

VOLUME I

**2 DAVIS DRIVE PROJECT
ENVIRONMENTAL IMPACT REPORT**

STATE CLEARINGHOUSE NO. 2021050181

BELMONT, CALIFORNIA



LSA

August 2023

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DATE: August 22, 2023

TO: State Clearinghouse
Affected Agencies
Property Owners within 300 feet of Affected Property
Interested Organizations and Persons

FROM: City of Belmont

SUBJECT: **2 Davis Drive Project**
Notice of Availability of a Draft Environmental Impact Report

LEAD AGENCY: City of Belmont
Contact: Damon DiDonato, Principal Planner
Planning and Zoning Department
One Twin Pines Lane, Suite 310
Belmont, CA 94002
Phone: 650-637-2908
Email: ddidonato@belmont.gov

PROJECT SPONSOR: 2 Davis Court, LLC
311 9th Avenue
San Mateo, CA 94401

Notice is hereby given that the City of Belmont, as the Lead Agency under the California Environmental Quality Act (CEQA), has prepared a Draft Environmental Impact Report (DEIR) for the proposed 2 Davis Drive Project (proposed project).

In accordance with Section 15087 of the CEQA Guidelines, the City has prepared this Notice of Availability (NOA) to invite agencies, organizations, and interested parties to provide comments on the DEIR. The public review period for the DEIR begins August 23, 2023, and ends October 5, 2023. Due to the time limits mandated by State law, the City must receive all written comments regarding the adequacy of the DEIR within this time period. Please provide written comments to the Lead Agency contact identified above by **5:00 p.m. on October 5, 2023**, with "2 Davis Drive Project EIR" as the subject. Public agencies that provide comments are asked to include a contact person for the agency.

Copies of the DEIR are available for review Monday through Friday, between the hours of 8:00 a.m. and 5:00 p.m., at the Planning and Zoning Department, One Twin Pines Lane, Belmont, except on specified

holidays. The DEIR is also available at the Belmont Public Library, 1110 Alameda de Las Pulgas, Belmont or online at: <https://www.belmont.gov/Home/Components/FacilityDirectory/FacilityDirectory/401/642>

PROJECT LOCATION: The project site is located at 2 Davis Drive within the City of Belmont, San Mateo County. Regional vehicular access to the project site is provided by Interstate 280 (I-280) and State Route 92 (SR 92) via the Ralston Avenue on- and off-ramps located approximately 1.3 miles to the west. Ralston Avenue and Davis Drive, which border the site immediately to the north and east, respectively, provide direct local access to the project site. Figure 1 depicts the regional and local context of the project site.

PROJECT SETTING: The approximately 3.24-acre rectangular project site is bordered to the north by Ralston Avenue, to the east by Davis Drive, to the south by the middle school campus of the Crystal Springs Upland School, and to the west by Ralston Middle School.

The site is currently developed with a single-story, approximately 21,500-square-foot warehouse building and a surface parking lot located along the southern property line. The remainder of the site consists of a flat, undeveloped grassy area west of the existing building, the hillside along the western boundary, vegetation along Ralston Avenue, and retaining walls and berms in the northeast corner. The existing building on the project site was constructed in 1962 and is currently occupied by a commercial tenant. A total of 43 parking spaces are provided in the surface parking lot along the southern border. Of the total 23 existing trees on the site, 20 are classified as protected trees pursuant to Section 25-2 of the Belmont City Code.

The project site is designated Office Commercial (COM-O) on the City of Belmont General Plan Land Use Designations Map and is within the Executive Office and Warehouse (E2.2) zoning district.

PROJECT DESCRIPTION: The proposed project would result in the demolition of the existing warehouse building and surface parking lot and redevelopment of the project site with an approximately 77,525-gross-square-foot, four-story (58-foot-tall) office/research and development (R&D) building with three levels of office space above one level of enclosed at-grade parking, as well as associated open space, circulation and parking, and infrastructure improvements. The project would also include dedication of approximately 14,050 square feet of the southeast corner of the site for future development of a new fire station to replace the existing San Mateo Consolidated Fire Department Station 15, which is currently located at 2701 Cipriani Boulevard, approximately 0.3 miles east of the project site. An approximately 1,226-square-foot portion of the northeast corner of the site would be dedicated to the City to allow for the construction of a new right-turn lane at the Ralston Avenue and Davis Drive intersection.

Of the existing 23 trees on the project site, 7 would be removed, including 4 protected trees. Approximately 56 new trees would be planted on the project site, including approximately 14 new Coast live oak along Ralston Avenue.

The proposed conceptual site plan is shown in Figure 2.

PROJECT ENTITLEMENTS AND APPROVALS: Discretionary actions by the City that would be necessary for development of the proposed project include environmental review, a Rezone, a Planned Development Permit, a Tentative Map approval, a Conditional Use Permit, a Detailed Development Plan approval, Design Review, a Grading Plan approval, a Tree Removal Permit, and a Transportation Demand Management (TDM) Plan approval.

INTRODUCTION TO EIR: An Initial Study for the project, which is also available for review online as an appendix to the DEIR, was prepared to evaluate the potential environmental impacts of the proposed project and determine the appropriate level of environmental review. The Initial Study for the proposed project identified (1) no impacts, (2) less than significant impacts, or (3) less than significant impacts with implementation of standard construction-period mitigation measures related to the following environmental issues:

- Aesthetics
- Agriculture and Forestry Resources
- Cultural Resources (Archaeological Resources and Human Remains)
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Based on the findings of the Initial Study, a DEIR was prepared to address potential physical environmental effects of the proposed project for the following topics: Land Use and Planning, Biological Resources, Cultural Resources, Transportation, Air Quality, Greenhouse Gas Emissions, and Noise.

SIGNIFICANT ANTICIPATED ENVIRONMENTAL EFFECTS: Impacts in the following areas would be potentially significant without the implementation of mitigation measures, but would be reduced to a less than significant level if the mitigation measures recommended in the DEIR are implemented:

- Biological Resources (special-status species; nesting birds)
- Air Quality (increase in criteria pollutants; exposure of sensitive receptors)
- Noise (interior exposure to construction noise)

The proposed project would result in significant and unavoidable impacts related to historic resources, transportation, and greenhouse gas emissions (GHGs):

- **Historic Resources:** Development of the proposed project would result in demolition of the existing building on the project site, which would result in a substantial adverse change on a historical resource, as defined in CEQA Guidelines Section 15064.5. Mitigation Measures CUL-1a, CUL-1b, and CUL-1c would minimize this significant impact; however, the impact would remain significant and unavoidable even after mitigations are implemented as there are no established measures that could adequately replace the loss of a historic building.
- **Transportation:** The proposed project's vehicle miles traveled (VMT) per employee of 19.70 is approximately 34 percent above the threshold of 14.63 VMT per employee. The estimated VMT accounts for implementation of the proposed project's TDM program, which results in the maximum VMT reduction possible. There are no feasible or realistic mitigation measures currently available that would reduce this impact to a less-than-significant level, and therefore this impact would be significant and unavoidable.

