of the Menlo Park Municipal Code requires a tree protection plan prepared by a certified arborist to be submitted for any work performed within a tree protection zone, which is an area 10 times the diameter of the tree. Furthermore, all tree protection plans should be reviewed and approved by the Public Works Director or his or her designee prior to issuance of any permit for grading or construction.

The removal of heritage trees or pruning of more than one-fourth of the branches or roots within a 12-month period requires a permit from the City's Director of Public Works or his or her designee and payment of a fee. The Director of Public Works may issue a permit when the removal or major pruning of a heritage tree is reasonable, based on considerations such as the condition of the tree, the need for removal (e.g., to accommodate proposed improvements), the ecological and long-term value of the tree, and feasible alternatives that would allow for tree preservation.

City of Menlo Park General Plan

The City General Plan consists of the Open Space/Conservation, Noise, and Safety Element, adopted May 21, 2013; the 2015–2023 Housing Element, adopted by the City on April 1, 2014; and the Circulation and Land Use Elements, adopted November 29, 2016. The General Plan Land Use Element and Open Space/Conservation, Noise and Safety Element, contain general goals, policies, and programs that would require local planning and development decisions to consider impacts on biological resources.

The following goals, policies, and programs from the Land Use Element adopted to avoid or mitigate environmental impacts are relevant to biological resources and the Proposed Project:

> **Goal LU-4:** Promote and encourage existing and new business to be successful and attract entrepreneurship and emerging technologies for providing goods, services amenities, local job opportunities and tax revenue for the community while avoiding or minimizing potential environmental and traffic impacts.
>
> > **Policy LU-4.5:** Business Uses and Environmental Impacts. Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.

Goal LU-6: Preserve open space lands for recreation; protect natural resources, as well as air and water quality; and protect and enhance scenic qualities.

Policy LU-6.8: Landscaping in Development. Encourage extensive and appropriate landscaping in public and private development to maintain the city's tree canopy and promote sustainability and healthy living, particularly through an increase in the number of trees and the use of water-efficient landscaping in large parking areas and the public right-of-way.

Policy LU-6.11. Baylands Preservation. Allow development near the Bay only in already-developed areas.

Program LU-6.D. Design for Birds. Require new buildings to employ façade, window, and lighting design features that make them visible to birds as physical barriers and eliminate conditions that create confusing reflections to birds.

The following goals and policies from the Open Space/Conservation, Noise and Safety Element adopted to avoid or mitigate environmental impacts are relevant to biological resources and the Proposed Project:

Goal OSC1: Maintain, Protect, and Enhance Open Space and Natural Resources.

Policy OSC1.1: Natural Resources Integration with Other Uses. Protect Menlo Park's natural environment and integrate creeks, utility corridors, and other significant natural and scenic features into development plans.

Policy OSC1.3: Sensitive Habitats. Require new development on or near sensitive habitats to provide baseline assessments prepared by qualified biologists and specify requirements relative to the baseline assessments.

Policy OSC1.4: Habitat Enhancement. Require new development to minimize the disturbance of natural habitats and vegetation and require re-vegetation of disturbed natural habitat areas with native or non-invasive naturalized species.

Policy OSC1.5: Invasive, Non-Native Plant Species. Avoid the use of invasive, non-native species, as identified on the lists of invasive plants maintained at the California Invasive Plant Council and U.S. Department of Agriculture, or other authoritative sources, in landscaping on public property.

Policy OSC-1.11. Sustainable Landscape Practices. Encourage the enhancement of boulevards, plazas and other urban open spaces in high-density and mixed-use residential developments, commercial and industrial areas with landscaping practices that minimize water usage.

Policy OSC-1.12. Landscaping and Plazas. Include landscaping and plazas on public and private lands, and well-designed pedestrian and bicycle facilities in areas of intensive non-vehicular activity. Require landscaping for shade, surface runoff, or to obscure parked cars in extensive parking areas.

Policy OSC-1.13. Yard and Open Space Requirements in New Development. Ensure that required yard and open spaces are provided for as part of new multi-family residential, mixed-use, commercial and industrial development.

Policy OSC1.15: Heritage Trees. Protect heritage trees, including during construction, through enforcement of the Heritage Tree Ordinance (Section 13.24 of the Menlo Park Municipal Code).

Environmental Impacts

This section discusses potential impacts on biological resource that could result from implementation of the Proposed Project. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact would be significant. A summary of ConnectMenlo EIR impacts and mitigation measures is then provided. As previously discussed in Chapter 1, *Introduction*, the analysis below makes reference to, and tiers from, the ConnectMenlo Final EIR, where appropriate. A brief summary of the Project-related impacts on biological resources that were scoped out in the Initial Study (Appendix 1-1) is also included. The latter part of this section identifies the potential impacts of the Proposed Project as well as mitigation measures, as appropriate.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Proposed Project would have a significant effect if it would result in any of the conditions listed below.

- 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.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on state or federally protected wetlands, including, but not limited to, marshes, vernal pools, coastal wetlands, through direct removal, filling, hydrological interruption, or other means.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Summary of Analysis in the ConnectMenlo EIR

The ConnectMenlo EIR analyzed the following impacts that would result from implementing the updates to the Land Use and Circulation Elements and the M-2 Area Zoning Update:[5]

- Impacts related to special-status species or the inadvertent loss of bird nests in active use were analyzed in the ConnectMenlo EIR as Impact BIO-1 (pages 4.3-19 to 4.3-23) and found to be less than significant with mitigation incorporated. The impact could be potentially significant because special-status species have the potential for occurrence in the remaining undeveloped lands in the Bayfront Area and, much more infrequently, in the semi-natural (e.g., ditches,

[5] City of Menlo Park. 2016. *ConnectMenlo: General Plan Land Use and Circulation Elements and M-2 Zoning Update for the City of Menlo Park*. June 1. Prepared by PlaceWorks, Berkeley, CA. Menlo Park, CA. Available: https://www.menlopark.org/1013/Environmental-Impact-Report. Accessed: March 14, 2022.

annual grassland) portions of Menlo Park where construction with future development allowed under the City General Plan could occur. Implementation of Mitigation Measure BIO-1 would reduce the impact to less than significant by requiring the preparation of a Project-specific baseline biological resources assessment, prepared by a qualified biologist, on sites containing natural habitat with features such as mature and native trees or unused structures that could support special-status species and other sensitive biological resources as well as common birds protected under the MBTA. If sensitive biological resources are determined to be present, measures such as preconstruction surveys, buffers, and bird-safe design practices and materials, developed by the qualified biologist, would provide adequate avoidance or compensatory mitigation if avoidance is infeasible. Where jurisdictional waters or federally or state-listed species would be affected, appropriate authorization would be obtained by the Project Sponsor.

- Impacts related to the loss of coastal salt marsh vegetation in the Baylands and possibly areas of riparian scrub and woodland along San Francisquito Creek and other drainages in the area were analyzed in the ConnectMenlo EIR as Impact BIO-2 (pages 4.3-24 and 4.3-25) and found to be less than significant with mitigation incorporated. Implementation of Mitigation Measure BIO-1 would reduce this impact to less than significant, as described in the first bullet point.
- Impacts related to the loss of wetland habitat in the area were analyzed in the ConnectMenlo EIR as Impact BIO-3 (pages 4.3-25 and 4.3-26) and found to be less than significant with mitigation incorporated. Implementation of Mitigation Measure BIO-1 would reduce this impact to less than significant, as described in the first bullet point.
- Impacts related to the movement of fish and wildlife, wildlife corridors, or wildlife nursery sites in the area were analyzed in the ConnectMenlo EIR as Impact BIO-4 (page 4.3-26) and found to be less than significant with mitigation incorporated. Implementation of Mitigation Measure BIO-1 would reduce this impact to less than significant, as described in the first bullet point.
- Impacts related to conflicts with local policies and ordinances for the area were analyzed in the ConnectMenlo EIR as Impact BIO-5 (page 4.3-27) and found to be less than significant because the City General Plan is the overriding planning document for Menlo Park and the proposed amendments analyzed under the ConnectMenlo EIR would ensure internal consistency between the City General Plan and the City Zoning Ordinance. Furthermore, with adherence to City General Plan goals, policies, and programs in the Land Use Element and the Open Space/Conservation, Noise and Safety Element and the City's Tree Preservation Ordinance, in combination with Menlo Park Municipal Code Chapters 12.44, Water-Efficient Landscaping, and 13.24, Heritage Trees, as well as federal and state laws, no conflicts with local plans and policies were anticipated, and impacts were determined to be less than significant.
- Impacts related to conflicts with an adopted habitat conservation plan, natural community conservation plan, or other local, regional, or state habitat conservation plan in the area were analyzed in the ConnectMenlo EIR as Impact BIO-6 (pages 4.3-27 to 4.3-28) and found to be less than significant with mitigation incorporated. Implementation of Mitigation Measure BIO-1 would reduce this impact to less than significant, as described in the first bullet point.

Impacts Not Evaluated in Detail

The Initial Study (Appendix 1-1) included the following analysis and conclusions:

- The Project site does not contain any riparian habitat or sensitive natural communities and would, therefore, result in no impact on these resources (Impact b in the Initial Study).
- The Project site does not contain any wetlands or non-wetland waters and indirect impacts on nearby wetlands or non-wetland waters from site runoff would be less than significant due to compliance with stormwater controls (Impact c in the Initial Study).
- The Project would result in a less than significant impact related to conflicts with local policies or ordinances protecting biological resources through compliance with requirements in the City Municipal Code (Impact e in the Initial Study).
- The Project site is not within a geographic area covered by an adopted HCP or natural community conservation plan and would, therefore, result in no impact on the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP (Impact f in the Initial Study).

No further analysis of the following resources would be required: riparian habitat or sensitive natural communities; wetlands or non-wetland waters; conflicts with local policies or ordinances protecting biological resources; or conflicts with an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP.

The Initial Study identified that ConnectMenlo Mitigation Measure BIO-1 would require that project applicants prepare and submit a project-specific Biological Resources Assessment (BRA) if a project occurs on or adjacent to parcels containing natural habitat. In compliance with this requirement a project-specific BRA was prepared for the Proposed Project and the BRA outlined measures (identified as Mitigation Measures BR-1 through BR-4 in the Initial Study) that would be implemented to reduce impacts on special-status birds and nesting birds (Impacts a and d in the initial Study). Since the preparation of the Initial Study, the City has identified that these impacts should be discussed in the EIR and not in the Initial Study. As such, this section includes a discussion of special-status species and wildlife movement and native wildlife nursery sites, including required Project-specific mitigation measures.

Methods for Analysis

The analysis below is based on the BRA prepared by H. T. Harvey & Associates for the Proposed Project. The BRA was prepared in conformance with ConnectMenlo EIR Mitigation Measure BIO-1, which requires preparation of a BRA, as specified by the specific conditions of the mitigation measure.

The identification of potential impacts on biological resources relied on a review of relevant Project information, scientific literature, and technical databases as well as site visits. Prior to conducting initial fieldwork, H. T. Harvey & Associates ecologists reviewed the original Project plans and the Project description provided by the Project Sponsor in January 2019 as well as aerial images,[6] a USGS topographic map, the CNDDB,[7] and other relevant scientific literature and technical databases. Previous reports prepared for the Project site and Project vicinity were also reviewed, including the Commonwealth Corporate Center Project Final EIR (ICF International 2014); the Facebook Campus Expansion Project EIR

[6] Google, Inc. 2019. Google Earth (version 7.3.0.3832). Available: http://www.earth.google.com.

[7] California Department of Fish and Wildlife. 2022. California Natural Diversity Database. RareFind 5.0. Available: http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed: May 24, 2022.

(ICF International 2016); the Final EIR for ConnectMenlo: the General Plan Land Use & Circulation Elements and M-2 Area Zoning Update for the City of Menlo Park (PlaceWorks2016); the Endangered Species Assessment for the Menlo Gateway Project (H. T. Harvey & Associates 2016); the Commonwealth Building 3 Project – Avian Collision Risk Assessment (H. T. Harvey & Associates 2018); and the Comprehensive Conservation Plan and Environmental Assessment for the Don Edwards San Francisco Bay National Wildlife Refuge (NWR) (USFWS 2012). In addition, for plants, H.T. Harvey & Associates reviewed all species on current California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1A, 1B, 2A, and 2B lists occurring in the Palo Alto, California 7.5-minute USGS quadrangle and the surrounding eight quadrangles (Woodside, San Mateo, Redwood Point, Newark, Mountain View, Cupertino, Mindego Hill, and La Honda, California). Quadrangle-level results are not maintained for CRPR 3 and 4 species, so H.T. Harvey & Associates also conducted a search of the CNPS Inventory records for these species occurring in San Mateo County (CNPS 2019). In addition, H.T. Harvey & Associates queried the CNDDB (2019) for natural communities of special concern that occur in the Project region. For purposes of this section, where this term is used, "Project Vicinity" encompasses a 5-mile radius surrounding the Project site.

The Study Area was evaluated for the purpose of ensuring that all potential direct, indirect, and cumulative effects on biological resources would be considered. Reconnaissance-level field surveys of the Project site were conducted by wildlife and plant ecologists from H.T. Harvey & Associates on January 29, 2019 and February 8, 2019. The purpose of the surveys was to provide a Project-specific impact assessment for the Proposed Project, as described above. Specifically, surveys were conducted to: (1) assess existing biotic habitats and general plant and wildlife communities in the Study Area, (2) assess the potential for the Proposed Project to affect special-status species or their habitats, and (3) identify potential jurisdictional habitats, such as Waters of the United States/State and riparian habitat.

Impacts and Mitigation Measures

Impact BIO-1: Impacts on Special-Status Species. The Proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on a species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (LTS/M)

There are no special-status plant species on the Project Site, and no wildlife species are expected to inhabit or breed on the Project Site because of the Project site's urban setting and consequent lack of the natural communities to which these species are adapted. Most special-status species in the vicinity are associated with the extensive tidal marshes or salt pond complexes adjacent to San Francisco Bay. Although such habitat occurs within 2 miles of the Project site, the distributions of these species are limited by specific environmental requirements (e.g., moisture, salinity, topography, soil types, vegetation structure) that do not occur in the urban environment, including on the Project site.

As noted in the BRA prepared for the Proposed Project, pallid bat individuals, which are a California Species of Special Concern, could occasionally forage at the existing parking lot on the Project site, although this would be rare. Because of the absence of suitable roosting sites for pallid bats, however, this species is not expected to roost on the Project site and there are no known maternity colonies present on or adjacent to the Project site. As such, the Proposed Project is not expected to impact pallid bat.

In addition, the ornamental trees currently onsite are considered suitable nesting habitat for tree-nesting raptors such as Cooper's hawk and red-shouldered hawk, although evidence of their presence was not observed by H. T. Harvey ecologists. These common species have not been identified as candidate,

sensitive, or special-status species by the U.S. Fish and Wildlife Service or CDFW, but tree-nesting raptors are identified and considered to be special-status species by a local plan (i.e., ConnectMenlo). If the Project is implemented during the nesting season (February 1 to September 14), tree and shrub removal could result in direct mortality of adult or young tree-nesting raptors, the destruction of active nests, and/or a disturbance for nesting adults, causing nest abandonment and/or loss of reproductive effort. As such, the Proposed Project's potential impact on tree nesting raptors would be potentially significant. The Proposed Project would implement Mitigation Measures BR-1, BR-2, BR-3, and BR-4, which include measures to ensure that any disturbance of tree-nesting raptors that could result in the abandonment of active nests or litters, or the loss of active nests through vegetation or structure removal is avoided. As such, impacts on special-status species would be ***less than significant with mitigation***.

MITIGATION MEASURES. The Project would implement the following Project mitigation measures, as outlined in the BRA prepared for the Project (Appendix 3.8-1):

BR-1: *Nesting Bird Avoidance.* To the extent feasible, construction activities (or at least the commencement of such activities) shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on tree-nesting raptors and nesting resident and migratory birds protected under the MBTA and California Fish and Game Code would be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.

BR-2: *Preconstruction/Pre-disturbance Surveys.* If it is not possible to schedule construction activities between September 1 and January 31, preconstruction surveys for nesting raptors and resident and migratory birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than 7 days prior to the initiation of construction activities. During this survey, the ornithologist shall inspect all trees and other potential nesting substrates (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests.

BR-3: *Active Nest Buffers.* If an active nest is found close to work areas that are to be disturbed by construction activities, the qualified ornithologist shall determine the extent of the construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species) to ensure that no nests of tree-nesting raptors or resident or migratory bird species that are protected by the MBTA and California Fish and Game Code are disturbed during project implementation.

BR-4: *Inhibition of Nesting.* If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, other vegetation) that are scheduled to be removed by the project shall be removed prior to the start of the nesting season (i.e., before February 1). This will preclude the initiation of nests in such vegetation and prevent potential delay of the Project because of the presence of active nests in these substrates.

Impact BIO-2: Impacts on Wildlife Movement and Native Wildlife Nursery Sites. The removal of ornamental trees would not affect the nesting habitat of native resident and migratory birds and tree-nesting raptors. (LTS/M)

As part of the Proposed Project, 327 trees would be removed at the Project site; none are heritage trees. Project activities would be within an already-developed footprint that is surrounded by existing development and is absent of sensitive natural communities and habitats. Nonetheless, the ornamental

trees on the Project site support regionally common, urban-adapted breeding birds and a very small proportion of the species' regional populations. These birds are habituated to disturbance related to existing conditions at the Project site. Moreover, the ornamental trees currently on the Project site are considered suitable nesting habitat for tree-nesting raptors such as Cooper's hawk and red-shouldered hawk and for native resident and migratory birds that are protected under the MBTA and California Fish and Game Code. While H. T. Harvey ecologists closely examined trees for evidence of nesting by raptors (e.g., old stick nests), and they observed none, the removal of ornamental trees as part of the Proposed Project could affect the nesting habitat of common birds, as well as protected native and migrating birds, and tree-nesting raptors. Construction disturbance and tree removal activities during the avian breeding season (February 1 through August 31, for most species) could result in the incidental loss of eggs or nestlings, either directly through destruction or disturbance of active nests or indirectly through nest abandonment, which would be considered a significant impact. The Proposed Project would implement Mitigation Measures BR-1, BR-2, BR-3, and BR-4, which include measures to ensure that any disturbance of nesting birds that could result in the abandonment of active nests or litters or the loss of active nests through vegetation or structure removal is avoided. As such, impacts on the nesting habitats of native resident and migratory birds and tree-nesting raptors would be ***less than significant with mitigation***.