- **Greenhouse Gas Emissions:** The proposed project would be consistent with the Bay Area Air Quality Management District's (BAAQMD) project design elements related to natural gas, energy, and electric vehicles with implementation of Mitigation Measure GHG-1. However, as described above, the proposed project would result in a significant and unavoidable VMT impact and therefore would not be consistent with BAAQMD's GHG thresholds regarding VMT. Therefore, the proposed project would result in a significant and unavoidable impact related to GHG emissions.

HAZARDS MATERIALS AND HAZARDOUS WASTE SITES: The project site is not located on any list of hazardous materials waste sites compiled pursuant to Section 65962.5 of the Government Code.

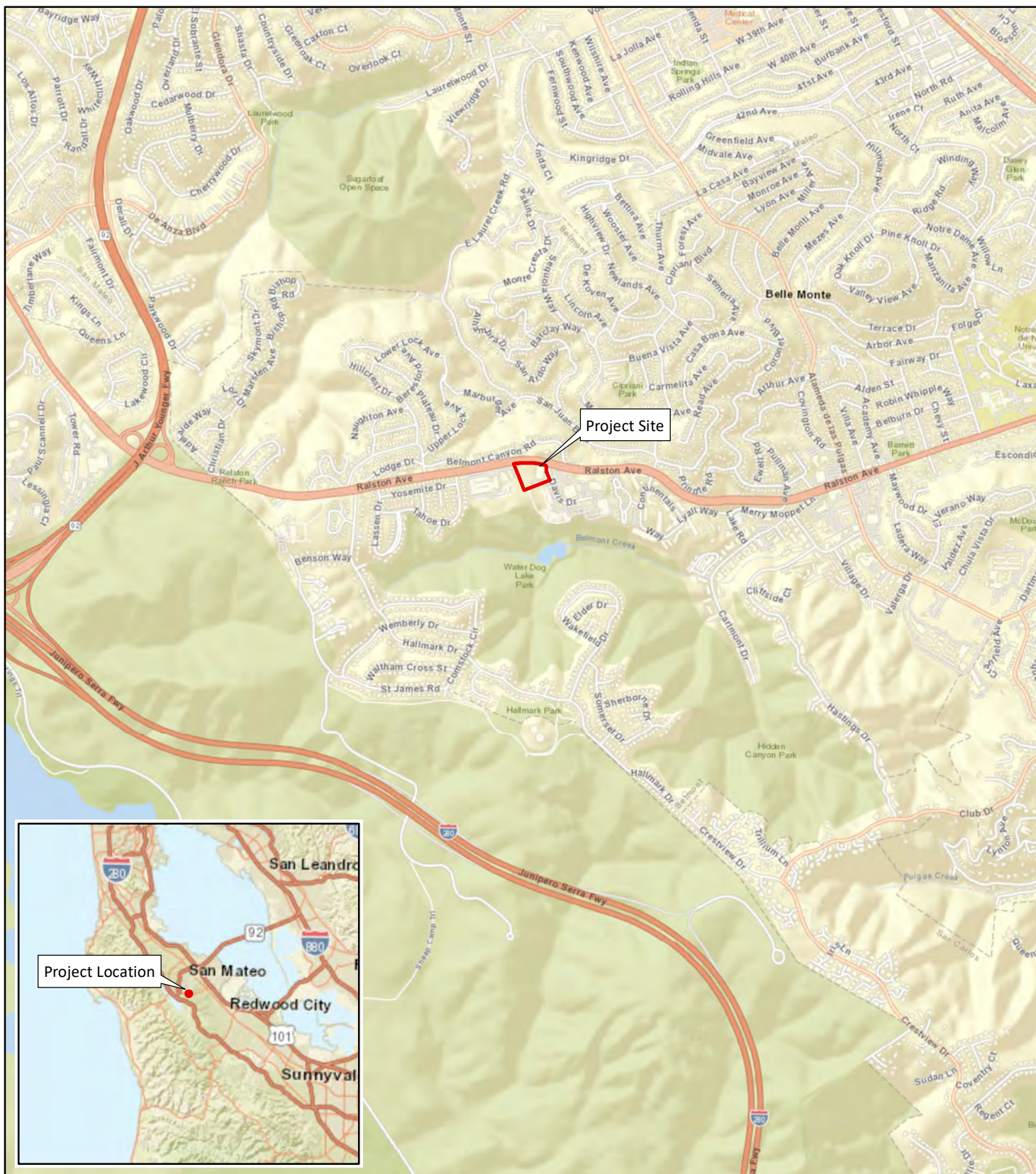
EIR PROCESS: In accordance with CEQA Guidelines Section 15105(a), the DEIR will be available for public review and comment for a 45-day review period. Following the close of the public review period on October 5, 2023, the City will prepare a Final EIR, which will include responses to all substantive comments received on the DEIR. The DEIR and Final EIR will be considered by the Planning Commission and the City Council in making the decision to certify the EIR and final actions on the project.

Damon DiDonato

Signature

August 22, 2023

Date



LSA

LEGEND

Project Site



0 1000 2000
FEET

SOURCE: ESRI World Street Map.

I:\BEL1901\GIS\Maps\Figure 3-1_Project Vicinity Map.mxd (6/8/2020)

FIGURE 1

2 Davis Drive Project NOA
Project Vicinity Map

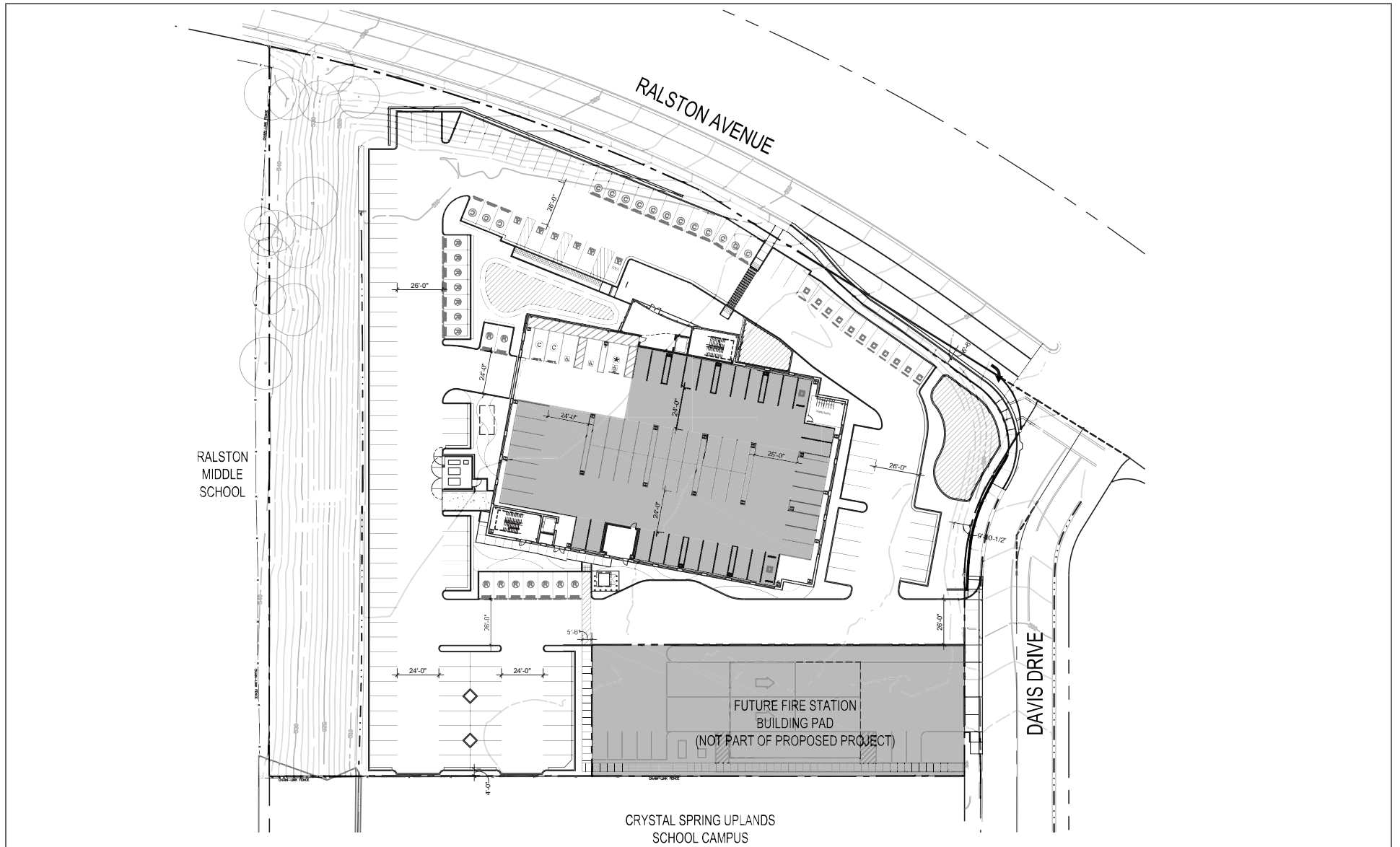
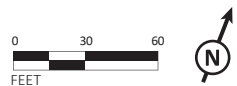


FIGURE 2

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SOURCE: DES ARCHITECTS & ENGINEERS, MARCH 2020.

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2 Davis Drive Project NOA
Conceptual Site Plan

VOLUME I

**2 DAVIS DRIVE PROJECT
ENVIRONMENTAL IMPACT REPORT**

STATE CLEARINGHOUSE NO. 2021050181

BELMONT, CALIFORNIA

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August 2023

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LIST OF ABBREVIATIONS AND ACRONYMS

°C	Celsius
°F	Fahrenheit
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC	air conditioning
ACMs	asbestos-containing materials
ADA	Americans with Disabilities Act
APS	Alternative Planning Strategy
dba	A-weighted decibel(s)
BAAQMD	Bay Area Air Quality Management District
BAU	business-as-usual
Bay	San Francisco Bay
BMPs	Best Management Practices
CAAQS	California ambient air quality standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
California Register	California Register of Historical Resources
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CBIA	California Building Industry Association
C/CAG	City/County Association of Governments of San Mateo County
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission

CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	methane
City	City of Belmont
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
COM-O	Office Commercial
Corps	United States Army Corps of Engineers
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibel(s)
dBA	A-weighted decibel(s)
DOC	California Department of Conservation
DOT	United States Department of Transportation
E2.2	Executive Office and Warehouse
EIR	Environmental Impact Report
EO	Executive Order
ESA	(federal) Endangered Species Act
EV	electric vehicle
FAR	floor area ratio
FHWA	Federal Highway Administration
GHG	greenhouse gas
GWP	Global Warming Potential
HFCs	hydrofluorocarbons
HRA	Health Risk Assessment

HRE	Historical Resources Evaluation
HVAC	heating, ventilation, and air conditioning
Hz	frequency
I-280	Interstate 280
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
ITE	Institute of Transportation Engineers
Pb	lead
LEED	Leadership in Energy and Environmental Design
L ₀₁ , L ₁₀ , L ₅₀ , L ₉₀	A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period
L _{dn}	day/night noise level
L _{eq}	equivalent continuous noise level
L _{max}	maximum A-weighted sound levels
L _{min}	minimum A-weighted sound levels
LOS	levels of service
LTS	less than significant impact
LTS/M	less than significant with mitigation
MBTA	Migratory Bird Treaty Act
MMT	million metric tons
MMT CO ₂ e	million metric tons of carbon dioxide equivalent
mph	miles per hour
MPOs	Metropolitan Planning Organizations
MRP	Municipal Regional Permit
MTC	Metropolitan Transportation Commission
MT CO ₂ e	metric tons of carbon dioxide equivalent
MT CO ₂ e/Year	metric tons of carbon dioxide equivalent per year
National Register	National Register of Historic Places
N ₂ O	nitrous oxide
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides

NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NWIC	Northwest Information Center
O ₃	ozone
OHP	California Office of Historic Preservation
OPR	Governor's Office of Planning and Research
PASS	Program for Arterial System Synchronization
PD	Planned Development
PFCs	perfluorocarbons
PM _{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
PM ₁₀	particulate matter less than 10 microns in aerodynamic diameter
PPV	peak particle velocity
project sponsor	2 Davis Drive, LLC
proposed project	2 Davis Drive Project
R&D	research and development
RCS	Ralston Corridor Study
rms	root mean square
ROG	reactive organic gases
RPS	Renewable Portfolio Standard
RRFB	rectangular rapid flashing beacon
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
S	significant impact
SamTrans	San Mateo County Transit District
SB	Senate Bill
SCS	Sustainable Community Strategies
sf	square foot/feet
SF ₆	sulfur hexafluoride
SHPO	State Historic Preservation Officers
SMCFD	San Mateo Consolidated Fire Department

SO ₂	sulfur dioxide
SOV	single-occupancy vehicle
SR 82	State Route 82
SR 92	State Route 92
SRA	State Responsibility Area
SU	significant and unavoidable impact
SWPPP	Stormwater Pollution Prevention Plan
TACs	toxic air contaminants
TDM	Transportation Demand Management
TIA	Transportation Impact Analysis
UNFCCC	United Nations Framework Convention on Climate Change
US 101	U.S. Highway 101
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
v/c	volume-to-capacity
VdB	vibration levels from noise levels
VMT	vehicle miles traveled
WHO	World Health Organization

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1.0 INTRODUCTION

1.1 PURPOSE OF THIS EIR

In compliance with the California Environmental Quality Act (CEQA), this Environmental Impact Report (EIR) describes the potential environmental impacts of the 2 Davis Drive Project (proposed project) submitted by 2 Davis Court, LLC (the project sponsor). The City of Belmont (City) is the CEQA Lead Agency for environmental review.