In addition, the Proposed Project includes planting 217 new trees, 186 existing trees, other landscaping, and a reduction in the amount of surface parking which would provide some food and structural resources for the tree nesting raptors, common, urban-adapted birds of the area, and migrants that may use the area during spring and fall migration.

Cumulative Impacts

Impact C-BIO-1: Cumulative Biological Resources Impacts. Cumulative development would not result in a significant cumulative impact on biological resources. (LTS/M)

The ConnectMenlo EIR analyzed the potential for cumulative impacts that could result from implementing the updates to the Land Use and Circulation Elements and the M-2 Area Zoning Update in combination with other past, present, and probable future projects in Impact BIO-7 (pages 4.3-28 and 4.3-29). The ConnectMenlo EIR found that potential impacts from proposed development on biological resources tend to be site specific. The overall cumulative effect depends on the degree to which significant vegetation and wildlife resources are protected on a particular site. To some degree, cumulative development contributes to an incremental reduction in the amount of wildlife habitat, particularly for birds and larger mammals. New development in the region could result in further conversion of natural habitats to urban and suburban conditions, thereby limiting the existing habitat values of the surrounding area. However, the ConnectMenlo EIR determined that biological assessments for future projects involving specific development on or near sensitive habitats, as required under ConnectMenlo EIR Mitigation Measure BIO-1, and compliance with City General Plan policies and zoning regulations would ensure that important biological resources would be identified, protected, and properly managed and prevent any significant adverse development-related impacts, including development of the remaining undeveloped lands in the planning area and surrounding incorporated and unincorporated lands. Therefore, implementation of ConnectMenlo EIR Mitigation Measure BIO-1 would reduce cumulative impacts to ***less than significant***.

Chapter 4
Other CEQA Considerations

As required by the California Environmental Quality Act (CEQA), this chapter discusses the following types of impacts that could result from implementation of the Proposed Project: growth-inducing impacts, significant irreversible changes, effects found not to be significant, and significant and unavoidable effects.

4.1 Growth Inducement

Section 15126.2(d) of the CEQA Guidelines states that an environmental impact report (EIR) should discuss "…the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth can be induced in a number of ways, including through the elimination of obstacles to growth; through the stimulation of economic activity within the region, including the generation of significant employment opportunities; or through precedent-setting action. CEQA requires a discussion of how a project could increase population, employment, or housing in the areas surrounding a project as well as an analysis of the infrastructure and planning changes that would be necessary to implement a project.

This EIR discusses the manner in which the Proposed Project could affect growth in the city and the larger Bay Area. In accordance with CEQA Guidelines Section 15126.2, the discussion of growth inducement is not intended to characterize the Proposed Project as beneficial, detrimental, or of little significance to the environment. The growth-inducement discussion is provided for informational purposes so that the public and local decision-makers appreciate the potential long-term growth implications of the Proposed Project. Although CEQA requires a disclosure of growth-inducement effects, an EIR is not required to anticipate and mitigate the effects of a particular project related to growth in other areas. Growth inducement has the potential to result in an adverse impact if the growth is not consistent with or accommodated by the land use and growth management plans and policies for the affected area. Because the general plan of a community defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in that community.

In discussing growth inducement, it is useful to distinguish between direct and indirect growth. Direct growth occurs on a project site as a result of new facilities (buildings) being constructed or an increase in developed space. As discussed in Chapter 2, *Project Description*, direct growth associated with the Proposed Project would amount to 249,500 gross square feet (gsf) of development for office uses, 404,000 gsf parking structure accommodating 1,340 parking spaces, and a 34,000 sf publicly accessible open space.

Indirect growth occurs beyond a particular project site but is stimulated by a project's direct growth. Indirect growth is tied to increased direct and indirect investment and spending associated with the new direct growth. For example, if a project were implemented, future workers would spend money in the local area, and the expenditure of that money would result in additional jobs. The indirect jobs generated by a project (referred to as the "multiplier effect") tend to occur relatively close to places of employment but may occur at more distant locales as well. When CEQA refers to induced growth, it means all growth—direct, indirect, and otherwise.

A total of 1,996 employees would be generated by the Proposed Project; this, in turn, would generate demands for new housing in the city and region. As discussed in Section 3.5, *Population and Housing*, between 2020 and 2040, the indirect housing demand generated by the Proposed Project would account

for 0.2 percent of projected household growth in the Bay Area, 3.1 percent of household growth in San Mateo County, and 3.4 percent of household growth in the city. Overall, on a regional basis, the Proposed Project's demand for housing would not represent a significant share of the total household growth projected by the Association of Bay Area Governments (ABAG). As such, development associated with the Proposed Project would be generally consistent with what is projected in the City of Menlo Park's (City's) adopted general plan and included in regional ABAG projections. Therefore, the adopted general plan considered direct job growth as well as the indirect, induced housing demand that would result from implementation of the Proposed Project.

As discussed in Section 3.5*, Population and Housing*, the increase in employment at the Project site would result in an increase in housing demand and an influx of new residents in the city and other jurisdictions in the region. Assuming the county's average of approximately 1.91 employees per worker household, the Proposed Project would generate a demand for 1,046 housing units.[1] On average, approximately 5.9 percent of the city's workforce resides in the city. Further, 7.4 percent of the Meta employees who currently work across all Meta facilities in Menlo Park live in Menlo Park. Given these numbers, it is conservatively assumed that up to 7.4 percent of the employees generated by the Proposed Project would seek and find housing in the city. Therefore, approximately 148 of the projected number of employees at the Project site would be expected to live in the city.[2] Given an average of 1.91 workers per household, the Proposed Project could generate a demand for 62[3] to 77[4] new housing units in the city. In addition, using these assumptions, the Proposed Project could create a demand for up to 984 housing units outside the city.[5]

As stated above, approximately 5.9 percent of the city's workforce also resides in the city, but 7.4 percent of Meta employees who currently work across all Meta facilities in Menlo Park live in the city. Using these numbers, with an average persons-per-household (pph) ratio of 2.64, the Proposed Project could generate approximately 164 to 204 new residents within Menlo Park.

Approximately 44,530 residents lived within the city's sphere of influence in 2020. According to ABAG projections, the population is projected to increase to approximately 54,920 by 2040 with the addition 10,390 residents over 20 years. The addition of up to 204 new residents in the city as a result of the Proposed Project would represent approximately 2.0 percent of the anticipated population growth in the city between 2020 and 2040.[6]

The Proposed Project's development of office uses, rather than housing, in the context of the city's already-high jobs/housing ratio does not further the balanced growth objectives of Plan Bay Area, a transportation and land use/housing strategy for how the Bay Area will address its transportation mobility and accessibility needs, land development plans, and greenhouse gas emissions reduction requirements through 2040. This manifests in upward pressure on housing demand because of the low supply, which,

1 The 1,046 new housing units required to support the Proposed Project = 1,996 employees/1.91 worker per housing unit.

2 The 1,996 Project employees × 7.4 percent of Project employees who would live in the city = 148 Project employees who would live in the city.

3 The 1,046 total households × 5.9 percent (city average) = 62 households.

4 The 1,046 total households × 7.4 percent (Campus Property average) = 77 households.

5 The 1,046 units to support employment from the Project minus 62 units demanded in the city's sphere of influence due to the Project = 984 units demanded outside the city because of the Proposed Project.

6 (up to 204 new residents in the city's sphere of influence/10,390 anticipated new residents in the city's sphere of influence between 2020 and 2040) × 100 = 2.0 percent of anticipated population growth in the city's sphere of influence.

in turn, exerts upward pressure on housing prices and results in workers seeking housing farther and farther away from the Project site. However, as discussed below, it is not possible to predict with certainty whether the percentage of employees both living and working in the city will be maintained in the future, nor it is possible to predict exactly where employees from outside the city might live.

Employees of the Proposed Project could be housed throughout the region. As stated above, it is anticipated that up to 7.4 percent of the employees generated by the Proposed Project would live in the city. The remaining employees would very likely find housing throughout the region, with the majority living in San Mateo, Santa Clara, and San Francisco Counties and a small percentage living in outlying areas. Alternatively, more local housing could be provided by cities within San Mateo County, thereby lessening the commute for those traveling to the Project site by providing local housing options. However, the future location where housing demand may occur cannot be predicted with certainty because of the influence of complex factors, including housing supply, housing affordability, the demographics of new employees, traffic and transit conditions, the salaries of new employees, and the preferences of new employees.

4.2 Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires an EIR to evaluate the significant irreversible environmental changes that could be caused by a proposed project should it be implemented. Irreversible environmental changes involve large commitments of nonrenewable resources or irreversible damage from environmental accidents. CEQA Guidelines Section 15126.2(d) discusses three categories of significant irreversible changes that should be considered. Each is addressed below.

Changes in Land Use that Commit Future Generations

The Project site is within the Bayfront Area of the city and generally surrounded by commercial and light industrial uses. The Project site is on a portion of the approximately 13.3-acre Campus Property at 162 and 164 Jefferson Drive. The Campus Property consists of assessor's parcel numbers (APNs) 055-243-300, 055-243-310, and 055-243-999 and includes two existing buildings (Buildings 1 and 2) of approximately 259,920 gsf, which are currently occupied by Meta (referred to by Meta as Buildings 27 and 28); surface parking; and landscaping. The proposed building and parking structure would be located on the northern portion of the Campus Property.

Construction of the Proposed Project would occur on land that is designated for urban uses. The Proposed Project would be consistent with existing zoning for the site; however, in the future, the site could be rezoned, in which case, at the end of the useful life of the Proposed Project, the use could change. Therefore, the Proposed Project would not commit future generations to a significant change in land use.

Irreversible Damage from Environmental Accidents

No significant environmental damage, such as damage from an accidental spill of a hazardous material, is anticipated to occur with development of the Proposed Project. As described in Section IX, *Hazards and Hazardous Materials*, of the Initial Study (Appendix 1-1), a Phase I Environmental Site Assessment (ESA) was prepared for the Project site.

It is anticipated that the Proposed Project would use hazardous materials that are typical in office uses (e.g., cleaning products, building maintenance products, fertilizers and pesticides for landscaping). It is possible that such materials could be released into the environment. The San Mateo County

Environmental Health Department regulates waste generated by biotechnology through its Medical Waste Program and other hazardous materials through its Hazardous Materials Business Plan Program. Both programs regulate the use, storage, and disposal of hazardous materials. Enforcement is overseen by the Menlo Park Fire Protection District (MPFPD). Compliance with federal, state, and local regulations would ensure that all hazardous materials would be used, stored, and disposed of properly, which would minimize potential impacts related to a hazardous materials release during Project operation. No irreversible changes, such as those that might result from construction of a large-scale mining project, a hydroelectric dam project, or major institutional project, would result from development of the Proposed Project.

Consumption of Non-Renewable Resources

The Proposed Project would provide approximately 249,500 gsf of office space within a four-story building, a 404,000 gsf parking structure accommodating 1,340 parking spaces within four above-grade levels and one partially below-grade level, and a 34,000 sf privately owned and publicly accessible open space. Project development would require the use of materials such as steel and copper, as well as fossil fuels, during construction. Unless recycled, the source metals used would represent an irreversible use of resources. Fossil fuels used during construction would represent an irreversible use of oil and natural gas.

The Proposed Project would consume an estimated 3,181,084 gallons of diesel fuel, 77,609 gallons of gasoline, and 800,000 kilowatt hours of electricity over the construction period. Construction of the Proposed Project would not involve the consumption of natural gas.

During operations, the Proposed Project's energy demand is estimated to be as follows:

Electricity: The Proposed Project would consume approximately 18.36 million kilowatt hours of electricity per year, which would represent an increase in electricity demand compared with existing conditions at the Project site (i.e., the surface parking lot where the proposed building and parking structure would be located).

Other Fuel: The Proposed Project would consume more than 263,044 gallons of fuel annually during normal operations for vehicle use.

To the extent that electricity for the Proposed Project comes from renewable sources (e.g., hydropower, sun, wind, geothermal), the Proposed Project would not represent an irreversible use of resources. To the extent that electricity for the Proposed Project comes from non-renewable sources (e.g., natural gas, coal, nuclear), the Proposed Project would represent an irreversible use of those resources. However, as discussed in Chapter 3.3, *Greenhouse Gas Emissions*, the Proposed Project's electricity would come from renewable sources.

4.3 Effects Found Not to Be Significant

Section 15128 of the CEQA Guidelines notes that "an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." Implementation of the Proposed Project would not result in significant environmental impacts related to aesthetics, agricultural and forestry resources, certain biological resources (riparian habitat or other sensitive natural communities, wetlands, conflict with local policies, HCP/NCCPs), certain cultural and tribal cultural resources (historic resources),

energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, certain noise (ground-borne noise and vibration levels, airports), public services, recreation, or certain utilities and service systems (solid waste). Therefore, these issues are not discussed further in this EIR but are briefly summarized below.

Aesthetics

The Project site is within a portion of the city known as the Bayfront Area.[7] Because of the relatively flat topography of the Project site and vicinity, as well as the prevalence of buildings and vegetation, views from at-grade locations are largely restricted. Although the Proposed Project would result in additional height, bulk, and massing from the new building, which would interrupt existing channelized views of the Santa Cruz Mountains from Adams Court, this area is not considered a scenic vista; therefore, the Proposed Project would not block a scenic vista. As explained in the General Plan and M-2 Area Zoning Update (ConnectMenlo) EIR, although a section of Interstate 280 within the ConnectMenlo study area is a designated scenic highway, per the California Scenic Highways Program,[8] the Bayfront Area is not within the viewshed of Interstate 280.

The Proposed Project would have an average height of 59.9 feet across the entire Project site; the maximum height of the proposed building would be approximately 69 feet. Although the maximum average height permitted is 35 feet, bonus-level development within the Office, Bonus (O-B) zoning district would allow a maximum height of 110 feet in exchange for community amenities.

The Proposed Project would be required to comply with the City's architectural control process, in accordance with Section 16.8.020 of the zoning ordinance, ensuring that the Proposed Project would comply with existing design standards, including standards related to light and glare. This process would ensure that the proposed design, construction materials, and lighting would be consistent with area practices and that the proposed lighting would be directed downward so as not to spill over on adjacent properties. Therefore, the Proposed Project's impacts related to scenic vistas, scenic resources, and light and glare would be ***less than significant***.

Agricultural and Forestry Resources

The Project site and vicinity are within an urban area of the city characterized by light industrial and office uses. The Project site is not on or adjacent to farmland. The site is considered "Urban and Built-Up Land"[9] by the State Department of Conservation, and the site is not currently protected under the Williamson Act.[10] It is not used for agricultural production, nor does it support forestry resources. Therefore, implementation of the Proposed Project would have ***no impact*** on agricultural and forestry resources.

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7 According to the General Plan and M-2 Area Zoning Update (ConnectMenlo) EIR.

8 California Department of Transportation. 2018. *California Scenic Highway Mapping System, San Mateo County.* Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed: July 4, 2018.

9 California Department of Conservation. 2018. *2016 Farmland Mapping and Monitoring Program*. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/smt16.pdf. Accessed: June 18, 2018.

10 California Department of Conservation. 2012. *San Mateo County Williamson Act, FY 2006/2007*. Last revised: 2012. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/SanMateo_06_07_WA.pdf. Accessed: April 25, 2018.

Biological Resources (Riparian Habitat or Other Sensitive Natural Communities, Wetlands, Conflicts with Local Policies, or Conflicts with Habitat Conservation Plans and Natural Community Conservation Plans)

Impacts related to riparian habitat or sensitive natural communities, wetlands, conflicts with local policies or ordinances, and habitat conservation plans or natural community conservation plans, were scoped out from further review in the Initial Study. These impacts are summarized in Section 3.8, *Biological Resources*.

Cultural Resources (Historical Resources)

Impacts related to historical resources were scoped out from further review in the Initial Study. These impacts are summarized in Section 3.7, *Cultural and Tribal Resources*.

Energy

The Proposed Project would be constructed in accordance with the California Green Building Standards Code (CALGreen) and Chapter 12.18, Green Building Ordinance, of the City's Municipal Code as well as the 2006 Appliance Efficiency Regulations (Title 20, California Code of Regulations Sections 1601 through 1608). Furthermore, the Proposed Project would use energy-efficient building materials, recycled building materials, and environmentally sustainable building materials. During operation, the Proposed Project would be required to meet 100 percent of its energy demand through a combination of onsite energy generation, the purchase of 100 percent renewable electricity, and/or the purchase of certified renewable energy credits. In addition, the proposed building, which would be designed to meet Leadership in Energy and Environmental Design (LEED) Gold Building Design and Construction (BD+C) standards, would incorporate electric-vehicle parking stalls, bird-friendly designs, and water-efficient landscaping, all of which would conserve energy. Furthermore, the Proposed Project would incorporate a Transportation Demand Management (TDM) Program, which would reduce mobile energy (e.g., diesel and gasoline) consumption by providing subsidized transit passes, carpooling and vanpooling incentive programs, bicycle storage areas, showers and changing rooms, and other onsite amenities to encourage the use of modes of transportation other than automobiles. Therefore, the Proposed Project would be consistent with the energy conservation policies outlined in ConnectMenlo, the City's Climate Action Plan, and Senate Bill 743. The Proposed Project's impacts related to energy use would be ***less than significant***.