The purpose of this EIR is to inform City decision-makers, responsible agencies, and the general public about the proposed project and the potential physical environmental consequences of project implementation. This EIR also examines alternatives to the proposed project and recommends mitigation measures to reduce or avoid potentially significant physical environmental impacts, to the extent feasible. This EIR will be used as an informational document by the City's Planning Commission and/or City Council, responsible agencies, and the public in their review of the proposed project and associated approvals described below and in more detail in Chapter 3.0, Project Description, of this EIR.

1.2 PROPOSED PROJECT

The 3.24-acre project site is located at 2 Davis Drive in the eastern portion of the City of Belmont, San Mateo County. The project site is bordered to the north by Ralston Avenue, to the east by Davis Drive, to the south by the Crystal Springs Uplands School, and to the west by Ralston Middle School. The project site, which varies in elevation from approximately 493 to 540 feet above mean sea level, is currently developed with a single-story, approximately 21,500-square-foot warehouse building and a surface parking lot located along the southern property line. The proposed project would result in the redevelopment of the project site with an approximately 77,525-gross-square-foot, four-story office/research and development (R&D) building, including a ground-level parking podium as well as associated open space, circulation and loading, and infrastructure improvements. The proposed project would also include the alteration of Ralston Avenue in the eastbound direction to include a right-turn lane at the Davis Drive intersection.

The proposed project would also include the dedication of approximately 14,050 square feet of the southeast corner of the site for future development of a new fire station to replace the existing San Mateo Consolidated Fire Department Station 15. Construction of the fire station would occur independently of the proposed project; however, its construction and operation is considered as part of the proposed project evaluated in this EIR.

Discretionary actions by the City that would be necessary for development of the proposed project include environmental review, a Rezone, a Planned Development Permit, a Tentative Map approval, a Conditional Use Permit, a Detailed Development Plan approval, Design Review, a Grading Plan approval, a Tree Removal Permit, and a Transportation Demand Management (TDM) Plan approval.

1.3 EIR SCOPE

The City circulated a Notice of Preparation (NOP) informing responsible agencies and interested parties that an EIR would be prepared for the proposed project and indicated the environmental topics anticipated to be addressed in the EIR. An Initial Study circulated with the NOP. The NOP was published on May 10, 2021, and was mailed to public agencies, organizations, property owners within 300 feet of the site, and individuals likely to be interested in the potential impacts of the proposed project. Seven written comments on the NOP were received by the City. Comments generally expressed concerns related to the topics of aesthetics and views, noise, traffic, biological resources, public services, and tribal cultural resources. These topics were considered during preparation of this EIR. Copies of the NOP and comment letters are included in Appendix A of this EIR.

Based on the preliminary analysis provided in the Initial Study (Appendix B), consultation with City staff, and review of the comments received during the scoping process, the following environmental topics are addressed in Chapter 4.0, Setting, Impacts, and Mitigation Measures, of this EIR:

- 4.1 Land Use and Planning
- 4.2 Biological Resources
- 4.3 Cultural (Historic) Resources
- 4.4 Transportation
- 4.5 Air Quality
- 4.6 Greenhouse Gas Emissions
- 4.7 Noise

It has been determined that the following potential environmental effects of the proposed project would be less than significant or have no impact, and therefore, these topics are “scoped out” and not further studied in detail in this EIR: aesthetics, agriculture and forestry resources, cultural resources (archaeological and human remains), energy, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, population and housing, public services, recreation, tribal cultural resources, utilities and service systems, and wildfire. The topics of cultural resources (archaeological and human remains) and geology and soils would be reduced to a less-than-significant level with implementation of standard construction-period mitigation measures. Each of these topic areas is addressed in the Initial Study (Appendix B). Chapter 6.0, Other CEQA Considerations, of this EIR, provides a summary of the analysis and conclusions for each environmental topic evaluated in the Initial Study and not further addressed in Chapter 4.0.

1.4 REPORT ORGANIZATION

This EIR is organized into the following chapters:

- **Chapter 1.0 —Introduction:** Discusses the overall EIR purpose, provides a summary of the proposed project, describes the EIR scope, and summarizes the organization of the EIR.
- **Chapter 2.0—Summary:** Provides a summary of the impacts that would result from implementation of the proposed project, describes mitigation measures recommended to reduce or

avoid potentially significant environmental impacts, and describes the alternatives to the proposed project.

- **Chapter 3.0—Project Description:** Provides a description of the project site, project objectives, proposed project, and uses of this EIR.
- **Chapter 4.0—Setting, Impacts, and Mitigation Measures:** Describes the following for each technical environmental topic: existing conditions (setting), potential environmental impacts of the proposed project and their level of significance, and 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: significant impact (S), less than significant impact (LTS), and significant and unavoidable impact (SU). The significance of each potential impact is categorized before and after implementation of any recommended mitigation measure(s).
- **Chapter 5.0—Alternatives:** Provides an evaluation of three alternatives to the proposed project in addition to the CEQA-required No Project Alternative.
- **Chapter 6.0—Other CEQA Considerations:** Provides an analysis of effects found not to be significant, including the Initial Study findings, growth-inducing impacts, unavoidable significant environmental impacts, and significant irreversible changes.
- **Chapter 7.0—Report Preparation:** Identifies preparers of the EIR and the references cited.
- **Appendices:** The appendices contain the NOP and comment letters (Appendix A); the Initial Study (Appendix B); the Biological Resources Report (Appendix C); the Tree Survey Report (Appendix D); the Historic Evaluation (Appendix E); the Transportation Impact Analysis (Appendix F); the Air Quality and Greenhouse Gas Emissions Data (Appendix G); the Health Risk Assessment (Appendix H); and the Noise Data (Appendix I). All appendices are available online at: <https://www.belmont.gov/Home/Components/FacilityDirectory/FacilityDirectory/401/642>.

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2.0 SUMMARY

This chapter provides an overview of the proposed project and findings identified in this Environmental Impact Report (EIR), prepared pursuant to the California Environmental Quality Act (CEQA), including a discussion of alternatives and cumulative project impacts.

2.1 PROJECT UNDER REVIEW

This EIR has been prepared to evaluate the potential environmental consequences of implementation (i.e., construction and operation) of the proposed 2 Davis Drive Project (project) submitted by 2 Davis Drive, LLC (the project sponsor). The approximately 3.24-acre project site is at 2 Davis Drive in Belmont, San Mateo County. The project site is bounded by Ralston Avenue to the north, Davis Drive to the east, the middle school campus of the Crystal Springs Uplands Middle School to the south, and Ralston Middle School to the west. The project site is developed with a single-story, approximately 21,500-square-foot warehouse building and a surface parking lot located along the southern property line. Vegetation on the project site consists of a large grassy area west of the existing building, a vegetated hillside, and a vegetated area along Ralston Avenue, which all together contain 23 mature trees.

The proposed project would result in the redevelopment of the project site with a 77,525-gross-square-foot, four-story office/research and development (R&D) building with three levels of office space above one level of enclosed at-grade parking, as well as associated landscaping, circulation and parking, and infrastructure improvements. The proposed building would be a maximum of 58 feet in height to the roof line, and would extend to approximately 72 feet with inclusion of the roof screen. The proposed project would also include dedication of approximately 14,050 square feet of the southeast corner of the site for future development of a new fire station. The northeast corner of the site would be dedicated to the City of Belmont (City) to allow for the construction of a new right-turn lane at the Ralston Avenue and Davis Drive intersection.

As noted above, the ground floor of the proposed building would be an enclosed garage. The second through fourth levels of the proposed building would provide approximately 64,059 square feet of occupiable space, consisting of either office or R&D uses. It is anticipated that 310 employees would be accommodated on the project site.

The ground level of the proposed building would include a garage that would contain approximately 62 striped parking spaces that would be accessed from a driveway at the northwest corner of the proposed building. Additionally, valet parking within the garage would be provided, which would allow for an additional 37 parking spaces, for a total of 99 spaces. An additional 153 surface parking spaces would be provided surrounding the proposed building. Similar to the parking garage, valet parking would result in an additional 16 spaces, resulting in a total of 169 parking spaces. In total, the proposed project would provide 268 parking spaces. A total of 16 bicycle spaces would be provided in a long-term storage room in the parking garage and 2 short-term spaces would be provided outside of the main lobby.

A total of approximately 39,000 square feet of landscaping would be provided surrounding the proposed building and along Ralston Avenue and Davis Drive. Additionally, the proposed building would also include a rooftop terrace that would be approximately 3,400 square feet in size. Of the 23 trees on the project site, 7 would be removed, including 4 protected trees. Approximately 56 new trees would be planted on the project site, including approximately 14 new Coast live oak (*quercus agrifolia*) along Ralston Avenue.

Discretionary actions by the City necessary for development of the proposed project include environmental review, rezoning, a Planned Development Permit, a Tentative Map, a Conditional Use Permit, a Detailed Development Plan, Design Review, a Grading Plan, a Tree Removal Permit, and approval of a Transportation Demand Management (TDM) Plan. Refer to Chapter 3.0, Project Description, of this EIR, for a complete description of the project's location, context, and objectives, details of the proposed project itself, and a summary of required approvals and entitlements.

2.2 POTENTIAL AREAS OF CONTROVERSY

A total of seven commenters submitted written responses to the Notice of Preparation (NOP). The NOP and comments received are included in Appendix A of this EIR. Comments in response to the NOP generally identified the following areas of potential concern:

- Impact of the proposed project on views from surrounding private residences, especially related to the height of the building and lighting on the project site
- Increased urban noise, including sirens from a potential new fire station
- Increased traffic along Ralston Avenue and related effects of adding additional commuters, such as increased greenhouse gas emissions, noise pollution, water usage, and emergency evacuations
- Impacts on wildlife in the Waterdog Lake & Open Space from increased noise and light
- Impacts related to a potential new fire station
- Removal of heritage oak trees
- The application of Assembly Bill 52 and compliance with tribal consultation requirements

In addition, comments in response to the NOP requested analysis of an alternative to the proposed project that would include a two-story building instead of a four-story building.

As described in Section 3.0, Project Description, although the new fire station would not be constructed as part of the proposed project, the construction and operation has been included and analyzed throughout this EIR. Comments related to aesthetics (i.e., views and lighting) were considered and addressed in Section 3.1, Aesthetics, of the Initial Study (provided in Appendix B of this EIR). Comments related to noise were considered and addressed in Section 4.7, Noise, of this EIR. Comments related to traffic, transportation, and circulation were considered and addressed in Section 4.4, Transportation, of this EIR. Comments related to wildlife and oak trees were considered and addressed in Section 4.2, Biological Resources, of this EIR. Comments related to Assembly Bill 52 are addressed in Section 3.18, Tribal Cultural Resources, of the Initial Study (Appendix B).

2.3 SUMMARY OF IMPACTS AND MITIGATION MEASURES

This summary provides an overview of the analysis contained in the Initial Study (Appendix B) and Chapter 4.0, Setting, Impacts, and Mitigation Measures, of this EIR.

2.3.1 Findings of the Initial Study

The Initial Study for the proposed project (included in Appendix B to this EIR) identified (1) no impacts, (2) less than significant impacts, or (3) less than significant impacts with implementation of standard construction-period mitigation measures related to the following environmental issues:

- Aesthetics
- Agriculture and Forestry Resources
- Cultural Resources (Archaeological Resources and Human Remains)
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

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 B). Chapter 6.0, Other CEQA Considerations, of this EIR, also includes a summary of the findings for each topic not discussed in the EIR.

The Initial Study identified topic areas that require further study and potential impacts requiring more detailed evaluation related to the following environmental issues, which are further evaluated in Chapter 4.0 of this EIR:

- Land Use and Planning
- Biological Resources
- Cultural Resources (Historic Resources)
- Transportation
- Air Quality
- Greenhouse Gas Emissions
- Noise

2.3.2 Significant Impacts

CEQA defines a significant impact on the environment 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 Chapter 4.0 of this EIR, impacts in the following areas would be potentially significant without the implementation of mitigation measures, but would be reduced to a less than significant level if the mitigation measures recommended in the EIR are implemented:

- Biological Resources (special-status species; nesting birds)
- Air Quality (increase in criteria pollutants; exposure of sensitive receptors)
- Noise (interior exposure to construction noise)

Impacts related to land use and planning would be less than significant, and no mitigation measures would be required.

2.3.3 Significant Unavoidable Impacts

The proposed project would result in significant and unavoidable impacts related to historic resources, transportation, and greenhouse gas emissions (GHGs), as further discussed below.

2.3.3.1 Historic Resources

Development of the proposed project would result in demolition of the existing building on the project site, which would result in a substantial adverse change on a historical resource, as defined in CEQA Guidelines Section 15064.5. Mitigation Measures CUL-1a, CUL-1b, and CUL-1c would minimize this significant impact; however, the impact would remain significant and unavoidable even after mitigations are implemented as there are no established measures that could adequately replace the loss of a historic building.

2.3.3.2 Transportation

The proposed project's vehicle miles traveled (VMT) per employee of 19.70 is approximately 34 percent above the threshold of 14.63 VMT per employee. The estimated VMT accounts for implementation of the proposed project's TDM program, which results in the maximum VMT reduction possible. There are no feasible or realistic mitigation measures currently available that would reduce this impact to a less-than-significant level, and therefore this impact would be significant and unavoidable.