Geology and Soils

No known fault crosses the Project site, and the Project site is not within an Alquist-Priolo Earthquake Fault Zone. Similar to the ConnectMenlo EIR, the Initial Study determined that compliance with existing regulations, including City General Plan policies, such as Policy S-1.13, and the California Building Standards Code, would ensure that potential impacts related to strong seismic ground shaking and seismically related ground failure, including liquefaction or landslides, would be less than significant. In addition, per Programs S-1D and S-1H, the Proposed Project would be required to incorporate recommendations from the site-specific geotechnical investigation, which would ensure that potential impacts related to soil erosion and unstable soils would be less than significant. A Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMPs) would also be implemented during construction and operation of the Proposed Project to minimize erosion.

The Proposed Project would involve excavation activities up to a depth of 7 feet which would extend through Holocene fine-grained alluvium deposit and into the Holocene and Pleistocene alluvial and basin deposits that underlain the Project site. The deposits are sensitive with respect to paleontological resources, and therefore, excavation activities could result in the potential disturbance, damage, or loss of paleontological resources resulting in a potentially significant impact. However, with implementation of ConnectMenlo EIR Mitigation measure CULT-3, impacts to paleontological resources would be less than significant. Therefore, the Proposed Project would have ***less than significant with mitigation*** impacts related to geology and soils.

ConnectMenlo EIR Mitigation Measure

CULT-3 In the event that fossils or fossil bearing deposits are discovered during ground disturbing activities, excavations within a 50-foot radius of the find shall be temporarily halted or diverted. Ground disturbance work shall cease until a City-approved qualified paleontologist determines whether the resource requires further study. The paleontologist shall document the discovery as needed (in accordance with Society of Vertebrate Paleontology standards [Society of Vertebrate Paleontology 1995]), evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. The excavation plan shall be submitted to the City of Menlo Park for review and approval prior to implementation, and all construction activity shall adhere to the recommendations in the excavation plan.

Hazards and Hazardous Materials

The Proposed Project would involve construction of a new office building and parking structure in the northern portion of the Campus Property. The existing buildings (Buildings 1 and 2) would remain in their existing condition. A review of regulatory databases did not reveal a history of hazardous waste releases or documented environmental contamination at the Project site, nor was the Project site on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

A Phase I ESA was prepared for the Project site. The soil and groundwater samples that were tested for contaminants, including volatile organic compounds; gasoline-, diesel-, and motor oil–range hydrocarbons; pesticides; semi-volatile organic compounds; and other selected materials, did indicate that contaminated soil exists below the surface of the parking lot. Therefore, the transport of spoils may result in the transport of hazardous materials in the form of contaminated soil with petroleum hydrocarbons. However, because compliance with existing regulations would be mandatory (i.e., California Department of Transportation regulations), and the Proposed Project would prepare a SWPPP and maintain BMPs to avoid adverse construction-related effects on the surrounding environment, the Proposed Project would not be expected to create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials.

It is anticipated that the Proposed Project would use, store, generate, and dispose of hazardous materials during construction and operation that are typical. However, none of these products would be generated or stored in large quantities, and any transport of these materials would be subject to California Department of Transportation regulations. In addition, the Proposed Project would be required to adhere to the San Mateo County Environmental Health Department's Certified Unified Program Agency regulations and related Unified Program as well as the Project-specific SWPPP.

The TIDE Academy is within 0.25 mile of the Project site. However, as explained above, the Proposed Project would be required to comply with federal, state, and local regulations, as well as the Project-specific SWPPP, ensuring that all hazardous materials would be used, stored, and disposed of properly and minimizing potential impacts related to a hazardous materials release.

The Project site is not within 2 miles of an airport. It would not result in a safety hazard or excessive noise for people residing or working in the Project area. Similar to the conclusion in the ConnectMenlo EIR, compliance with existing regulations, including the California Building Standards Code, California Fire Code, and MPFPD Fire Code, would ensure that the Proposed Project would not impair nearby evacuation routes, nor would it expose people to loss, injury, or death involving wildland fires. Therefore, impacts related to hazards and hazardous materials would be ***less than significant***.

Hydrology/Water Quality

The Proposed Project would be required to comply with the City's Stormwater Management Program. On behalf of the Project Sponsor, Kier & Wright Civil Engineers & Surveyors prepared its *Commonwealth Building 3, 162 & 164 Jefferson Drive, Hydrology Report*, in compliance with City requirements. The Proposed Project would implement BMPs and incorporate site design measures to reduce stormwater runoff during operations. These could include a combination of biotreatment areas and landscaped areas around the proposed building. In addition, the Project Sponsor would develop and implement a final Stormwater Management Plan (SWMP), with the goal of reducing the discharge of pollutants to the maximum extent practicable. Construction activities could result in short-term impacts on the quality of surface water and groundwater because dewatering, which could involve potentially contaminated groundwater, may be required. However, a Project-specific SWPPP would be developed and implemented in compliance with the Construction General Permit, local stormwater ordinances, and other requirements, ensuring that potential impacts on water quality would be mitigated.

The Proposed Project would reduce the amount of impervious surface area by approximately 38,542 square feet. Approximately 393,155 square feet of the Project site, or 68 percent, would be impervious. The Proposed Project would be regulated by Provision C.3 of the Municipal Regional Permit and required to treat runoff from all impervious areas. As stated above, the Proposed Project would implement a SWMP and install treatment facilities onsite, including bioretention areas, ponds, and landscaped areas, to capture and treat runoff from newly created or replaced impervious surfaces. These landscape features and treatment facilities would collect stormwater and then slowly release it at a controlled rate, allowing for groundwater infiltration.

The Proposed Project would maintain pre-Project drainage conditions through compliance with existing National Pollutant Discharge Elimination System permits and the City Municipal Code for stormwater management. Implementation of the SWMP would ensure that the existing drainage pattern of the site and surrounding area would not be substantially altered, and substantial erosion or flooding would not occur.

The Project site is not within a flood zone, and there is no base flood elevation for the site. However, the building design accounts for flooding and/or sea-level rise to meet the hazard mitigation and sea-level rise resiliency requirements for the O zoning district (i.e., 24 inches above the existing grade). The first-floor of the proposed building would be raised 24 inches above the existing grade to an elevation of 12.5 feet. Therefore, impacts related to hydrology and water quality would be ***less than significant***.

Land Use and Planning

The ConnectMenlo EIR concluded that implementation of ConnectMenlo would not include any new major roadways or other physical features through existing residential neighborhoods or other communities that would create new barriers in the city. The Proposed Project would not exacerbate existing barriers or create a new physical barrier that would divide an established community.

The Project site is within the O-B zoning district, which allows new office uses, along with light industrial and research- and-development uses. The Proposed Project would be consistent with the mix and intensity of development contemplated by ConnectMenlo, which includes bonus-level office development with community amenities. As noted throughout the Initial Study and this EIR, in general, the Proposed Project would not conflict with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, impacts related to land use and planning for CEQA purposes would be ***less than significant***.

Mineral Resources

The Surface Mining and Reclamation Act of 1975 is the state legislation that protects Mineral Resource Zones (MRZs). Part of the purpose of the act is to classify mineral resources in the state and transmit the information to local governments that regulate land uses in each region of the state. Local governments are responsible for designating lands that contain regionally significant mineral resources in local general plans to ensure resource conservation in areas with intensive competing land uses. The law has resulted in the preparation of mineral land classification maps, which delineate MRZs 1 through 4 for aggregate resources (i.e., sand, gravel, stone).

The Project site is not delineated as a locally important mineral resource by the California Geological Survey or indicated as such on any San Mateo County or City land use plan. The mineral resources map from the San Mateo County General Plan does not indicate that the Project site contains any significant mineral resources. Therefore, construction and operations associated with the Proposed Project would have ***no impact*** on mineral resources.

Noise (Ground-borne Vibration or Noise, Airports)

Impacts related to ground-borne noise and vibration or levels from public or private airports were scoped out from further review in the Initial Study. These impacts are summarized in Section 3.4, *Noise*.

Public Services

The ConnectMenlo EIR determined that adherence to state and City requirements, as well as the MPFPD permitting process, would ensure that the Proposed Project would not result in the need for remodeled or expanded MPFPD facilities. The Menlo Park Police Department (MPPD) also indicated that direct and indirect growth under ConnectMenlo would not require the expansion or addition of facilities. Similarly, the ConnectMenlo EIR concluded that indirect and direct growth associated with buildout of ConnectMenlo would not result in the need for additional or expanded library facilities. The Proposed Project would be served by existing libraries in the city.

The Proposed Project would indirectly generate a small number of new students (approximately 37), which the four elementary/middle school districts and one high school district that serve Menlo Park would most likely be able to accommodate. In addition, residential and non-residential development

subject to Senate Bill 50, including the Proposed Project, would be required to pay school impact fees, as established by the Leroy F. Greene School Facilities Act of 1998. Section 65996 of the Government Code states that the payment of the school impact fees established by Senate Bill 50, which may be required from a developer by any state or local agency, is deemed to constitute full and complete mitigation for school impacts from development. Therefore, with payment of the development impact fees, any impacts on schools as a result of the Proposed Project would be considered fully and completed mitigated. Furthermore, the Proposed Project would include private and public open space, including Jefferson Park, and contribute development impact fees to address infrastructure and service needs. It would not result in substantial deterioration at parks or other public facilities. Therefore, the Proposed Project's impacts on public services would be ***less than significant***.

Recreation

The ConnectMenlo EIR determined that full buildout under ConnectMenlo would result in a parkland ratio of 5.2 acres per 1,000 residents, which would exceed the City-adopted general plan policy that calls for maintaining a ratio of 5 acres of developed parkland per 1,000 residents (Policy OSC-2.4). In addition to the existing parkland in the city, which is provided at a ratio of 7.35 acres per 1,000 residents, the Proposed Project would include 128,533 square feet of public open space and 107,333 square feet of private open space, a total of 235,866 square feet of open space. Private open space would be provided in the form of patios and courtyards with tables, chairs, a seat wall, and trees as well as outdoor balconies on the third and fourth floors of the proposed building. Publicly accessible open space would be provided in the form of paseos, plazas, and a park. A 0.2-mile-long and 20-foot-wide paseo would be located along the boundaries of the Project site and available to bicyclists and pedestrians. In addition, the Proposed Project would improve the existing publicly accessible open space on the Campus Property by adding a defined plaza with seating areas, seat walls, a large trellis, and native plantings. Furthermore, the Proposed Project would construct the 0.78-acre (34,000-square-foot) Jefferson Park, which would be accessible via paseo connections from Jefferson Drive and Commonwealth Drive. The Proposed Project would not require the construction or expansion of existing public recreational facilities. Therefore, the Proposed Project's impacts on recreational facilities would be ***less than significant***.

Utilities and Service Systems (Solid Waste)

The ConnectMenlo EIR determined that all future development impacts related to landfill capacity and solid waste would be less than significant through compliance with existing regulations for minimizing impacts related to solid waste disposal. The Proposed Project would be required to comply with the City's Construction and Demolition Recycling Ordinance, which requires salvaging or recycling at least 60 percent of construction-related solid waste. In addition, per Assembly Bill 341 and Assembly Bill 939, the Proposed Project would recycle and divert 50 percent of the solid waste from landfills. Therefore, impacts related to solid waste would be ***less than significant***.

4.4 Significant and Unavoidable Environmental Impacts

Section 21100(b)(2)(A) of CEQA requires a EIR to identify any significant environmental effects that cannot be avoided. As discussed in more detail in Chapter 3.0 of this EIR, impacts related to population and housing and utilities and service systems would be less than significant and no mitigation measures would be required; further, impacts for the following environmental resources would be potentially significant without the implementation of mitigation measures, but would be reduced to a less than significant level with implementation of the mitigation measures included in this EIR:

- Transportation (VMT)
- Air Quality (Conflicts with Applicable Air Quality Plan, Increase Criteria Pollutants, Expose Sensitive Receptors)
- Greenhouse Gas Emissions (Generation of GHG Emissions and Conflicts with Applicable Plans and Polices)
- Noise (Substantial Temporary or Permanent Increase in Noise)
- Cultural Resources and Tribal Cultural Resources (Archaeological Resources, Human Remains, and Tribal Cultural Resources)
- Biological Resources (Special-Status Species and Native Wildlife Nesting Sites)

With implementation of the mitigation measures recommended in this EIR and in the Initial Study (Appendix 1-1), all impacts of the Proposed Project would be reduced to a less-than-significant level. The Proposed Project would not result in any significant and unavoidable impacts.

Chapter 5
Alternatives

5.1 Introduction

The California Environmental Quality Act (CEQA) (Public Resources Code [PRC], Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.) require that an environmental impact report (EIR) "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (State CEQA Guidelines Section 15126.6(a)). An EIR does not need to consider every conceivable alternative to the project, rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

As an EIR identifies ways to mitigate or avoid significant effects that a project may have on the environment, the discussion of alternatives should focus on alternatives to the project or its location that are capable of avoiding or substantially lessening significant effects of the project. The EIR needs to include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project, the significant effects of the alternative should be discussed, but in less detail than the significant effects of the project. If mitigation measures or a feasible project alternative that would meet most of the basic project objectives would substantially lessen the significant environmental effects of a project, then the lead agency should not approve the project unless it determines that specific technological, economic, social, or other considerations make the mitigation measures and the project alternative infeasible (PRC Section 21002, State CEQA Guidelines Section 15091(a)(3)).

The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. CEQA states that an EIR should not consider alternatives "whose effect cannot be ascertained and whose implementation is remote and speculative." The EIR must also identify alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and should briefly explain the reasons underlying the lead agency's determination (State CEQA Guidelines Section 15126.6(c)).

One of the alternatives that must be analyzed is the "No Project" Alternative. The No Project analysis must discuss the existing conditions at the time the notice of preparation (NOP) is published as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved and development continued to occur in accordance with existing plans and consistent with available infrastructure and community services (State CEQA Guidelines Section 15126.6(e)(2)). Therefore, pursuant to the State CEQA Guidelines, this section discusses and analyzes a No Project Alternative.

In addition to the No Project Alternative, this section provides additional alternatives (Reduced Project Alternative and Research and Development [R&D] Use Alternative) to the Proposed Project and analyzes the impacts of each. This section later provides a description of the alternatives and compares the significant impacts of the alternatives to the significant environmental impacts of the Project as proposed.

5.2 Description of Alternatives Considered

As discussed in Chapter 2, *Project Description*, the Project Sponsor has identified the following Project objectives that are relevant to the physical impacts considered in this document.

- Rejuvenate the property through the addition of a contemporary office building, trees, and other landscaping and a reduction in the amount of surface parking.
- Provide high-quality office space that includes energy- and water-efficient features.
- Provide office space that meets the needs of today's and tomorrow's technology tenants, including large floor plates that allow flexible floor plans.
- Create a campus feel on the property while maintaining the two existing buildings through careful placement of the Project's buildings and landscaping.
- Reduce the visual prominence of automobiles by replacing surface parking with structured parking.
- Provide an adequate amount of parking to meet tenant demand and avoid the need for employees to seek offsite parking.
- Create a pedestrian-friendly office campus that promotes walking by providing pedestrian connections between buildings, along with connections to the privately owned, publicly accessible open space (Jefferson Park) as well as adjacent parcels.
- Minimize traffic and greenhouse gas emissions by implementing a TDM program and siting the Proposed Project close to existing and planned transit stops and/or bicycle paths.
- Provide new plazas and landscaped areas with native, drought-tolerant plant species that can be used for employee interaction.
- Generate new revenue for the City, above what could be achieved without the bonus floor area.
- Provide new employment opportunities in Menlo Park.
- Provide new stormwater treatment areas that limit stormwater runoff and improve water quality.
- Create a project with the size needed to support construction and maintenance of a publicly accessible park that can be enjoyed by school districts and community members.
- Achieve the appropriate security and privacy required for the invention of new technologies by limiting public access to certain areas within the campus.

The potential environmental effects of implementing the Proposed Project are analyzed in Chapter 3, *Environmental Impact Analysis*. The Proposed Project has been described and analyzed in previous chapters and in the Initial Study (Appendix 1-1), with an emphasis on evaluating significant impacts resulting from the Proposed Project and identifying mitigation measures to avoid or reduce these impacts to a less than significant level. It should be noted that all of the impacts identified for the Proposed Project can be mitigated to a less than significant level with implementation of the recommended mitigation measures.

As stated above, the alternatives to a Proposed Project are meant to feasibly attain most of the basic Project objectives while avoiding or substantially lessening its significant impacts. Based on the goal of reducing these impacts while meeting the basic Project objectives, three Project alternatives have been developed for evaluation in this Draft EIR: the No Project Alternative, Reduced Project Alternative, and R&D Use Alternative. Table 5-1 provides a summary of key features of the Proposed Project and each alternative. Further details regarding potential impacts resulting from each alternative are provided below.

Table 5-1. Comparative Description of the Project Alternatives

	Proposed Project	No Project Alternative	Reduced Project Alternative	R&D Use Alternative
Office Square Footage Onsite[a]	509,420	259,920	459,520	509,420
New Square Footage (Building 3)	249,500	0	199,600	249,500
Number of Buildings Onsite[a]	3	2	3	3
Maximum height of Buildings (Feet)	69	67	69	69
Net New Parking Spaces (not including existing surface spots)	665	0[b]	204	424
Blended Overall Parking Ratio (%)	2.7	0	3.0	2.8
Open Space Onsite (sf)	235,866	217,549	235,866	235,866
Net New Employees	1,996	0[c]	1,597	598

Notes:
a. Gross square feet (gsf); Includes the two existing buildings at 162 and 164 Jefferson Drive (Buildings 1 and 2).
b. There are approximately 866 existing surface parking spaces onsite.
c. There were an estimated 1,550 existing employees onsite in 2019 prior to the start of the COVID-19 pandemic.