2.3.3.3 Greenhouse Gas Emissions

The proposed project would be consistent with the Bay Area Air Quality Management District's (BAAQMD) project design elements related to natural gas, energy, and electric vehicles with implementation of Mitigation Measure GHG-1. However, as described above, the proposed project would result in a significant and unavoidable VMT impact and therefore would not be consistent with BAAQMD's GHG thresholds regarding VMT. Therefore, the proposed project would result in a significant and unavoidable impact related to GHG emissions.

2.3.4 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 *State CEQA Guidelines* requires 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 other past, present, or reasonably foreseeable future projects. As described in Chapter 4.0 of this EIR, the cumulative impacts analysis in this EIR is primarily based on regional projections for the project area.

As described above, the proposed project would result in significant and unavoidable transportation and GHG impacts related to VMT. Consistent with the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA, 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." The proposed project would exceed the existing VMT thresholds of significance. Therefore, the proposed project would also have a cumulatively significant impact with respect to VMT. In addition, GHG impacts are, by their nature, cumulative impacts. Therefore, the significant and unavoidable GHG impacts discussed above would also be cumulatively significant.

2.3.5 Alternatives to the Project

In accordance with CEQA and the State *CEQA Guidelines* (Section 15126.6), an EIR must describe a reasonable range of alternatives to the project, or to the project's location, 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 effect cannot be ascertained and whose implementation is remote and speculative."

- **No Project Alternative.** Under the No Project alternative, the project site would continue to be occupied by the existing single-story warehouse building totaling approximately 21,500 square feet with 43 dedicated parking spaces. No modifications to existing site access or infrastructure would occur.
- **Reduced Intensity Alternative.** Under the Reduced Intensity alternative, the project site would be redeveloped with an approximately 53,000-square-foot, three-story office/R&D building with two levels of office space above one level of enclosed at-grade parking, as well as associated landscaping, circulation and parking, and infrastructure improvements. Similar to the proposed project, the Reduced Intensity alternative would also include dedication of land for the relocated San Mateo Consolidated Fire Department Station 15 and realignment of Ralston Avenue.
- **Rooftop Addition Preservation Alternative.** Under the Rooftop Addition Preservation alternative, the existing one-story building would be retained in its current location and one 15-foot-tall vertical floor addition would be constructed, for a total of 35,500 square feet of office/R&D uses. All parking would be provided in surface lots and the site would be developed with landscaping and circulation improvements. Similar to the proposed project, the Reduced Intensity alternative would also include dedication of land for the relocated San Mateo Consolidated Fire Department Station 15 and realignment of Ralston Avenue. However, the fire station site would be reduced to 13,400 square feet in size and located at the far southwest corner of the site.
- **Attached Addition Preservation Alternative.** Under the Attached Addition Preservation alternative, the existing one-story building would be retained in its current location and a two-story (45-foot-tall) addition would be added to the west side of the building, for a total of 45,000

square feet of office/R&D uses. All parking would be provided in surface lots and the site would be developed with landscaping and circulation improvements. Similar to the proposed project, the Reduced Intensity alternative would also include dedication of land for the relocated San Mateo Consolidated Fire Department Station 15 and realignment of Ralston Avenue. However, the fire station site would be reduced to 13,400 square feet in size and located at the far southwest corner of the site.

The Reduced Intensity alternative is identified as the environmentally superior alternative because it would slightly reduce some of the potentially significant impacts of the proposed project through reduced construction and operational building intensities, although none of the significant unavoidable project impacts would be avoided and all project mitigation measures would still be required. The project objectives would also be met, although to a slightly lesser extent than the proposed project.

2.4 SUMMARY TABLES

Information in Table 2.A, Summary of Impacts and Mitigation Measures, from the Initial Study, summarizes the recommended mitigation measures and conditions of approval from the Initial Study. Information in Table 2.B, Summary of Impacts and Mitigation Measures from the EIR, has been organized to correspond with environmental issues discussed in Chapter 4.0. Tables 2.A and 2.B are arranged in four columns: (1) impacts, (2) level of significance without mitigation, (3) mitigation measures, and (4) level of significance with mitigation. Levels of significance are categorized as follows:

LTS	Less Than Significant
S	Significant
SU	Significant Unavoidable

For a complete description of potential impacts and recommended mitigation measures, please refer to the specific topical discussions in both Chapter 4.0 of this EIR and the Initial Study (Appendix B).

Table 2.A: Summary of Impacts and Mitigation Measures from the Initial Study

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
3.1: AESTHETICS			
<i>There are no significant impacts to aesthetics.</i>			
3.2: AGRICULTURE AND FORESTRY RESOURCES			
<i>There are no significant impacts to agriculture and forestry resources.</i>			
3.5: CULTURAL RESOURCES¹			
Development of the proposed project could result in a substantial adverse change to archaeological resources.	S	Mitigation Measure CUL-1: Consistent with General Plan Policies 5.12-1 and 5.12-2, should an archaeological deposit be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology contacted to assess the situation, determine if the deposit qualifies as a historical resource, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If the deposit is found to be significant (i.e., eligible for listing in the California Register of Historical Resources), the project sponsor shall be responsible for funding and implementing appropriate mitigation measures. Mitigation measures may include recordation of the archaeological deposit, data recovery and analysis, and public outreach regarding the scientific and cultural importance of the discovery. Upon completion of the selected mitigations, a report documenting methods and findings shall be prepared and submitted to the City for review, and the final report shall be submitted to the Northwest Information Center at Sonoma State University. Significant archaeological materials shall be submitted to an appropriate curation facility and used for public interpretive displays, as appropriate and in coordination with a local Native American tribal representative. The project sponsor shall inform its contractor(s) of the sensitivity of the project area for archaeological deposits and shall verify that the following directive has been included in the appropriate contract documents: <i>"The subsurface of the construction site may be sensitive for Native American archaeological deposits. If archaeological deposits are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall be redirected and a qualified archaeologist contacted to assess the situation, and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any archaeological materials. Archaeological deposits can include shellfish remains; bones; flakes of, and tools made from, obsidian, chert, and basalt; and mortars and pestles. Contractor acknowledges and understands that excavation or removal of archaeological material is prohibited by law and constitutes a misdemeanor under California Public Resources Code, Section 5097.5."</i>	LTS