This EIR determined that the Proposed Project would not result in any significant and unavoidable impacts; therefore, these alternatives represent a reasonable range of potential alternatives to the Proposed Project in light of the objective of further reducing impacts that are already less than significant with mitigation as identified in this EIR and initial study (Appendix 1-1). The alternatives focus on policy-based alternatives that were designed to represent the range and mixed-use of development envisioned by ConnectMenlo. Several other potential alternatives were also considered, as discussed in Section 5.4, *Alternatives Considered but Rejected*; however, none of these alternatives would substantially reduce or avoid the environmental impacts of the Proposed Project and/or would not meet any of the basic Project objectives, and were therefore ultimately not selected for further analysis.

The purpose of the alternatives discussion to the Proposed Project is to enable decision makers to evaluate the project by considering how alternatives to the project as proposed might reduce or avoid the project's impacts on the physical environment. The analysis in this chapter provides an evaluation of the environmental impacts that could be associated with each alternative and compares those potential impacts to those identified for the Proposed Project as described in Chapter 3, *Environmental Impact Analysis*, of this EIR. Table 5-6, located at the end of this chapter, summarizes the impacts of the Proposed Project and compares those impacts to those that would be associated with each alternative.

If City decision-makers were to decide to move forward with any of the development alternatives as identified in this chapter, additional site planning, design work, and analysis would be required for the environmental impacts associated with the alternative, and specific mitigation measures for each potentially significant impact would need to be developed and considered.

5.3 No Project Alternative

No additional construction would occur at the Project site with implementation of the No Project Alternative. Under the No Project Alternative, the surface parking lot, and the two buildings at 162 and 164 Jefferson Drive (Buildings 1 and 2) and associated parking would remain in their existing state. The Project site would continue to encompass approximately 259,920 gross square feet (gsf) of building area. In order to meet the definition of a "no project" alternative under CEQA, the No Project Alternative would not permit discretionary approvals, entitlements, or other environmental reviews. Therefore, the surface parking lot could not be occupied by a new building and would remain a surface parking lot. No additional employees would be added to the estimated 1,550 employees at the Project site in 2019 prior to the start of the COVID-19 pandemic. The number of parking spaces would be the same as under existing conditions (866 spaces), which could be used by the occupants at 162 and 164 Jefferson Drive. The parking structure would not be constructed, and Jefferson Park would not be incorporated. Existing access to the Project site would remain the same, and no new site access points or circulation improvements would be constructed.

Reduced Project Alternative

The Reduced Project Alternative would redevelop the Project site with a plan that is similar to the Proposed Project but with a 20 percent reduction in office space and a reduced parking garage. The Reduced Project Alternative would include one, new approximately 199,600 gsf office building, consistent with the current O-B zoning district, and a new, approximately 326,000 gsf parking structure with a total of 1,194 parking stalls and 191 surface parking stalls.

Consequent to the reduced office space, the number of onsite employees would be reduced to 1,597 net new employees[1]. In total, the parking structure would provide 1,194 parking stalls and a net difference of 204 parking spaces due to the Reduced Project Alternative. The parking ratio for Building 3 would be approximately 2.6 percent. The blended, overall onsite parking ratio, with the two existing buildings plus Building 3, would be approximately 3.0 percent of the total available square footage onsite. Including the two existing buildings at 162 and 164 Jefferson Drive, the Reduced Project Alternative would result in a total of approximately 459,520 gsf of office space at the Project site.

This Draft EIR assumes that the site plan for the Reduced Project Alternative would be similar to that of the Proposed Project, with reduced building and parking structure footprints. The parking structure would be 3-floors high, which is one floor less than for the Proposed Project. This would result in footprint-based impacts that would be the same as or less than those of the Proposed Project. The maximum building height would be the same or lower than the 69 feet proposed under the Project. Also, the Reduced Project Alternative would include similar site access and circulation elements as the Proposed Project and would also include the same approximately 0.2-mile-long and 20-foot wide, public-use paseo for bicyclists and pedestrians. However, the Reduced Project Alternative would still require a Conditional Development Permit Amendment, Architectural Control, and a Below-Market-Rate Housing Agreement for the payment of in-lieu fees associated with the City's Below-Market-Rate Housing Program in order to define and ensure consistency with the development standards established in ConnectMenlo. As with the Proposed Project, the community amenity provided would be payment of the in-lieu fee; however, the amount of the in-lieu fee could be impacted by the revised appraisal value based on the Reduced Project Alternative. The Reduced Project Alternative would be required to provide the same

[1] Based on a factor of one employee per 125 sf.

amount of open space as the Proposed Project (approximately 173,500 sf of open space and 86,750 sf of public open space), which would result in a total of 235,866 sf of open space on the Campus Property. The configuration of the open space, including the area where Jefferson Park is proposed for the Proposed Project, is currently unknown; however, overall, the Reduced Project Alternative would be required to provide the same amount of open space as the Proposed Project. This Draft EIR assumes that the Reduced Project Alternative would also achieve a LEED Gold certification or equivalent for building design and construction. Like the Proposed Project, the Reduced Project Alternative would implement a Transportation Demand Management (TDM) program but at a smaller scale due to a reduced number of employees, consistent with the requirements of Menlo Park Municipal Code Section 16.43.100, to provide alternatives to single-occupancy automobile travel to and from the site. As with the Proposed Project, the Reduced Project Alternative would be accessible from the same points as the Proposed Project: the main access point at Commonwealth Drive in the southwest corner of the Campus Property and secondary access at Jefferson Drive. Vehicular, bicycle, and pedestrian routes throughout the site, as well as emergency vehicle access routes, would be similar under the Reduced Project Alternative as under the Proposed Project. It is assumed that the reduced office building and parking garage footprints would allow for increased landscaping.

Research and Development Use Alternative

The R&D Use Alternative would construct the same size new building as the Proposed Project (approximately 249,500 gsf) but would replace the use with R&D use instead of office.

With a change to R&D use, the parking ratio requirement would be reduced. Thus, the R&D Use Alternative would construct a parking garage with a reduced size and footprint of approximately 379,000 sf with 1,290 parking stalls. The R&D Use Alternative would result in 424 net new parking spaces. The blended, overall campus parking ratio (with the existing two buildings plus Building 3) would be approximately 2.8 percent of the total available square footage onsite under the R&D Use Alternative.

The R&D Use Alternative would also result in a reduction in the number of onsite employees compared to the Proposed Project because R&D uses generally generate fewer employees than office uses. Thus, the R&D Use Alternative would accommodate approximately 598 net new employees[2]. Since the new building would be the same size under the R&D Use Alternative as the Proposed Project, the same approximately 235,866 sf of open space would be provided on the site.

This Draft EIR assumes that the site plan for the R&D Use Alternative would be similar to that of the Proposed Project. Because the building footprints would be the same, all footprint-based impacts would be the same as those of the Proposed Project. The maximum building height would be the same as under the Project at 69 feet. Accordingly, the R&D Use Alternative would still require a Conditional Development Permit Amendment in order to increase the permitted building heights for bonus-level development. Furthermore, the R&D Use Alternative would still require Architectural Control, and a Below-Market-Rate Housing Agreement for the payment of in-lieu fees associated with the City's Below-Market-Rate Housing Program in order to define and ensure consistency with the development standards established in ConnectMenlo.

[2] Per the Housing Needs Assessment conducted for the Proposed Project by Keyser Marston Associates (Appendix 3.5), there is 1 employee per 417 sf of Life Sciences/R&D space. Therefore, 249,500 sf/417sf = 598 R&D employees.

This Draft EIR assumes that similar landscaping and circulation features would be installed with the R&D Use Alternative as proposed under the Project. Approximately 235,866 sf of open space would be required, approximately 128,533 sf of which would be accessible to the public in the form of landscaping around the perimeter of the Project site, as well as the same 0.2-mile-long, 20-foot-wide paseo that would be built with the Project. As with the proposed Project, the community amenity provided would be payment of the in-lieu fee; however, the amount of the in-lieu fee could be impacted by the revised appraisal value based on the R&D Use Alternative. The R&D Use Alternative would be required to provide the same amount of open space as the Proposed Project (approximately 173,500 sf of open space and 86,750 sf of public open space), which would result in a total of 235,866 sf of open space on the Campus Property. The configuration of the open space, including the area where Jefferson Park is proposed for the Proposed Project, is currently unknown; however, overall, the R&D Use Alternative would be required to provide the same amount of open space as the Proposed Project. The R&D Use Alternative would also achieve a LEED Gold certification or equivalent for building design and construction. Furthermore, like the Proposed Project, the R&D Use Alternative would implement a TDM program with similar measures but at a smaller scale due to a reduced number of employees, consistent with the requirements of Menlo Park Municipal Code Section 16.43.100, to provide alternatives to single-occupancy automobile travel to and from the site. As with the Project, the R&D Use Alternative would be accessible from the same points as proposed under the Project: the main access point at Commonwealth Drive in the southwest corner of the Campus Property; and secondary access at Jefferson Drive. Vehicular, bicycle, and pedestrian routes throughout the site, as well as emergency vehicle access routes, would remain the same under the R&D Use Alternative as under the Proposed Project. It is assumed that the reduced parking garage footprint would allow for increased landscaping.

The R&D Use Alternative is consistent with the Project site's current "Office" land use designation from the City General Plan, which also allows R&D facilities, and with the current O-B zoning designation which can "accommodate light industrial and research and development uses that do not pose hazards to or disrupt adjacent businesses or neighborhoods (Ord. 1024 § 3 (part), 2016)".

5.4 Attainment of Project Objectives

An evaluation of how each alternative meets or does not meet the basic Project objectives is provided below. Pursuant to State CEQA Guidelines Section 15126.6(a), this analysis compares the alternatives to the objectives of the Project. As described in detail above, there are three alternatives for the Project: the No Project Alternative, the Reduced Project Alternative, and the R&D Use Alternative. The following analysis describes the extent to which these alternatives meet or do not meet the Project Sponsor's objectives as described in Chapter 2, *Project Description*, and discussed above in Section 5.2.

No Project Alternative

The No Project Alternative would not meet any of the objectives to rejuvenate the Campus Property with the addition of a new, contemporary office building, new plazas and landscaping, and reduced surface parking to create a campus feel. The No Project Alternative would not meet the objectives to create high-quality office space that is energy efficient and flexible, and that could provide new employment and revenue to the City while providing the security and privacy needed for development of new technology. Instead, the Project site would remain in its current condition. The No Project Alternative would not demolish the existing surface parking lot and would not construct the proposed office building, parking structure, publicly accessible open space and Jefferson Park, and stormwater and circulation

improvements. Additionally, the No Project Alternative would not accommodate new jobs or generate City revenue from more office space and would not provide for payment of the in-lieu fee to satisfy the community amenity provisions. As such, the No Project Alternative would not meet any of the objectives of the Proposed Project.

Reduced Project Alternative

The Reduced Project Alternative would not fully achieve some of the objectives due to the reduction in size of this alternative. Due to the reduction in size, the objective of generating new revenue for the City would be slightly reduced. Nonetheless, the Reduced Project Alternative would meet other objectives to a somewhat diminished degree. The Reduced Project Alternative would partially achieve the objectives to rejuvenate the Campus Property to create a campus feel with a new, contemporary office building with flexible workspace and appropriate security and privacy; new plazas, landscaping, and stormwater capture; greater connectivity; publicly accessible open space; bicycle and pedestrian amenities; and reduced surface parking because the building program would be similar to the Proposed Project but at a reduced size. Similar to the Proposed Project, the Reduced Project Alternative would achieve the objectives to minimize traffic and greenhouse gas (GHG) emissions with implementation of a TDM program, and to provide adequate parking for employees in a parking structure.

R&D Use Alternative

The R&D Use Alternative would not fully achieve some of the objectives due to the change from office use to R&D Use. The R&D Use Alternative would not include office uses and therefore, not meet the objective of providing high quality office space. Nonetheless, the R&D Use Alternative would achieve the objectives to rejuvenate the Campus Property to create a campus feel with a new, contemporary building and appropriate security and privacy; new plazas, landscaping, and stormwater capture; greater connectivity; publicly accessible open space; bicycle and pedestrian amenities; and reduced surface parking. Similar to the Proposed Project, the R&D Use Alternative would achieve the objectives to minimize traffic and GHG emissions with implementation of a TDM program and to provide adequate parking for employees in a parking structure.

5.5 Alternatives Considered but Rejected

State CEQA Guidelines Section 15126.6(f)(2) states that a Draft EIR must consider offsite alternatives if such alternatives are deemed to be feasible by the lead agency. As stated in State CEQA Guidelines, Section 15126.6(f)(1), factors that may be considered when a lead agency is assessing the feasibility of an alternative include:

> site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent).

During the Notice of Preparation comment period, the City received verbal and written suggestions for the identification and evaluation of alternatives to the Proposed Project. The following provides a description of various potential alternatives that were identified and considered, and the reasons why they were ultimately not selected for further evaluation in this EIR.

Alternative Locations

Alternative locations for the Proposed Project were deemed infeasible because the Project Sponsor owns the Project site. An alternate location for the office uses would require additional land acquisition, which is not included in the Project Sponsor plans or objectives. In addition, the Project site is within the existing Commonwealth Corporate Center Campus and the Proposed Project would be an expansion of that Campus Property. An offsite alternative would not allow the Project Sponsor to develop in the same geographic area as the existing Campus Property, to expand its current employee base, and to develop a campus feeling with high connectivity and incorporating the existing buildings in a comprehensive plan. The objectives cannot be attained at an alternative site.

Although the Proposed Project could potentially be constructed on other similar-sized parcels within relative proximity to the Project site (e.g., Redwood City, East Palo Alto, or Mountain View), there are currently no alternative sites that have been identified in these areas that could accommodate the development intensity proposed, given the overall scarcity of land and existing land use and zoning. Furthermore, the potentially significant impacts of the Proposed Project would most likely occur regardless of location, meaning that an offsite alternative would not further reduce or avoid any potential environmental impacts. In fact, the Proposed Project is infill and proposes uses that are compatible with existing uses, which would not necessarily be achieved at an alternative location. Also, VMT reduction goals, connectivity, the rejuvenation of a campus feel in relation to existing buildings onsite, and bicycle and pedestrian amenities would likely not be as achievable at alternative locations because other site locations may not already be connected to an existing campus. As such, an alternative location would be inconsistent with virtually all of the objectives.

Therefore, because of the aforementioned issues relative to site suitability, economic viability, acquisition and control, and inconsistency with Project objectives, an alternative site for the Proposed Project has been rejected as infeasible. This Draft EIR does not analyze an offsite location alternative.

Alternative Development Scenarios

Alternatives that would consist of a permanent use other than those allowed under “office” in the City’s General Plan or in the Office (O) zone were dismissed because they would not be consistent with applicable City zoning and General Plan land use designations and policies at the Project site. In addition, uses that would not be consistent with the rest of the Campus Property were dismissed.

Alternative Development scenarios may have the potential to reduce Project-related impacts such as those pertaining to noise, transportation, air quality, and GHG emissions. However, the Project site is designated as “office” in the General Plan and is zoned Office-Bonus (O-B) under the City’s zoning ordinance as part of ConnectMenlo. Neither designations permit other types of development besides those associated with office uses, nor would any alternative development be consistent with existing land uses in the vicinity of the Project site. Any other type of development at the site is not consistent with current ConnectMenlo direction and policies to preserve land in the Commonwealth Corporate Center Campus for employment uses. Furthermore, any other type of development would be inconsistent with virtually all of the objectives. Therefore, this alternative was rejected based on its infeasibility and inability to meet the objectives of the Proposed Project.

Maximum Bonus Alternative

An alternative that would develop the Proposed Project at the maximum bonus level of development allowed in the O-B zoning district was considered and dismissed because it would likely involve considerably more environmental impacts than the Proposed Project. As such, the approximately 13.3-acre site would be developed with a FAR of 100 percent (579,348 sf) and a maximum building height of 110 feet. In addition, the Maximum Bonus Alternative would be required to provide a minimum of 173,500 sf of open space, including a minimum of 86,750 sf of public open space. The Maximum Bonus Alternative would accommodate a larger number of employees at the Project site, and result in a greater FAR. The increase in building size, which would increase the number of employees, would result in greater operational impacts than the Proposed Project in the areas of population and housing, transportation, utilities and service systems, energy, noise, air quality, and GHG emissions. This alternative has been rejected because the impacts resulting from such an increase in onsite population and building size would outweigh any commensurate benefits of increased density, including overall less open space per capita.

Reduced Parking Alternative

Under the Reduced Parking alternative, the Project site would be redeveloped at the same level as the Proposed Project, with the only difference being that the number of vehicle parking spaces would be reduced by 115 spaces, resulting in a net increase of 450 vehicle parking spaces on site.

The intent of the Reduced Parking alternative is to achieve the maximum VMT reduction allowed per the California Air Pollution Control Officers Association (CAPCOA). The VMT reduction is estimated using a CAPCOA equation which compares the proposed parking ratio against the ITE parking demand rate. The CAPCOA equation is: % VMT Reduction = [(Actual Parking Provision – ITE Parking Generation Rate) / ITE Parking Generation Rate] x 0.5. The ITE parking demand rate is 2.39 spaces per 1,000 square feet of office space. The proposed supply of 665 net new vehicle parking spaces, exceeds the ITE estimated demand for this use. To achieve the maximum 12 percent VMT reduction associated with limiting vehicle parking on-site, the number of office parking spaces would need to be reduced by 115 spaces, to provide a total of 450 net new vehicle parking spaces, or 1.8 spaces per 1,000 square feet of proposed office use.

This alternative is dismissed from further consideration because it would not reduce any significant impacts. As with the Proposed Projected, the Reduced Parking Alternative would need to achieve a minimum 24.6 percent reduction in vehicle miles traveled to reduce the project impacts to less than significant levels. Even with the maximum VMT reduction achievable through reducing available on-site parking (i.e., 12 percent), the Reduced Parking alternative would need to reduce VMT by an additional 12.6 percent to reduce impacts to less-than-significant levels. Therefore, as with the proposed project, implementation of Mitigation Measure TRA-1.1 would be required to reduce the VMT generated by the Reduced Parking Alternative's office use to a less-than-significant level and this impact would remain less than significant with mitigation (LTS/M). Although fewer TDM measures would be required under the Reduced Parking Alternative, the overall impact would remain the same. The Reduced Parking Alternative would not reduce the transportation impacts associated with the Proposed Project.

5.6 Impact Assessment

This section evaluates whether the alternatives would reduce the already less-than-significant impacts of the Proposed Project and/or generate impacts other than those identified for the Proposed Project. Summarized lists of recommended mitigation measures for each alternative are provided in the analysis below; the mitigation measures are described in each resource section within Chapters 3, 4, and 5 of this EIR. In addition, a comparative analysis between the Proposed Project and its alternatives is provided in Table 5-6, at the end of this section.

No Project Alternative

The Proposed Project would not result in any significant and unavoidable impacts; therefore, none of the alternatives would avoid or substantially lessen a significant and unavoidable impact.

Transportation

The No Project Alternative would retain the existing conditions at the Project site. The only vehicle trips to and from the Project site would be associated with the existing 162 and 164 Jefferson Drive (Buildings 1 and 2). Therefore, the No Project Alternative would result in no additional vehicle trips and no transportation-related impacts beyond those that were identified in the approvals for the prior projects. (NI)

Air Quality

The No Project Alternative would not construct new uses at the Project site and no new uses would occupy the surface parking lot. Therefore, the amount of criteria pollutant emissions currently generated at the Project site by occupants at 162 and 164 Jefferson Drive would remain the same. No new construction or operational emissions would be emitted. Since no new development would be constructed or operated under the No Project Alternative, no growth would occur, and there would be no conflict with any applicable air quality plan. As a result, no impacts to air quality would result with the No Project Alternative. (NI)

Greenhouse Gas Emissions

The No Project Alternative would not involve construction activities and would not result in net new direct GHG emissions from construction equipment. Additionally, no net new direct GHG emissions from area and mobile sources or indirect emissions from electricity generation, solid waste generation, or water consumption would be emitted, because there would be no new land uses operating at the Project site. Since this alternative would not construct the new building, and no new uses would operate on the surface parking lot, there would be no increase in GHG emissions above existing levels, resulting in no impact. (NI)

Noise

Since no construction would occur under the No Project Alternative, no construction noise would be generated. Operational noise at the Project site would remain the same because vehicle trips to the Project site (including 162 and 164 Jefferson Drive) would not increase. In addition, the No Project Alternative would not include additional heating, ventilation, and air-conditioning (HVAC) systems, or generators, all of which would generate noise under the Proposed Project. Therefore, the No Project Alternative would avoid the construction and operational noise and vibration impacts that would occur under the Proposed Project, resulting in no impacts. (NI)

Population and Housing

The No Project Alternative would result in no increase in housing or employment levels at the Project site. Accordingly, the No Project Alternative would not result in a demand for new housing units within the City or nearby local jurisdictions. The No Project Alternative would avoid any population growth, resulting in no impact to population and housing. (NI)

Utilities and Service Systems

The No Project Alternative would not change the existing use at the Project site. Utilities and services at the Project site would continue to serve the existing buildings at 162 and 164 Jefferson Drive. As no additional employees would be added to the Project site, the No Project Alternative would not demand any additional utilities or services compared to existing conditions. Compared to the Proposed Project, the No Project Alternative would avoid the Project's less-than-significant impacts on water supply, water treatment, wastewater treatment, solid waste disposal, stormwater drainage facilities, and energy consumption. (NI)

Cultural Resources and Tribal Cultural Resources

Under the No Project Alternative, there would be no excavation, grading, or demolition activities at the Project site. The Project site would remain in its current condition. Accordingly, the No Project Alternative would avoid any potential adverse impacts to archaeological resources, human remains, and tribal cultural resources. The No Project Alternative would result in no impact to cultural and tribal cultural resources. (NI)

Biological Resources

Under the No Project Alternative, there would be no excavation, grading, demolition, or other construction-related disturbances at the Project site. The Project site would remain in its current condition. Accordingly, the No Project Alternative would avoid any potential adverse impacts to biological resources. The No Project Alternative would result in no impact on biological resources. (NI)

Reduced Project Alternative

The potential impacts associated with the Reduced Project Alternative are described below. Under the Reduced Project Alternative, the Project site would be developed consistent with the existing zoning designation with office uses, at a 20 percent reduction in square footage compared to the Proposed Project. This would equate to an approximately 199,600 gsf-office building and approximately 1,597 net new employees. Maximum building height would be 69 feet. The site plan of the Reduced Project Alternative would be similar to the Proposed Project, but the new building and new parking structure would be at a reduced scale. Consistent with fewer employees, 1,070 parking spaces would be provided in the parking garage, which is a reduction, compared to the Proposed Project. Because the building footprint would be similar or reduced, all footprint-based impacts would be the same or less than the impacts of the Proposed Project, as explained below. Impacts related to construction and operation of open space would the same since the Proposed Project and the Reduced Project Alternative would be required to construct the same amount of open space.

Transportation

Under the Reduced Project Alternative, the site would be developed with the same office uses as under the Proposed Project, although at a smaller size. A smaller office building would result in fewer onsite employees and fewer vehicle trips. The transportation and circulation changes under the Reduced Project Alternative, including site access and general infrastructure improvements, would be similar to those of the Proposed Project. Therefore, the Reduced Project Alternative would result in similar or lesser impacts related to the various transportation topics including VMT; hazards due to a design feature or incompatible use; compliance with plans, policies, and ordinances; and emergency access.

Trip Generation. Though trip generation and a project's effect on automobile delay is no longer the basis upon which a project's impacts on transportation are evaluated under CEQA, travel demand under the Reduced Project Alternative was estimated for the daily weekday a.m. and p.m. peak periods. The vehicle trip generation estimates for the proposed office uses were calculated using the trip generation rates from the Institute of Transportation Engineers Trip Generation Manual (10th edition 2018)[3]. As with the Proposed Project, the land use category for General Office Building (ITE Code 710) was applied for the analysis of the Reduced Project Alternative. Consistent with Menlo Park Transportation Impact Analysis guidelines[4], anticipated vehicle trip reductions were taken into account for the TDM program. The resulting trip generation is provided in Table 5-2, along with a comparison between new vehicle trips generated under the Reduced Project Alternative and those of the Proposed Project. As shown in Table 5-2, the Reduced Project Alternative would generate 702 fewer vehicle trips on a daily basis, with 50 fewer vehicle trips during the weekday a.m. peak hour and 86 fewer vehicle trips during the weekday p.m. peak hour. Because of the reduction in size compared to the Proposed Project, the Reduced Project Alternative would result in a 16 percent, 15 percent, and 19 percent reduction in the number of vehicle trips on a daily, weekday a.m. peak-hour, and weekday p.m. peak-hour basis, respectively.

Table 5-2. Reduced Project Alternative Comparison to Proposed Project

Land Use	Size	Daily Trips	Total AM Peak-Hour Trips	Total PM Peak-Hour Trips
Reduced Project Alternative	199,600 sf 1,597 net new employees	4,495	354	455
Reductions				
20 Percent TDM Trip Reduction		(899)	(71)	(91)
Reduced Project Alternative Total		**3,596**	**283**	**364**
Proposed Project Trips with TDM Plan Reduction	249,500 sf 1,996 net new employees	4,298	333	450
Difference (Proposed Project minus Reduced Project Alternative)		**(702)**	**(50)**	**(86)**
		16% Reduction	**15% Reduction**	**19% Reduction**

Source: Institute of Transportation Engineers, *Trip Generation Manual*, 10th edition.

Note: The trip generation estimates apply the fitted curve equation for the peak hour of adjacent street traffic and is based on the assumption that the Reduced Project Alternative would generate 1,597 net new employees.

[3] Institute of Transportation Engineers. 2018. Trip Generation Manual, 10th Edition.

[4] City of Menlo Park. Ordinance No. 1026. Available: www.menlopark.org/DocumentCenter/View/12605/1026---GP-MU-District?bidId=. Accessed: September 28, 2020.

Conflict with Applicable Plans, Ordinances, or Policies. As part of the City's entitlement process, the Reduced Project Alternative would be required to comply with existing regulations, including City General Plan policies and zoning regulations. The Reduced Project Alternative would be reviewed in accordance with the Transportation Program standards and guidelines of the City Public Works Department; the department would provide oversight during the engineering review, ensuring that construction would be consistent with City specifications.

As with the Proposed Project, this alternative would provide adequate bicycle and pedestrian infrastructure and would represent an overall improvement to bicycle and pedestrian access and circulation. The Reduced Project Alternative would meet zoning ordinance requirements for vehicle and bicycle parking and implement TDM measures in an effort to reduce the number of vehicle trips and encourage travel by modes other than automobile. Therefore, the Reduced Project Alternative, like the Proposed Project, would have a less than significant impact in terms of compliance with applicable plans, ordinances, and policies. (LTS)

Vehicle Miles Traveled. The VMT impact under the Reduced Project Alternative would be the same as under the Proposed Project. Similar to the Proposed Project, the average daily VMT per employee for office land uses within the Project site's TAZ is 16.7, which is higher than the threshold of significance of 12.6. A 24.6 percent reduction in VMT would be needed to get below the VMT threshold of significance.

The estimated VMT does not account for the Proposed Project's TDM program. Without TDM measures, the Proposed Project may result in a substantial level of additional VMT, and impacts would be potentially significant. A TDM program was prepared for the Proposed Project by Hexagon Transportation Consultants, Inc. (see Appendix 3.1-2) to reduce both the number of trips and VMT. Implementation of the TDM program would achieve a minimum 24.6 percent reduction in VMT per employee. Therefore, because the Reduced Project Alternative would implement a similar TDM Program under Mitigation Measure TRA-1.1 and would have fewer employees, the Reduced Project Alternative would have a reduced impact on VMT compared to the Project. This impact would be similarly less than significant with mitigation under the Reduced Project Alternative. (LTS/M)

Hazards Due to a Design Feature or Incompatible Use. The Reduced Project Alternative would provide the same bicycle and pedestrian infrastructure as the Proposed Project, which would be adequate and an overall improvement compared to existing infrastructure, and would not create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations. Additionally, the Reduced Project Alternative, as with the Proposed Project, would require approval by the City's Public Works Department Transportation Program to ensure it is constructed according to City specifications, which are adopted to maintain safe circulation conditions for all modes of travel. (LTS)

Emergency Access. Emergency access to the Project site and nearby hospitals with the Reduced Project Alternative would be the same as under the Proposed Project, which would be similar to existing conditions and would not result in inadequate emergency access. The general increase in vehicle traffic from the Project site would not be expected to inhibit emergency access to the Project site or materially affect emergency vehicle response at the nearest fire station. Development of the Project site, and associated increases in vehicles, pedestrians, and bicycle travel would not substantially affect emergency vehicle response times or access to other buildings or land uses in the area or to hospitals. The Reduced Project Alternative would be designed and built according to the same standards and reviews and with adherence to local codes as the Proposed Project to ensure that emergency access would not be impaired. (LTS)

Cumulative Impacts. Cumulative transportation impacts with the Reduced Project Alternative would be the same as the Proposed Project: ***less than significant*** with respect to conflicts with applicable plans, hazards due to design, and emergency access (LTS), and **less *than significant with mitigation*** regarding VMT and implementation of Mitigation Measure TRA-1.1 to mitigate its individual impact and ensure consistency with ConnectMenlo. (LTS/M)

Air Quality

Conflict with or Obstruct Implementation of Air Quality Plan. Proposed development under both the Proposed Project and the Reduced Project Alternative would not conflict with the existing land use designation. Similar to the Proposed Project, the Reduced Project Alternative would support the goals of the Clean Air Plan. It would not conflict with or disrupt implementation of the applicable stationary-source control measures, transportation control measures, energy control measures, building control measures, and waste control measures included in the Clean Air Plan. However, construction of the alternative, as with the Proposed Project, would result in an exceedance of the Bay Area Air Quality Management District's (BAAQMD's) mass emission threshold for NO_X. To reduce NO_X emissions during construction, implementation of Mitigation Measure AQ-1.1 would be required. Therefore, impacts with the alternative would be less than significant with mitigation, similar to the Proposed Project. (LTS/M)

Construction Criteria Air Pollutant Emissions. Similar to the Proposed Project, construction of the Reduced Project Alternative would generate criteria pollutants and precursors from off-road equipment exhaust, construction workers' vehicles, heavy-duty trucks traveling to and from the Project site, the application of architectural coatings, and paving activities. Fugitive PM_{10} and $PM_{2.5}$ dust would also be generated during soil movement and ground disturbances, such as grading and excavation. The Reduced Project Alternative would have a reduced building size, potentially resulting in a shorter construction period that could require less construction equipment and fewer vehicles compared with the Proposed Project. However, the daily construction activities and schedule would likely be the same as the Project; therefore, daily construction emissions generated by the Reduced Project Alternative would most likely be similar to or slightly less than those of the Proposed Project. Daily construction emissions from operation of onsite equipment and on-road vehicles under the Proposed Project would be below the BAAQMD's significance thresholds for reactive organic gas (ROG), carbon monoxide (CO), and particulate matter; but would result in emissions that would exceed BAAQMD's recommended mass emissions threshold for NO_X, due to the exhaust emitted by off-road equipment used onsite and offsite truck trips. Mitigation Measure AQ-1.1 would be required to reduce NO_X emissions during construction. Also, standard BAAQMD-recommended best management practices (BMPs) and ConnectMenlo Final EIR Mitigation Measures AQ-2b1 and AQ-2b2 would be implemented to reduce PM_{10} and $PM_{2.5}$ from fugitive dust emissions. With implementation of the mitigation measures, this impact would be less than significant. (LTS/M)

Operational Criteria Air Pollutant Emissions. Operational emissions from both the Proposed Project and Reduced Project Alternative have the potential to create air quality impacts, primarily impacts associated with direct emissions from mobile sources. Motor vehicle traffic would include automobiles associated with daily employee trips and delivery trucks. The Reduced Project Alternative would result in fewer vehicle trips because of the reduction in floor area and the number of employees. The Reduced Project Alternative would generate 702 fewer vehicle trips on a daily basis (see Table 5-2), compared to the Proposed Project. Table 5-3 shows the operational air quality emissions from the Reduced Project Alternative.

Table 5-3. Estimated Unmitigated Maximum Daily Operational Emissions, Reduced Project Alternative

Emissions Source	Maximum Daily Emissions (lb./day)			
	ROG	NO_X	PM_{10}[a]	$PM_{2.5}$[a]
Area Sources	5	< 1	< 1	< 1
Vehicle Trips (Mobile Sources)	8	4	16	4
Backup Diesel Generator	< 1	< 1	< 1	< 1
Total Operational Emissions	**13**	**5**	**16**	**4**
BAAQMD Significance Threshold	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Modeling files provided in Appendix 3.2-3.

Notes:

lb./day = pounds per day; ROG= reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter

[a] BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

As shown in Table 5-3, operation of the Reduced Project Alternative would not generate levels of ROG, NO_X, or particulate matter that would exceed BAAQMD-recommended mass emissions thresholds. Therefore, similar to the Proposed Project, operation of the Reduced Project Alternative would not result in a cumulatively considerable net increase in any criteria air pollutant for which the San Francisco Bay Area Air Basin (SFBAAB) is designated as a nonattainment area with respect to the federal or state ambient air quality standards. Mitigation measures, including ConnectMenlo Final EIR Mitigation Measure AQ-2a, would not be required. This impact would be less than significant. (LTS)

Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations During Construction. Diesel-fueled engines, which generate diesel particulate matter (DPM), would be used during construction of the Reduced Project Alternative, similar to the Proposed Project. Several sensitive receptors are within 1,000 feet of the Project site, including a school and residences. The Proposed Project's construction would result in a significant increase in the cancer risk for residential receptors near the Proposed Project (prior to mitigation) and a less than significant impact related to non-cancer hazard index and annual $PM_{2.5}$ concentrations. The Reduced Project Alternative would result in a reduction in building and parking garage square footages, compared with the Proposed Project; however, as discussed above, daily construction activity could be comparable to that of the Proposed Project. Consequently, the Reduced Project Alternative's $PM_{2.5}$ concentration, along with the hazard index and cancer risk, could be similar to that of the Proposed Project but below the applicable thresholds with implementation of Mitigation Measure AQ-1.1, which would reduce DPM exposure. Similar to the Proposed Project, the Reduced Project Alternative would have a less than significant impact related to non-cancer hazard index, and annual $PM_{2.5}$ concentrations. In addition, with implementation of Mitigation Measure AQ-1.1, the Reduced Project Alternative would not exceed BAAQMD thresholds for cancer risk. This impact would be less than significant with mitigation. (LTS/M)

Other Air Emissions. Potential odor sources during construction include diesel exhaust from heavy-duty equipment and evaporative emissions generated by asphalt paving and the application of architectural coatings. Construction-related operations near existing receptors would be temporary in nature and would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7 (Odorous Substances). The odor impacts during operation would be limited and infrequent. Because there would be no change in land use under the Reduced Project Alternative compared with the Proposed Project, the same less-than-significant impacts would occur. (LTS)

Cumulative Impacts. For the reasons described above, the Reduced Project Alternative in combination with other development in Menlo Park would not conflict with or obstruct implementation of the applicable air quality plan and would not result in a cumulatively significant impact. In addition, the Reduced Project Alternative in combination with other development in Menlo Park would be consistent with the Clean Air Plan. Similar to the Proposed Project, with implementation of Mitigation Measure AQ-1.1, the Reduced Project Alternative would not exceed BAAQMD's cumulative thresholds for cancer risks associated with construction and operation. Consequently, the cumulative impact regarding health risks for sensitive receptors would be less than significant with mitigation. (LTS/M)

Greenhouse Gas Emissions

GHG Emissions during Project Construction. Construction of the Reduced Project Alternative would generate GHG emissions from heavy-duty off-road equipment, material transport, and workers' commutes. Although the construction period could be slightly shorter for this alternative due to less building and parking structure square footages, the intensity of construction activities at a given time would be similar to the Proposed Project. BAAQMD's CEQA Guidelines do not recommend a GHG emission threshold for construction-related emissions; therefore, construction of the Reduced Project Alternative would not exceed thresholds. However, the guidelines recommend implementation of BMPs to help control or reduce GHG emissions. Therefore, the impact from construction of the Reduced Project Alternative is considered less than significant with implementation of ConnectMenlo EIR Mitigation Measure AQ-2b1 and Mitigation Measure GHG-1.1. (LTS/M)

GHG Emissions during Project Operation and Conflicts with Applicable GHG Emission Plans, Policies, and Regulations. Operation of the Reduced Project Alternative would generate fewer direct and indirect GHG emissions than the Proposed Project due to a corresponding decrease in employees due to less office space. This alternative would result in fewer vehicle trips, less electricity consumption, and lower levels of waste and wastewater generation. Although the Reduced Project Alternative would still increase direct and indirect GHG emissions compared with existing conditions, there would be a reduction in the number of employees, which would have an appreciable effect on mobile GHG emissions.