Table 2.A: Summary of Impacts and Mitigation Measures from the Initial Study

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
3.6: ENERGY			
<i>There are no significant impacts to energy.</i>			
3.7: GEOLOGY AND SOILS			
Development of the proposed project could result in a substantial adverse change to paleontological resources.	S	Mitigation Measure GEO-1: Consistent with General Plan Policies 5.12-1 and 5.12-2, should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. For purposes of this mitigation, a “qualified paleontologist” shall be an individual with the following qualifications: (1) a graduate degree in paleontology or geology and/or a person with a demonstrated publication record in peer-reviewed paleontological journals; (2) at least two years of professional experience related to paleontology; (3) proficiency in recognizing fossils in the field and determining their significance; (4) expertise in local geology, stratigraphy, and biostratigraphy; and (5) experience collecting vertebrate fossils in the field. If the paleontological resources are found to be significant and project activities cannot avoid them, measures shall be implemented to ensure that the project does not cause a substantial adverse change in the significance of the paleontological resource. Measures may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City for review. If paleontological materials are recovered, this report also shall be submitted to a paleontological repository such as the University of California Museum of Paleontology, along with significant paleontological materials. Public educational outreach may also be appropriate. The project sponsor shall inform its contractor(s) of the sensitivity of the project site for paleontological resources and shall verify that the following directive has been included in the appropriate contract documents: <i>“The subsurface of the construction site may be sensitive for fossils. If fossils are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any paleontological materials. Fossils can include plants and animals, and</i>	LTS

Table 2.A: Summary of Impacts and Mitigation Measures from the Initial Study

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		<i>such trace fossil evidence of past life as tracks or plant imprints. Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa; and vertebrate fossils such as fish, whale, and sea lion bones. Contractor acknowledges and understands that excavation or removal of paleontological material is prohibited by law and constitutes a misdemeanor under California Public Resources Code, Section 5097.5."</i>	
3.9: HAZARDS AND HAZARDOUS MATERIALS			
<i>There are no significant impacts to hazards and hazardous materials.</i>			
3.10: HYDROLOGY AND WATER QUALITY			
<i>There are no significant impacts to hydrology and water quality.</i>			
3.12: MINERAL RESOURCES			
<i>There are no significant impacts to mineral resources.</i>			
3.14: POPULATION AND HOUSING			
<i>There are no significant impacts to population and housing.</i>			
3.15: PUBLIC SERVICES			
<i>There are no significant impacts to public services.</i>			
3.16: RECREATION			
<i>There are no significant impacts to recreation.</i>			
3.18: TRIBAL CULTURAL RESOURCES			
<i>There are no significant impacts to tribal cultural resources.</i>			
3.19: UTILITIES AND SERVICE SYSTEMS			
<i>There are no significant impacts to utilities and service systems.</i>			
3.20: WILDFIRE			
<i>There are no significant impacts to wildfire.</i>			

Source: Compiled by LSA (2023).

Note: Sections 3.3, Air Quality, 3.4 Biological Resources, 3.8, Greenhouse Gas Emissions, 3.11, Land Use and Planning, 3.13, Noise, and 3.17, Transportation, are addressed in the EIR and summarized in Table 2.B.

¹ As noted above, potential impacts related to archaeological resources and human remains are not further addressed in Section 4.3, Cultural Resources, of this EIR.

CDFW = California Department of Fish and Wildlife

S = significant

LTS = less than significant

Table 2.B: Summary of Impacts and Mitigation Measures from the EIR

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.1: LAND USE AND PLANNING			
<i>There are no significant impacts to land use and planning.</i>			
4.2: BIOLOGICAL RESOURCES			
Impact BIO-1: Construction and operation of the proposed project could adversely affect San Francisco dusky-footed woodrats, a California species of special concern.	S	Mitigation Measure BIO-1: The following measures shall be implemented prior to any ground disturbance, vegetation removal (including wildfire fuel load management), or other activities in oak woodland/coyote brush scrub habitat on the project site to minimize impacts to active nests of woodrats. • No more than 15 days prior to disturbance of suitable habitat for the San Francisco dusky-footed woodrat, a pre-activity survey for woodrat nests shall be conducted by a qualified biologist. The survey shall consist of walking through all areas of suitable habitat within the project work area looking for woodrat nests, both on the ground and in vegetation. All woodrat nests detected within the survey area shall be flagged and mapped. • A 5-foot buffer shall be maintained between project activities and each nest to avoid disturbance. A smaller buffer may be allowed if, in the opinion of a qualified biologist, working within 5 feet of the nest would not damage the nest and the biologist monitors the work. • If avoidance of active woodrat nests is not feasible (e.g., nests are the project disturbance area), the woodrats shall be evicted from their nests prior to the removal of the nests and onset of ground-disturbing activities to avoid injury or mortality of the woodrats. The eviction of woodrats and dismantling of woodrat nests shall begin no earlier than one hour before sunset to allow woodrats to escape under cover of dusk and avoid predators. A qualified biologist shall disturb the woodrat nest to the degree that all woodrats leave the nest and seek refuge outside of the project activity area. Subsequently, the nest sticks shall be relocated; these materials shall be gathered onto a tarp and then piled at the base of a nearby tree or shrub in an area that will not be directly impacted by project activities. The spacing between relocated nests and existing nests shall be maximized (at least 20 feet, if feasible) to avoid over-crowding. • If, during dismantling of a woodrat nest, young woodrats are detected, the nest shall be reassembled and left in place. The qualified biologist shall revisit the nest after 3 days to determine whether it is still active, or whether the mother relocated the young to another area. Once the nest is determined to be inactive or the young are large enough to disperse on their own, the nest shall be dismantled and the nest materials relocated. • During operation-period wildfire fuel management, no woodrat nests shall be removed, and removal of vegetation within 5 feet of each nest shall be minimized.	LTS

Table 2.B: Summary of Impacts and Mitigation Measures from the EIR

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
Impact BIO-2: Tree and vegetation removal activities occurring during project construction could result in direct impacts to nesting birds, which are protected by the Migratory Bird Treaty Act and California Fish and Game Code.	S	Mitigation Measure BIO-2: The following measures shall be implemented during the construction period to reduce potential impacts to nesting bird species: • 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. • If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Surveys shall be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist shall inspect all trees and other potential nesting habitats (e.g., trees, shrubs, grasslands, buildings) in and immediately adjacent to the impact areas for nests. • If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist shall determine the extent of a 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 protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. • If construction activities are not initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation, and prevent the potential delay of the project due to the presence of active nests in these substrates.	LTS
4.3: CULTURAL RESOURCES			
Impact CUL-1: Demolition of the existing building on the project site would have a substantial adverse change on a historical resource, as defined in CEQA Guidelines Section 15064.5.	S	Mitigation Measure CUL-1a: Prior to issuance of a demolition permit, the project sponsor shall retain a City-approved historian or architectural historian meeting the Secretary of the Interior's Qualifications Standards (36 CFR Part 61) to prepare a historical context report of the existing building at 2 Davis Drive. The report shall generally follow a Level II or higher documentation standard as described in the National Park Service's Historic American Building Survey (HABS) guidance and shall generally follow the Outline Format as presented in the HABS History Guidelines issued by the National Park Service. The report shall provide a detailed description of the building and its historical significance within the context of International Modernist architecture and the historic context of the City of Belmont. Photographs and scaled architectural drawings of the	SU