Like the Proposed Project, operations associated with the Reduced Project Alternative would be aligned with the statewide GHG target for 2030 mandated by SB 32, the Menlo Park Municipal Code, Plan Bay Area 2040 and 2050, 2017 Scoping Plan, and the requirements of SB 743 regarding VMT efficiency. Like the Proposed Project, the Reduced Project Alternative would be a nonresidential project, would develop a new office building and parking structure near existing residential and commercial uses thereby reducing the demand for travel by single-occupancy vehicles, would be served by public transit, and would implement a TDM program with measures that would reduce vehicle traffic in and around the Project site. Also, the Reduced Project Alternative, like the Proposed Project, would be required to implement Mitigation Measure TRA-1.1 (Section 3.1, *Transportation)* to ensure that operations would comply with the City's VMT threshold. Implementation of these mitigation measures would result in less than significant impacts regarding compliance with all applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. (LTS/M)

Cumulative Impacts. Climate change is a global problem, and GHG impacts are inherently cumulative. This is because GHGs contribute to the global phenomenon that is climate change, regardless of where GHGs are emitted. Climate change is the result of the individual contributions of countless past, present, and future sources. Therefore, GHG impacts are inherently cumulative, and the analysis above is inclusive of cumulative impacts.

Noise

Exposure to Excessive Noise Levels. The Reduced Project Alternative, as discussed below, would expose persons to or generate noise levels in excess of standards established in the General Plan, noise ordinance, or applicable standards, similar to the Proposed Project.

Construction Noise. As with the Proposed Project, construction of the Reduced Project Alternative would require the use of heavy equipment that would temporarily increase noise levels at properties near the work sites. Although the Reduced Project Alternative would result in a smaller building, which could result in a potentially shorter construction period, noise levels at a given time during construction would be similar to the levels expected under the Proposed Project. Construction work hours for the Reduced Project Alternative would likely be comparable to those of the Proposed Project, extending from 7:00 a.m. to 6:00 p.m. Monday through Friday. Construction activities taking place between 7:00 a.m. and 8:00 a.m. and any time on Saturdays would be required to limit noise to 60 A-weighted decibels at the nearest residential property line.

As discussed for the Proposed Project, construction noise is expected to exceed the allowable daytime 60 dBA L_{eq} limit (7:00 a.m. to 8:00 a.m. on weekdays or any time on Saturday) at nearby noise-sensitive receptors and a 10 dB increase over the ambient noise level at nearby sensitive receptors. This impact would be potentially significant. With implementation of ConnectMenlo Mitigation Measure NOISE-1c, which requires construction noise reduction actions and Project Mitigation Measure NOI-1.1, which requires implementation of a noise control plan to reduce construction noise, construction of the Reduced Project Alternative would not be expected to violate relevant requirements related to construction noise in Menlo Park. As with the Proposed Project, impacts for the Reduced Project Alternative would be less than significant after mitigation. (LTS/M)

Traffic Noise Impacts. The Reduced Project Alternative would have the potential to increase noise on roadway segments in the vicinity of the Project site, although to a lesser extent than the Proposed Project because of the reduction in the number of vehicle trips. The largest Project-related traffic noise increase was estimated to be 2.1 decibel in the Project analysis. Because traffic noise increases under the Reduced Project Alternative would be lower than those under the Proposed Project, and because the Proposed Project would have less-than-significant traffic noise impacts, this alternative would also result in less-than-significant noise impacts on offsite sensitive receptors. (LTS)

Heating, Ventilation, and Air-Conditioning Systems. As with the Project, the new building associated with the Reduced Project Alternative would require similar HVAC systems. The noise levels from the new HVAC equipment would have the potential to exceed the City's allowable noise level of 50 dBA L_{eq} at 50 feet from sensitive receptors. It is possible that noise from multiple units could combine, therefore, noise impacts from HVAC equipment with the Reduced Project Alternative would be potentially significant. However, Mitigation Measure NOISE-1b from the ConnectMenlo EIR and Mitigation Measure NOI-2.1 regarding the creation of a mechanical equipment noise reduction plan would ensure that stationary noise sources and specifically mechanical equipment noise from the Reduced Project Alternative would not exceed acceptable standards. The noise impact from operation of HVAC would be less than significant after mitigation for the Reduced Project Alternative. (LTS/M)

Emergency Generator. The Reduced Project Alternative, as with the Project, would include one approximately 400-kilowatt (kW) emergency generator, which would operate only during emergencies and for intermittent testing, and which would create temporary and periodic noise during testing. The estimated noise levels at nearby sensitive uses (e.g., schools and nearby residences) indicate that noise from generator testing could exceed the City's allowable noise level of 60 dBA L_{eq} during daytime hours

and 50 dBA L_{eq} during nighttime hours. Noise impacts from emergency generator testing would be potentially significant. However, Mitigation Measure NOISE-1b from the ConnectMenlo EIR and Mitigation Measure NOI-2.1 regarding the creation of a mechanical equipment noise reduction plan would apply to the Reduced Project Alternative and would ensure that stationary noise sources and specifically mechanical equipment noise would not exceed acceptable standards. The noise impact from operation of an emergency generator would be less than significant after mitigation for the Reduced Project Alternative. (LTS/M)

Jefferson Park Activity. The Proposed Project is expected to have a less than significant impact related to noise generated from Jefferson Park. The Reduced Project Alternative would be required to provide the same amount of open space and public open space as the Proposed Project and would, therefore, result in a less than significant impact related to noise generated from the open space and public open space.

Loading Dock. As with the Proposed Project, the Reduced Project Alternative would include one loading dock. The loading dock would be constructed more than 700 feet away from the nearest residential uses and more than 800 feet from the TIDE Academy. In addition, there would be a number of intervening structures, including Building 3, between the loading dock and the nearest noise-sensitive uses. Also, because the Reduced Project Alternative would involve fewer employees and, therefore, correspondingly fewer deliveries than the 15 to 25 (maximum) daily with the Proposed Project, it would involve a correspondingly lower level of noise increase. Trucks are exempted from the City's short-term noise level limit of 60 dBA at residential land uses, provided the trucks do not idle for more than 10 minutes. State law currently prohibits heavy-duty diesel delivery trucks from idling more than 5 minutes. Additionally, given the short duration and relative infrequency of truck trips to the Project site, truck deliveries would not be a source of excessive ambient noise. As with the Proposed Project, under the Reduced Project Alternative, impacts related to truck deliveries would be less than significant. (LTS)

Parking Structure Activity. The Reduced Project Alternative, like the Proposed Project, would include a new parking structure but would be reduced in size due to fewer employees than the Proposed Project. Accordingly, it would involve a correspondingly fewer number of instances that noise can be generated in connection with parking activity such as moving vehicles, doors closing, cars starting, tires squealing, car alarms sounding, and other automotive noise which can increase the level of noise. Because of the distance between the parking structure and nearby sensitive land uses, as well as building shielding between the existing school and the proposed parking structure and the location of US 101 between the nearest homes and the proposed parking structure, temporary and periodic noise from the parking structure would be considered a nuisance noise effect that, as with the Proposed Project, would result in a less-than-significant impact. (LTS)

Cumulative Impacts. The Reduced Project Alternative would result in the same or slightly fewer cumulative noise impacts as the Proposed Project. As with the Proposed Project, cumulative exposure to excessive noise during construction of the Reduced Project Alternative would be less than cumulatively considerable with implementation of ConnectMenlo Mitigation Measure NOISE-1c, which would apply to all cumulative projects, and Mitigation Measure NOI-1.1, which would apply to this alternative. Likewise, implementation of Mitigation Measure NOISE-1b from the ConnectMenlo EIR, which would apply to all cumulative projects, and Mitigation Measure NOI-2.1, which would apply to this alternative, would be expected to reduce the cumulative impact on operational noise to less-than-significant levels and ensure that the alternative's contribution to a significant cumulative construction noise impact would not be cumulatively considerable. (LTS/M)

Population and Housing

As with the Proposed Project, the Reduced Project Alternative would not result in direct impacts on population growth or the displacement of housing or people.

Indirect Population Growth. Like the Project, the Reduced Project Alternative would not include development of new housing units. However, there would be a population increase associated with new employment during operation of this alternative. Approximately 1,597 net new employees would occupy the Project site as a result of the Reduced Project Alternative, compared to approximately 1,996 new employees under the Proposed Project.

The increase in onsite employment would result in a demand for new housing units and an indirect increase in the residential population, but it would be less than the demand under the Proposed Project because there would be fewer employees. Based on the criteria used in the HNA prepared for the Proposed Project, assuming that up to 7.4 percent of employees would live in the city, and given an average of 1.91 workers per household, the Reduced Project Alternative would result in approximately 62 new households[5] within Menlo Park. With a persons per household (pph) ratio of 2.64,[6] this alternative could result in the increase of approximately 164 new residents in the city compared to the 164 to 204 new residents expected under the Proposed Project. Therefore, this alternative would have the same or a smaller population increase than would be expected for the Proposed Project, resulting in a similar less-than-significant impact. The percentage of regional housing demand resulting from the Reduced Project Alternative, as with the Proposed Project, would be relatively small in comparison with projected housing growth planned in the region. Accordingly, the impact of the Reduced Project Alternative would be less than significant. (LTS)

Cumulative Impacts. This alternative, in combination with other projected growth in the City, would increase population, employment, and housing in the City. However, as with the Proposed Project, the contribution of the Reduced Project Alternative to any increase in population, employment, or housing demand is not cumulatively considerable. (LTS)

Utilities and Service Systems

Impacts on Water and Wastewater Treatment Facilities. As described below, there is sufficient water supply for implementation of the Reduced Project Alternative, which would not require expansion of the existing water treatment facilities serving Menlo Park Municipal Water (MPMW). Further, MPMW has sufficient capacity to accommodate the water demands of the Proposed Project. Because the Reduced Project Alternative would include fewer employees, this alternative would also not require MPMW to acquire additional water supplies with the associated requirement for water treatment. The San Francisco Public Utilities Commission (SFPUC) has sufficient capacity in its existing water treatment facilities to deliver treated water to its customers. Therefore, implementation of the Reduced Project Alternative would not require expansion of existing water treatment facilities or the construction of new facilities, similar to the Proposed Project. This alternative would have a less-than-significant impact related to water treatment facilities. (LTS)

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5 Assuming an average of 1.91 employees per household (Keyser Marston Associates 2021) in Menlo Park and up to 7.4 percent of employees live and work in Menlo Park; 1,597 new employees x 7.4 percent = 118 employees who would also live in Menlo Park. 118 employees / 1.91 employees per household = 62 households.

6 62 households x 2.64 persons per household = 164.

Water Supply. Implementation of the Reduced Project Alternative would result in approximately 399 fewer net new employees than the Proposed Project. As such, primarily due to the reduction of the number of employees, the water demand with implementation of the Reduced Project Alternative would be less than the approximately 13.7 million gallons per year[7] of water demand at full buildout of the Proposed Project. Under the Proposed Project, Menlo Park Municipal Water (MPMW) would have an adequate supply to meet its projected demands in normal years through 2040. During single and multiple dry years, water demand is similarly expected to be in line with MPMW, so long as mandatory prohibitions continue as part of a water demand management program and implementation of the Water Supply Contingency Plan (WSCP). Should the Bay-Delta Plan amendment be implemented, starting in 2023, MPMW expects to meet demand during normal water years; however, significant shortfalls during dry and multiple dry years may occur, requiring stricter reductions through the WSCP. The Reduced Project Alternative, like the Proposed Project, would be dual-plumbed for recycled water use, should recycled water use become feasible in the future. Because the Reduced Project Alternative would demand less water than the Proposed Project, implementation of this alternative also would have a less-than-significant impact on existing water supplies in MPMW's service area, and expansion of existing facilities or entitlements would not be necessary. (LTS)

Wastewater Generation. Although the Reduced Project Alternative would include fewer employees at the Project site compared to the Proposed Project, wastewater generation would still increase over existing conditions but at a lesser rate than the Proposed Project. Wastewater discharge from the Project site would constitute a small percentage of the total daily wastewater capacity of the Silicon Valley Clean Water (SVCW) wastewater treatment plant (WWTP), and would represent a small percentage of the average yearly collection rate at the West Bay Sanitary District (WBSD). Therefore, WBSD's available capacity entitlements from SVCW would be sufficient to accommodate the projected wastewater flow from implementation of the Proposed Project. Because the SVCW Regional Treatment Plant would have adequate capacity to process the wastewater generated from the Proposed Project, implementation of the Proposed Project would not exceed the wastewater treatment requirements of the San Francisco Bay RWQCB. Because the Reduced Project Alternative would generate less wastewater than the Proposed Project, the Reduced Project Alternative would not require the expansion or construction of new wastewater facilities and as with the Proposed Project, would result in less-than-significant impacts. (LTS)

Cumulative Impacts. As discussed in Section 3.6, *Utilities and Service Systems*, the City's water and wastewater have sufficient capacity to serve the cumulative development of the City. The City and its service providers would have adequate supplies to meet customer demand, including the demand of the Proposed Project combined with existing and planned future uses. Because the Reduced Project Alternative would use less water and energy and generate less wastewater, stormwater, and solid waste than the Proposed Project, impacts would not be cumulatively considerable. (LTS)

Cultural Resources and Tribal Cultural Resources

The Reduced Project Alternative would require similar demolition, grading, and ground disturbing activities as the Project. Therefore, the Reduced Project Alternative would have the same potential to affect or disturb archaeological and tribal cultural resources. The same mitigation measures would be required as those for the Proposed Project to reduce potential impacts on archaeological resources (Impact CR-1), human remains (Impact CR-2), and tribal cultural resources (Impact CR-3) to less than significant: Project Mitigation Measures CR-1.1 and CR-1.2, and ConnectMenlo Mitigation Measures CULT-2a and CULT-4. (LTS/M)

[7] Indoor water demand is estimated to be 12.8 mgy. Irrigation demand is estimated to be 0.89 mgy.

Cumulative Impacts. Construction activities on the Project site, along with other past, present and probable future development, could result in impacts on archaeological and tribal resources and human remains. However, under the Reduced Project Alternative, as with the Proposed Project, implementation of Project Mitigation Measures CR-1.1 and CR-1.2, and ConnectMenlo Mitigation Measures CULT-2a and CULT-4 would reduce the alternative's contribution to significant cumulative impacts on archaeological resources, human remains, and tribal cultural resources to less than cumulatively considerable after mitigation. (LTS/M)

Biological Resources

The Reduced Project Alternative would have similar or slightly lesser construction impacts as the Proposed Project since the construction timeframe may be somewhat reduced. However, the same demolition, grading, and ground disturbing activities would be necessary. It is currently unknown how many trees would be removed for the Reduced Project Alternative; however, due to the reduced size of the alternative, the number of removed trees could be less than, but similar to the Proposed Project (327 non-heritage trees). As such, the Reduced Project Alternative would similarly be required to implement Mitigation Measures BR-1, BR-2, BR-3, and BR-4 to reduce potential impacts on special-status species, including tree nesting raptors (Impact BIO-1) and to ensure it would not affect wildlife movement and native wildlife nursery sites (Impact BIO-2). Likewise, operational impacts on biological resources would be the same or similar to the Proposed Project. (LTS/M)

Cumulative Impacts. The Reduced Project Alternative, as with the Proposed Project, would be required to implement ConnectMenlo EIR Mitigation Measure BIO-1.1 to reduce cumulative impacts on biological resources to less than significant. (LTS/M)

R&D Use Alternative

The potential impacts associated with the R&D Use Alternative are described below. Under the R&D Use Alternative, the Project site would be developed with the same new building (509,420 gsf) and site plan as the Proposed Project but with a change to R&D use instead of office use. This is consistent with the existing zoning designation. Because R&D uses generally generate fewer employees, total onsite employees and parking provisions would be reduced to 1,290 spaces. Because the new building footprint would be similar, all footprint-based impacts would be the same as the impacts of the Proposed Project, as explained below. Because the parking garage would be reduced, the footprint-based impacts of the parking structure would be the same as or reduced compared to the Proposed Project. Impacts related to construction and operation of open space would the same since the Proposed Project and the Reduced Project Alternative would be required to construct the same amount of open space.

Transportation

Under the R&D Use Alternative, the Project site would be developed with R&D uses instead of office uses. This change would result in fewer onsite employees and fewer vehicle trips. The transportation and circulation changes under the R&D Use Alternative, including site access and general infrastructure improvements, would be similar to those of the Proposed Project. Therefore, the R&D Use Alternative would result in similar or reduced impacts related to the various transportation topics including VMT; hazards due to a design feature or incompatible use; compliance with plans, policies, and ordinances; and emergency access.

Trip Generation. Though trip generation and a project's effect on automobile delay is no longer the basis upon which a project's impacts on transportation are evaluated under CEQA, travel demand under the R&D Use Alternative was estimated for the daily weekday a.m. and p.m. peak periods. The vehicle trip generation estimates for the proposed R&D uses were calculated using the trip generation rates from the Institute of Transportation Engineers Trip Generation Manual (10th edition 2018)[8]. The land use category for Research and Development Center (ITE Code 760) was applied for the R&D Use Alternative. Consistent with Menlo Park Transportation Impact Analysis guidelines[9], anticipated vehicle trip reductions were taken into account for the TDM program. The resulting trip generation is provided in Table 5-4, along with a comparison between new vehicle trips generated under the R&D Use Alternative and those of the Proposed Project. As shown in Table 5-4, the R&D Use Alternative would generate 2,681 fewer vehicle trips on a daily basis, with 102 fewer vehicle trips during the weekday a.m. peak hour and 220 fewer vehicle trips during the weekday p.m. peak hour. Because of the reduction of employees compared to the Proposed Project, the R&D Use Alternative would result in a 62 percent, 31 percent, and 49 percent reduction in the number of vehicle trips on a daily, weekday a.m. peak-hour, and weekday p.m. peak-hour basis, respectively.

Table 5-4. R&D Use Alternative Comparison to Proposed Project

Land Use	Size	Daily Trips	Total AM Peak-Hour Trips	Total PM Peak-Hour Trips
R&D Use Alternative	249,500 sf 598 net new employees	2,021	289	287
Reductions				
20 Percent TDM Trip Reduction		(404)	(58)	(57)
R&D Use Alternative Total		**1,617**	**231**	**230**
Proposed Project Trips with TDM Plan Reduction	249,500 sf 1,996 net new employees	4,298	333	450
Difference (Proposed Project minus R&D Use Alternative)		**(2,681)** **62% Reduction**	**(102)** **31% Reduction**	**(220)** **49% Reduction**

Source: Institute of Transportation Engineers, *Trip Generation Manual*, 10th edition.
Note: The trip generation estimates apply the fitted curve equation for the peak hour of adjacent street traffic, and is based on the assumption that the R&D Use Alternative would generate 598 net new employees.

Conflict with Applicable Plans, Ordinances, or Policies. As part of the City's entitlement process, the R&D Use Alternative would be required to comply with existing regulations, including City General Plan policies and zoning regulations. The R&D Use Alternative would be reviewed in accordance with the Transportation Program standards and guidelines of the City Public Works Department; the department would provide oversight during the engineering review, ensuring that construction would be consistent with City specifications.

As with the Proposed Project, the R&D Use alternative would provide adequate bicycle and pedestrian infrastructure and would represent an overall improvement to bicycle and pedestrian access and circulation. The R&D Use Alternative would meet zoning ordinance requirements for vehicle and bicycle

[8] Institute of Transportation Engineers. 2018. Trip Generation Manual, 10th Edition.

[9] City of Menlo Park. Ordinance No. 1026. Available: www.menlopark.org/DocumentCenter/View/12605/1026---GP-MU-District?bidId=. Accessed: September 28, 2020.

parking and implement TDM measures in an effort to reduce the number of vehicle trips and encourage travel by modes other than automobile. Therefore, the R&D Use Alternative, like the Proposed Project, would have a less than significant impact in terms of compliance with applicable plans, ordinances, and policies. (LTS)

Vehicle Miles Traveled. The VMT impact under the R&D Use Alternative would be the same as under the Proposed Project. Similar to the Proposed Project, the average daily VMT per employee for office land uses within the Project site's TAZ is 16.7, which is higher than the threshold of significance of 12.6. A 24.6 percent reduction in VMT would be needed to get below the VMT threshold of significance.

The estimated VMT does not account for the Proposed Project's TDM program. Without TDM measures, the Proposed Project may result in a substantial level of additional VMT, and impacts would be potentially significant. A TDM program was prepared for the Proposed Project by Hexagon Transportation Consultants, Inc. (see Appendix 3.1-2) to reduce both the number of trips and VMT. Implementation of the TDM program would achieve a minimum 24.6 percent reduction in VMT per employee. Therefore, because the R&D Use Alternative would implement a similar TDM Program under Mitigation Measure TRA-1.1 and would have fewer employees, the R&D Use Alternative would have a reduced impact on VMT compared to the Project. This impact would be similarly less than significant with mitigation under the R&D Use Alternative. (LTS/M)

Hazards Due to a Design Feature or Incompatible Use. The R&D Use Alternative would provide the same bicycle and pedestrian infrastructure as the Proposed Project, which would be adequate and an overall improvement compared to existing infrastructure, and would not create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations. Additionally, the R&D Use Alternative, as with the Proposed Project, would require approval by the City's Public Works Department Transportation Program to ensure it is constructed according to City specifications. (LTS)

Emergency Access. Emergency access to the Project site and nearby hospitals with the R&D Use Alternative would be the same as under the Proposed Project, which would be similar to existing conditions and would not result in inadequate emergency access. The general increase in vehicle traffic from the Project site would not be expected to inhibit emergency access to the Project site or materially affect emergency vehicle response at the nearest fire station. Development of the Project site, and associated increases in vehicles, pedestrians, and bicycle travel would not substantially affect emergency vehicle response times or access to other buildings or land uses in the area or to hospitals. The R&D Use Alternative would be designed and built according to the same standards and reviews and with adherence to local codes as the Proposed Project to ensure that emergency access would not be impaired. (LTS)

Cumulative Impacts. Cumulative transportation impacts with the R&D Use Alternative would be the same as the Proposed Project: ***less than significant*** with respect to conflicts with applicable plans, hazards due to design, and emergency access (LTS), and **less *than significant with mitigation*** regarding VMT and implementation of Mitigation Measure TRA-1.1 to mitigate its individual impact and ensure consistency with ConnectMenlo. (LTS/M)

Air Quality

Conflict with or Obstruct Implementation of Air Quality Plan. Proposed development under both the Proposed Project and the R&D Use Alternative would not conflict with the existing land use designation. Similar to the Proposed Project, the R&D Use Alternative would support the goals of the Clean Air Plan. It would not conflict with or disrupt implementation of the applicable stationary-source control measures, transportation control measures, energy control measures, building control measures, and waste control

measures included in the Clean Air Plan. However, construction of the alternative, which would be similar to or slightly reduced compared to the Proposed Project, would result in an exceedance of BAAQMD's mass emission threshold for NO_X. To reduce NO_X emissions during construction, implementation of Mitigation Measure AQ-1.1 would be required. Therefore, impacts with the alternative would be less than significant with mitigation, similar to the Project. (LTS/M)

Construction Criteria Air Pollutant Emissions. Similar to the Proposed Project, construction of the R&D Use Alternative would generate criteria pollutants and precursors from off-road equipment exhaust, construction workers' vehicles, heavy-duty trucks traveling to and from the Project site, the application of architectural coatings, and paving activities. Fugitive PM_{10} and $PM_{2.5}$ dust would also be generated during soil movement and ground disturbances, such as grading and excavation. However, the R&D Use Alternative would have a reduced parking garage; thus the reduced parking garage would potentially result in a shorter construction period that could require less construction equipment and fewer construction vehicles compared with the Proposed Project. However, the level and daily duration of construction activities are still likely to be similar to the Project. Therefore, daily construction emissions generated by the R&D Use Alternative would most likely be similar to or slightly less than those of the Proposed Project. Daily construction emissions from operation of onsite equipment and on-road vehicles under the Proposed Project would be below BAAQMD's significance thresholds for ROG, CO, and particulate matter; but would result in emissions that would exceed BAAQMD's recommended mass emissions threshold for NO_X, due to the exhaust emitted by off-road equipment used onsite and offsite truck trips. Mitigation Measure AQ-1.1 would be required to reduce NO_X emissions during construction. Also, standard BAAQMD-recommended BMPs and ConnectMenlo Final EIR Mitigation Measures AQ-2b1 and AQ-2b2 would be implemented to reduce PM_{10} and $PM_{2.5}$ from fugitive dust emissions. With implementation of the mitigation measures, this impact would be less than significant. (LTS/M)

Operational Criteria Air Pollutant Emissions. Operational emissions from both the Proposed Project and R&D Use Alternative have the potential to create air quality impacts, primarily impacts associated with direct emissions from mobile sources. Motor vehicle traffic would include automobiles associated with daily employee trips and delivery trucks. The R&D Use Alternative would result in fewer vehicle trips because of the reduction in the number of employees. The R&D Use Alternative would generate 2,681 fewer vehicle trips on a daily basis (see Table 5-2), compared to the Proposed Project. Table 5-5 shows the operational air quality emissions from the R&D Use Alternative.

Table 5-5. Estimated Unmitigated Maximum Daily Operational Emissions, R&D Use Alternative

	Maximum Daily Emissions (lb./day)			
Emissions Source	**ROG**	**NO_X**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Area Sources	6	< 1	< 1	< 1
Vehicle Trips (Mobile Sources)	4	2	7	2
Backup Diesel Generator	< 1	< 1	< 1	< 1
Total Operational Emissions	**10**	**4**	**7**	**2**
BAAQMD Significance Threshold	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Modeling files provided in Appendix 3.2-3.

Notes:

lb./day = pounds per day; ROG= reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter.

a. BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

As shown in Table 5-5, operation of the R&D Use Alternative would not generate levels of ROG, NO_X, or particulate matter that would exceed BAAQMD-recommended mass emissions thresholds. Therefore, similar to the Proposed Project, operation of the R&D Use Alternative would not result in a cumulatively considerable net increase in any criteria air pollutant for which the SFBAAB is designated as a nonattainment area with respect to the federal or state ambient air quality standards. Mitigation measures, including ConnectMenlo Final EIR Mitigation Measure AQ-2a, would not be required. This impact would be less than significant. (LTS)

Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations During Construction. Diesel-fueled engines, which generate DPM, would be used during construction of the R&D Use Alternative, similar to the Proposed Project. Several sensitive receptors are within 1,000 feet of the Project site, including a school and residences. The Proposed Project's construction would result in a significant increase in the cancer risk for residential receptors near the Proposed Project (prior to mitigation) and a less than significant impact related to non-cancer hazard index and annual $PM_{2.5}$ concentrations. The R&D Use Alternative would result in a reduction in parking garage square footage, compared with the Proposed Project; however, as discussed above, daily construction activity could be comparable to that of the Proposed Project. Consequently, the R&D Use Alternative's $PM_{2.5}$ concentration, along with the hazard index and cancer risk, could be similar to that of the Proposed Project but below the applicable thresholds with implementation of Mitigation Measure AQ-1.1, which would reduce DPM exposure. Similar to the Proposed Project, the R&D Use Alternative would have a less than significant impact related to non-cancer hazard index, and annual $PM_{2.5}$ concentrations. In addition, with implementation of Mitigation Measure AQ-1.1, the R&D Use Alternative would not exceed BAAQMD thresholds for cancer risk. This impact would be less than significant with mitigation. (LTS/M)

Other Air Emissions. Potential odor sources during construction include diesel exhaust from heavy-duty equipment and evaporative emissions generated by asphalt paving and the application of architectural coatings. Construction-related operations near existing receptors would be temporary in nature and would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7 (Odorous Substances). The odor impacts during operation would be limited and infrequent. Because there would be no change in land use under the R&D Use Alternative compared with the Proposed Project, the same less-than-significant impacts would occur. (LTS)

Cumulative Impacts. For the reasons described above, the R&D Use Alternative in combination with other development in Menlo Park would not conflict with or obstruct implementation of the applicable air quality plan and would not result in a cumulatively significant impact. In addition, the R&D Use Alternative in combination with other development in Menlo Park would be consistent with the Clean Air Plan. Similar to the Proposed Project, with implementation of Mitigation Measure AQ-1.1, the R&D Use Alternative would not exceed BAAQMD's cumulative thresholds for cancer risks associated with construction and operation. Consequently, the cumulative impact regarding health risks for sensitive receptors would be less than significant with mitigation. (LTS/M)

Greenhouse Gas Emissions

GHG Emissions during Project Construction. Construction of the R&D Use Alternative would generate GHG emissions from heavy-duty off-road equipment, material transport, and workers' commutes. Although the construction period could be slightly shorter for this alternative due to a smaller parking structure and thus the intensity of construction activities at a given time would be similar to the Proposed Project. BAAQMD's CEQA Guidelines do not recommend a GHG emission threshold for construction-related emissions; therefore, construction of the R&D Use Alternative would not exceed thresholds.

However, the guidelines recommend implementation of BMPs to help control or reduce GHG emissions. Therefore, the impact from construction of the R&D Use Alternative is considered less than significant with implementation of ConnectMenlo EIR Mitigation Measure AQ-2b1 and Mitigation Measure GHG-1.1. (LTS/M)

GHG Emissions during Project Operation and Conflicts with Applicable GHG Emission Plans, Policies, and Regulations. Operation of the R&D Use Alternative would generate fewer direct and indirect GHG emissions than the Proposed Project due to a corresponding decrease in employees related to R&D use. This alternative would result in fewer vehicle trips, less electricity generation and consumption, and lower levels of waste and wastewater generation. Although the R&D Use Alternative would still increase direct and indirect GHG emissions compared with existing conditions, there would be a reduction in the number of employees, which would have an appreciable effect on mobile GHG emissions.

Like the Proposed Project, operations associated with the R&D Use Alternative would be aligned with the statewide GHG target for 2030 mandated by SB 32, the Menlo Park Municipal Code, Plan Bay Area 2040 and 2050, 2017 Scoping Plan, and the requirements of SB 743 regarding VMT efficiency. Like the Proposed Project, the R&D Use Alternative would be a nonresidential project, would develop a new R&D building and parking structure near existing residential and commercial uses thereby reducing the demand for travel by single-occupancy vehicles, would be served by public transit, and would implement a TDM program with measures that would reduce vehicle traffic in and around the Project site. Also, the R&D Use Alternative, like the Proposed Project, would be required to implement Mitigation Measure TRA-1.1 (Section 3.1, *Transportation*) to ensure that operations would comply with the City's VMT threshold. Implementation of these mitigation measures would result in less-than-significant impacts regarding compliance with all applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. (LTS/M)

Cumulative Impacts. Climate change is a global problem, and GHG impacts are inherently cumulative. This is because GHGs contribute to the global phenomenon that is climate change, regardless of where GHGs are emitted. Climate change is the result of the individual contributions of countless past, present, and future sources. Therefore, GHG impacts are inherently cumulative, and the analysis above is inclusive of cumulative impacts.

Noise

Exposure to Excessive Noise Levels. As is the case with the Proposed Project, the R&D Use Alternative would expose persons to or generate noise levels in excess of standards established in the General Plan, noise ordinance, or applicable standards, as discussed below.

Construction Noise. As with the Proposed Project, construction of the R&D Use Alternative would require the use of heavy equipment that would temporarily increase noise levels at properties near the work sites. Although construction of the R&D Use Alternative with a smaller parking garage could result in a potentially shorter construction period, noise levels at a given time during construction would be similar to the levels expected under the Proposed Project. Construction work hours for the alternative would likely be comparable to those of the Proposed Project, extending from 7:00 a.m. to 6:00 p.m. Monday through Friday. Construction activities taking place between 7:00 a.m. and 8:00 a.m. and any time on Saturdays would be required to limit noise to 60 A-weighted decibels at the nearest residential property line.

As discussed for the Proposed Project, construction noise is expected to exceed the allowable daytime 60 dBA L_{eq} limit (7:00 a.m. to 8:00 a.m. on weekdays or any time on Saturday) at nearby noise-sensitive receptors and a 10 dB increase over the ambient noise level at nearby sensitive receptors. This impact would be potentially significant. With implementation of ConnectMenlo Mitigation Measure NOISE-1c, which requires construction noise reduction actions and Project Mitigation Measure NOI-1.1, which requires implementation of a noise control plan to reduce construction noise, construction of the R&D Use Alternative would not be expected to violate relevant requirements related to construction noise in Menlo Park. As with the Proposed Project, impacts for the R&D Use Alternative would be less than significant after mitigation. (LTS/M)

Traffic Noise Impacts. The R&D Use Alternative would have the potential to increase noise on roadway segments in the vicinity of the Project site, although to a lesser extent than the Proposed Project because of the reduction in the number of vehicle trips. The largest Project-related traffic noise increase was estimated to be 2.1 decibel in the Project analysis. Because traffic noise increases under the R&D Use Alternative would be lower than those under the Proposed Project, and because the Proposed Project would have less-than-significant traffic noise impacts, this alternative would also result in less-than-significant noise impacts on offsite sensitive receptors. (LTS)

Heating, Ventilation, and Air-Conditioning Systems. The new building associated with the R&D Use Alternative would be generally the same as the Proposed Project and would require the same HVAC systems. The noise levels from the new HVAC equipment would have the potential to exceed the City's allowable noise level of 50 dBA L_{eq} at 50 feet from sensitive receptors. It is possible that noise from multiple units could combine; therefore, noise impacts from HVAC equipment with the R&D Use Alternative would be potentially significant. However, Mitigation Measure NOISE-1b from the ConnectMenlo EIR and Mitigation Measure NOI-2.1 regarding the creation of a mechanical equipment noise reduction plan would ensure that stationary noise sources and specifically mechanical equipment noise would not exceed acceptable standards. The noise impact from operation of HVAC would be less than significant after mitigation for the R&D Use Alternative. (LTS/M)

Emergency Generator. The R&D Use Alternative, as with the Proposed Project, would include one approximately 400-kW emergency generator, which would operate only during emergencies and for intermittent testing, and which would create temporary and periodic noise during testing. The estimated noise levels at nearby sensitive uses (e.g., schools and nearby residences) indicate that noise from generator testing could exceed the City's allowable noise level of 60 dBA L_{eq} during daytime hours and 50 dBA L_{eq} during nighttime hours. Noise impacts from emergency generator testing would be potentially significant. However, Mitigation Measure NOISE-1b from the ConnectMenlo EIR and Mitigation Measure NOI-2.1 regarding the creation of a mechanical equipment noise reduction plan would apply to the R&D Use Alternative and would ensure that stationary noise sources and specifically mechanical equipment noise would not exceed acceptable standards. The noise impact from operation of an emergency generator would be less than significant after mitigation for the R&D Use Alternative. (LTS/M)

Jefferson Park Activity. The Proposed Project is expected to have a less than significant impact related to noise generated from Jefferson Park. The R&D Use Alternative would be required to provide the same amount of open space and public open space as the Proposed Project and would, therefore, result in a less than significant impact related to noise generated from the open space and public open space.

Loading Dock. As with the Proposed Project, the R&D Use Alternative would include one loading dock. The loading dock would be constructed more than 700 feet away from the nearest residential uses and more than 800 feet from the TIDE Academy. In addition, there would be a number of intervening structures,

including Building 3, between the loading dock and the nearest noise-sensitive uses. Also, because the R&D Use Alternative would involve fewer employees and, therefore, correspondingly fewer deliveries than the 15 to 25 (maximum) daily with the Proposed Project, it would involve a correspondingly lower level of noise increase. Trucks are exempted from the City's short-term noise level limit of 60 dBA at residential land uses, provided the trucks do not idle for more than 10 minutes. State law currently prohibits heavy-duty diesel delivery trucks from idling more than 5 minutes. Additionally, given the short duration and relative infrequency of truck trips to the Project site, truck deliveries would not be a source of excessive ambient noise. As with the Proposed Project, under the R&D Use Alternative, impacts related to truck deliveries would be less than significant. (LTS)

Parking Structure Activity. The R&D Use Alternative, like the Proposed Project, would include a new parking structure. Because the R&D Use Alternative would involve fewer employees and less parking than the Proposed Project, it would involve a correspondingly fewer number of instances that noise can be generated in connection with parking activity such as moving vehicles, doors closing, cars starting, tires squealing, car alarms sounding, and other automotive noise which can increase the level of noise Because of the distance between the parking structure and nearby sensitive land uses, as well as building shielding between the existing school and the proposed parking structure and the location of US 101 between the nearest homes and the proposed parking structure, temporary and periodic noise from the parking structure would be considered a nuisance noise effect that, as with the Proposed Project, would result in a less-than-significant impact. (LTS)

Cumulative Impacts. The R&D Use Alternative would result in the same or slightly fewer cumulative noise impacts as the Proposed Project. As with the Proposed Project, cumulative exposure to excessive noise during construction of the alternative would be less than cumulatively considerable with implementation of ConnectMenlo Mitigation Measure NOISE-1c, which would apply to all cumulative projects, and Mitigation Measure NOI-1.1, which would apply to this alternative**]**. Likewise, implementation of Mitigation Measure NOISE-1b from the ConnectMenlo EIR, which would apply to all cumulative projects, and Mitigation Measure NOI-2.1, which would apply to this alternative, would be expected to reduce the cumulative impact on operational noise to less-than-significant levels and ensure that the alternative's contribution to a significant cumulative construction noise impact would not be cumulatively considerable. (LTS/M)

Population and Housing

As with the Proposed Project, the R&D Use Alternative would not result in direct impacts on population growth or the displacement of housing or people.

Indirect Population Growth. The R&D Use Alternative would not include development of new housing units. However, there would be a population increase associated with new employment during operation of this alternative. Approximately 598 net new R&D employees would occupy the Project site as a result of the R&D Use Alternative compared to approximately 1,996 new office employees under the Proposed Project. This alternative's increase in onsite employment would result in a demand for new housing units and an indirect increase in the residential population, but it would be less than the demand under the Proposed Project because there would be fewer employees. Based on the criteria used in the HNA prepared for the Proposed Project, assuming that up to 7.4 percent of employees would live in the city, and given an average of 1.91 workers per household, the R&D Use Alternative would result in

approximately 23 new households[10] within Menlo Park. With a persons per household (pph) ratio of 2.64,[11] this alternative could result in the increase of approximately 61 new residents in the city compared to the 164 to 204 new residents expected under the Proposed Project. Therefore, this alternative would cause a smaller population increase than would be expected for the Proposed Project, resulting in a similar less-than-significant impact. The percentage of regional housing demand resulting from the R&D Use Alternative, as with the Proposed Project, would be relatively small in comparison with projected housing growth in the region. Accordingly, the impact of the R&D Use Alternative would be less than significant. (LTS)

Cumulative Impacts. This alternative, in combination with other projected growth in the City, would increase population, employment, and housing in the City. However, as with the Proposed Project, the contribution of the R&D Use Alternative to any increase in population, employment, or housing demand is not cumulatively considerable. (LTS)

Utilities and Service Systems

Impacts on Water and Wastewater Treatment Facilities. As described below, there is sufficient water supply for implementation of the R&D Use Alternative, which would not require expansion of the existing water treatment facilities serving MPMW. Further, MPMW has sufficient capacity to accommodate the water demands of the Proposed Project. Because the R&D Use Alternative would have fewer employees, this alternative would also not require MPMW to acquire additional water supplies with the associated requirement for water treatment. The SFPUC has sufficient capacity in its existing water treatment facilities to deliver treated water to its customers. Therefore, implementation of the R&D Use Alternative would not require expansion of existing water treatment facilities or the construction of new facilities, similar to the Proposed Project. This alternative would have a less-than-significant impact related to water treatment facilities. (LTS)

Water Supply. Implementation of the R&D Use Alternative would result in approximately 1,398 fewer net new employees than the Proposed Project. As such, the water demand with implementation of the R&D Use Alternative would be similar or less than the approximately 13.7 million gallons per year[12] of water demand at full buildout of the Proposed Project. Under the Proposed Project, the MPMW would have an adequate supply to meet its projected demands in normal years through 2040. During single and multiple dry years, water demand is similarly expected to be in line with MPMW so long as mandatory prohibitions continue as part of a water-demand management program and implementation of the WSCP. Should the Bay-Delta Plan amendment be implemented, starting in 2023, MPMW expects to meet demand during normal water years; however, significant shortfalls during dry and multiple dry years may occur, requiring stricter reductions through the WSCP. The R&D Use alternative, like the Proposed Project, would also be dual-plumbed for recycled water use, should recycled water use become feasible in the future. Because the R&D Use Alternative would demand less water than the Proposed Project, implementation of this alternative also would have a less-than-significant impact on existing water supplies in MPMW's service area, and expansion of existing facilities or entitlements would not be necessary. (LTS)

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[10] Assuming an average of 1.91 employees per household (Keyser Marston Associates 2021) in Menlo Park and up to 7.4 percent of employees live and work in Menlo Park; 598 new employees x 7.4 percent = 44 employees who would also live in Menlo Park 44 employees / 1.91 employees per household = 23 households.

[11] 23 households x 2.64 persons per household = 61 residents.

[12] Indoor water demand for the Proposed Project is estimated to be 12.8 mgy. Irrigation demand is estimated to be 0.89 mgy.

Wastewater Generation. Although the R&D Use Alternative would have fewer onsite employees than the Proposed Project, wastewater generation would still increase over existing conditions but at a lesser rate than the Proposed Project. Wastewater discharge from the Project site would constitute a small percent of the total daily capacity of the SVCW WWTP, and would represent a small percent of the average yearly collection rate at the WBSD. Therefore, WBSD's available capacity entitlements from SVCW would be sufficient to accommodate the projected wastewater from implementation of the Proposed Project. Because the SVCW Regional Treatment Plant would have adequate capacity to process the wastewater generated from the Proposed Project, implementation of the Proposed Project would not exceed the wastewater treatment requirements of the San Francisco Bay RWQCB. Because the R&D Use Alternative would generate similar or less wastewater than the Proposed Project, the R&D Use Alternative would not require the expansion or construction of new wastewater facilities and as with the Proposed Project would result in less-than-significant impacts. (LTS)

Cumulative Impacts. As discussed in Section 3.6, *Utilities and Service Systems*, the City's water and wastewater systems have sufficient capacity to serve the cumulative development of the City. The City and its service providers would have adequate supplies to meet customer demand, including the demand of the Proposed Project combined with existing and planned future uses. Because the R&D Use Alternative would use less water and energy and generate less wastewater, stormwater, and solid waste than the Proposed Project, impacts would not be cumulatively considerable. (LTS)

Cultural Resources and Tribal Cultural Resources

The R&D Use Alternative would require similar demolition, grading, and ground disturbing activities as the Project. Therefore, the R&D Use Alternative would have the same potential to affect or disturb archaeological and tribal cultural resources. The same mitigation measures would be required as those for the Proposed Project to reduce potential impacts on archaeological resources (Impact CR-1), human remains (Impact CR-2), and tribal cultural resources (Impact CR-3) to less than significant: Project Mitigation Measures CR-1.1 and CR-1.2, and ConnectMenlo Mitigation Measures CULT-2a and CULT-4. (LTS/M)

Cumulative Impacts. Construction activities on the Project site, along with other past, present and probable future development, could result in impacts on archaeological and tribal resources and human remains. However, under the R&D Use Alternative, as with the Proposed Project, implementation of Project Mitigation Measures CR-1.1 and CR-1.2, and ConnectMenlo Mitigation Measures CULT-2a and CULT-4 would reduce the alternative's contribution to significant cumulative impacts on archaeological resources, human remains, and tribal cultural resources to less than cumulatively considerable after mitigation. (LTS/M)

Biological Resources

The R&D Use Alternative would have the same construction impacts as the Proposed Project because the footprint would be the same. The same demolition, grading, and ground disturbing activities would be necessary. It is currently unknown how many trees would be removed for the R&D Use Alternative; however, because the building size and the amount of open space that would be implemented would be the same as the Proposed Project, tree removal for the R&D Use Alternative is expected to the same as the Proposed Project (327 non-heritage trees). As such, the R&D Use Alternative would similarly be required to implement Mitigation Measures BR-1, BR-2, BR-3, and BR-4 to reduce potential impacts on special-status species, including tree nesting raptors (Impact BIO-1) and to ensure it would not affect wildlife movement and native wildlife nursery sites (Impact BIO-2). Likewise, operational impacts on biological resources would be the same or similar to the Proposed Project. (LTS/M)

Cumulative Impacts. The R&D Use Alternative, as with the Proposed Project, would be required to implement ConnectMenlo EIR Mitigation Measure BIO-1.1 to reduce cumulative impacts on biological resources to less than significant. (LTS/M)

5.7 Comparison of Impacts

CEQA Guidelines Section 15126.6 requires a comparison of the alternatives to the Proposed Project (presented above), and suggests that a matrix be used to summarize the comparison. Table 5-6 below, compares the impacts of the Proposed Project to those of the alternatives.

Table 5-6. Comparison of Impacts among Project Alternatives

Environmental Issue	Proposed Project	No Project Alternative	Reduced Project Alternative	R&D Use Alternative
Transportation				
Conflict with applicable plan, ordinance, or policy	LTS	NI	LTS	LTS
Exceed the applicable VMT threshold of significance	LTS/M	NI	LTS/M	LTS/M
Hazards due to design feature or incompatible uses	LTS	NI	LTS	LTS
Emergency access	LTS	NI	LTS	LTS
Cumulative Impacts	LTS/M	NI	LTS/M	LTS/M
Air Quality				
Conflict with Air Quality Plan	LTS/M	NI	LTS/M	LTS/M
Construction Criteria Air Pollutant Emissions	LTS/M	NI	LTS/M	LTS/M
Operational Criteria Air Pollutant Emissions	LTS	NI	LTS	LTS
Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations during Construction	LTS/M	NI	LTS/M	LTS/M
Other Air Emissions	LTS	NI	LTS	LTS
Cumulative Impacts	LTS/M	NI	LTS/M	LTS/M
Greenhouse Gas Emissions				
GHG Emissions during Project Construction	LTS/M	NI	LTS/M	LTS/M
GHG Emissions during Project Operation and Conflicts with Applicable GHG Emission Plans, Policies, and Regulations	LTS/M	NI	LTS/M	LTS/M
Noise				
Generate Substantial or Permanent Increase in Ambient Noise Levels	LTS/M	NI	LTS/M	LTS/M
Cumulative Impacts	LTS/M	NI	LTS/M	LTS/M

Environmental Issue	Proposed Project	No Project Alternative	Reduced Project Alternative	R&D Use Alternative
Population and Housing				
Indirect Population Growth	LTS	NI	LTS	LTS
Cumulative Impacts	LTS	NI	LTS	LTS
Utilities and Service Systems				
Impacts on Water and Wastewater Treatment Facilities	LTS	NI	LTS	LTS
Water Supply	LTS	NI	LTS	LTS
Wastewater Generation	LTS	NI	LTS	LTS
Cumulative Impacts	LTS	NI	LTS	LTS
Cultural Resources and Tribal Cultural Resources				
Archaeological Resources	LTS/M	NI	LTS/M	LTS/M
Human Remains	LTS/M	NI	LTS/M	LTS/M
Tribal Cultural Resources	LTS/M	NI	LTS/M	LTS/M
Cumulative Impacts	LTS/M	NI	LTS/M	LTS/M
Biological Resources				
Special Status Species	LTS/M	NI	LTS/M	LTS/M
Wildlife Movement and Native Wildlife Nursery Sites	LTS/M	NI	LTS/M	LTS/M
Cumulative Impacts	LTS/M	NI	LTS/M	LTS/M

NI = No Impact; LTS = Less-than-Significant; PS = Potentially Significant; SU = Significant Unavoidable

5.8 Environmentally Superior Alternative

Section 21002 of the CEQA Guidelines requires lead agencies to adopt feasible mitigation measures or feasible environmentally superior alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible. CEQA also requires that an environmentally superior alternative be identified among the alternatives analyzed. In general, the environmentally superior alternative is the project that avoids or substantially lessens some or all of the significant and unavoidable impacts of a proposed project (CEQA Guidelines Section 15126.6).

On the basis of comparing the extent to which the alternatives reduce or avoid the potentially significant impacts of the Proposed Project, the No-Project Alternative would be the environmentally superior alternative. Because no development would occur at the Project site, there would be no construction or operational impacts. However, per Section 15126.6(e)(2), the No-Project Alternative cannot be selected as the environmentally superior alternative.

The R&D Use Alternative would result in the same building area and open space as the Proposed Project, a reduction in parking garage area, and a reduction in the number of net new employees and associated vehicle trips. Because the building footprint would be the same, all footprint-based impacts and construction impacts related to the new building would be the same as the Proposed Project but certain operational impacts would be reduced due to the reduction in the number of employees on site. The Reduced Project Alternative would reduce the size of the building. The Reduced Project Alternative would,

therefore, also reduce the size of footprint-based impacts, as well as construction impacts due to the potential for a reduced construction schedule due to the reduced size of the building. In addition, the Reduced Project Alternative would reduce certain operational impacts because of the reduction in the number of employees on site.

As summarized in Table 5-6, neither the R&D Use Alternative nor the Reduced Project Alternative would change any of the impact conclusions (e.g., less than significant, less than significant with mitigation, etc.) of the Proposed Project. However, the severity of certain impacts would be reduced by both Alternatives. Compared to the Proposed Project, the Reduced Project Alternative would have slightly less severe impacts during construction for the following resources: air quality, greenhouse gas emissions, noise, cultural resources and tribal cultural resources, and biological resource. In contrast, the R&D Use Alternative would have the same impacts as the Proposed Project because the footprint would be the same as the Proposed Project. During operation, both the R&D Use Alternative and the Reduced Project Alternative would have less transportation, air quality, and greenhouse gas emission impacts than the Proposed Project due to the reduction in the number of employees on site. Because the R&D Use Alternative would have a greater reduction in the number of employees than the Reduced Project Alternative, the R&D Use Alternative is expected to result in less operational impacts than the Reduced Project Alternative. Considering the detail above, while the Reduced Project Alternative would reduce both construction and operational impacts, the R&D Use Alternative is considered the environmentally superior alternative. As noted, the R&D Use Alternative would have less operational impacts than the Reduced Project Alternative, and even though the Reduced Project Alternative would also have less severe construction related impacts, the operational period of the R&D Use Alternative of approximately 50 years is much longer than the relatively short construction period of 39 months. Accordingly, the added environmental benefit of the R&D Use Alternative versus the Reduced Project Alternative over the 50-year period more than compensates for the slight environmental benefit the Reduced Project Alternative provides for the comparatively shorter construction period.

Chapter 6
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Chapter 7
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Executive Summary

None

Chapter 1, Introduction

None

Chapter 2, Project Description

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