Table 2.B: Summary of Impacts and Mitigation Measures from the EIR

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		building, or archival-quality copies of the original building plans, if available, shall accompany the report (as specified in Mitigation Measures CUL-1b and CUL-1c). The report and associated documentation shall be offered to the appropriate historical archives, including, but not limited to, the Belmont Historical Society and the San Mateo County History Museum. Based on the curation requirements of the receiving institution, either archival hard copies and/or electronic copies of the report and associated documentation shall be offered to the Belmont Historical Society, the San Mateo County Historical Association, and the Northwest Information Center at Sonoma State University. The project sponsor shall be responsible for ensuring the report, photo-documentation (CUL-1b), and scaled architectural drawings (CUL-1c) are available to the public via the internet for a minimum of 5 years. Mitigation Measure CUL-1b: The project sponsor shall retain a professional photographer to complete photo-documentation of the existing building at 2 Davis Drive prior to project construction to provide additional descriptive data and a permanent visual record of the resource. The photographer must be familiar with large format architectural photography and have prior demonstrable experience photographing historic buildings and structures. The photo-documentation shall generally follow the National Park Service's Historic American Building Survey/Historic American Engineering Record/Historic American Landscapes Survey (HABS/HAER/HALS) Photography Guidelines. Photograph views for the data set shall include contextual views; views of each side of the building; interior views, including any original interior features, where possible; oblique views of the building; and detail views of character-defining features identified in the Historical Resource Evaluation report prepared for the proposed project. Mitigation Measure CUL-1c: Existing, scaled historic drawings of the existing building at 2 Davis Drive, if available, shall be reproduced on archival-quality paper and included with the report (Mitigation Measure CUL-1a). In the absence of adequate archival drawings, the project sponsor's architect, meeting the Secretary of the Interior's Professional Qualification Standards for Historic Architecture (36 CFR Part 61), shall produce full-size measured drawings of the building's plan and significant exterior elevations.	
4.4: TRANSPORTATION			
Impact TRA-1: The proposed project would exceed applicable VMT thresholds of significance.	S	Mitigation Measure TRA-1: The proposed project shall implement the proposed Transportation Demand Management (TDM) Program throughout the duration of project operations.	SU

Table 2.B: Summary of Impacts and Mitigation Measures from the EIR

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.5: AIR QUALITY			
Impact AIR-1: Construction of the proposed project would generate air pollutant emissions that could violate air quality standards.	S	Mitigation Measure AIR-1: In order to meet the BAAQMD fugitive dust threshold, the following BAAQMD Basic Construction (Best Management Practice) Mitigation Measures shall be implemented: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off site shall be covered. • All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Idling times shall be minimized either 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 Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • A publicly visible sign shall be posted with the telephone number and person to contact at the City of Belmont regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.	LTS
Impact AIR-2: Construction of the proposed project would expose nearby sensitive receptors to toxic air contaminants.	S	Mitigation Measure AIR-2: During construction of the proposed project, the project contractor shall ensure all off-road diesel-powered construction equipment of 50 horsepower or more used for the project construction at a minimum meets the California Air Resources Board's Tier 2 emissions standards equipped with Level 3 diesel particulate filters or the equivalent.	LTS

Table 2.B: Summary of Impacts and Mitigation Measures from the EIR

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.6: GREENHOUSE GAS EMISSIONS			
Impact GHG-1: The proposed project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	S	Mitigation Measure GHG-1: The project sponsor shall provide a minimum of 20 percent of the parking spaces as EV charging stations as part of the final project design, to be consistent with current CALGreen Tier 2 standards. The final design including these revisions shall be incorporated.	LTS
4.7: NOISE			
Impact NOI-1: Noise from construction activities at the project site would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	S	Mitigation Measure NOI-1: To reduce noise impacts due to construction at nearby sensitive receptors to the maximum extent feasible, the project sponsor shall employ the following mitigation measures: • Unless granted an exception by the City's Building Official, all construction and related activities shall occur only during the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. • All gasoline-powered construction equipment shall be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted. • All construction equipment shall be properly maintained in good working order. • Prior to construction activities, a "Construction Noise Coordinator" shall be designated who would be responsible for responding to any local complaints about construction noise. The Construction Noise Coordinator shall determine the cause of the complaint and shall require that reasonable measures warranted to correct the problem be implemented. The telephone number for the Construction Noise Coordinator shall be conspicuously posted at the construction site. • Prior to construction activities, Ralston Middle School and Crystal Springs Uplands Middle School shall be notified of the construction schedule in writing and provided with the contact information of the Construction Noise Coordinator.	LTS

Source: Compiled by LSA (2023).

S = significant

LTS = less than significant

SU = significant unavoidable

3.0 PROJECT DESCRIPTION

This chapter describes the proposed 2 Davis Drive Project (proposed project) submitted by 2 Davis Drive, LLC (project sponsor) and evaluated in this Environmental Impact Report (EIR). A description of the proposed project's location, context, and objectives is followed by details of the proposed project itself and a summary of required approvals and entitlements.

3.1 PROJECT SITE

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

3.1.1 Regional Location and Access

The approximately 3.24-acre rectangular project site is located at 2 Davis Drive within the City of Belmont, San Mateo County. Belmont is located approximately 25 miles south of San Francisco at the southern end of the San Francisco Bay (Bay).

Regional vehicular access to the project site is provided by Interstate 280 (I-280) and State Route 92 (SR 92) via the Ralston Avenue on- and off-ramps located approximately 1.3 mile to the west. Ralston Avenue and Davis Drive, which border the site immediately to the north and east, respectively, provide direct local access to the project site. The Belmont Caltrain station is located approximately 2.5 miles east of the project site, providing weekday service from San Francisco to Gilroy and weekend service from San Francisco to San Jose.

Figure 3-1 depicts the regional and local context of the project site. Figure 3-2 provides an aerial photograph of the project site and surrounding land uses.

3.1.2 Site Characteristics and Current Site Conditions

The project site varies in elevation, ranging from approximately 540 feet above mean sea level along the western boundary to approximately 493 feet above mean sea level at the northeast corner. However, elevation change on the project site is generally limited to the site perimeter, and the majority of the site is generally level, as shown on Figure 3-3. The project site is currently developed with a single-story, approximately 21,500-square-foot warehouse building and a surface parking lot located along the southern property line. The remainder of the site consists of a flat, undeveloped grassy area west of the existing building, the hillside along the western boundary, vegetation along Ralston Avenue, and retaining walls and berms in the northeast corner.

The existing building on the project site was constructed in 1962 and is currently occupied by a commercial tenant. A total of 43 parking spaces are provided in the surface parking lot along the southern border. As noted above, vegetation on the project site consists of a large grassy area west of the existing building, the hillside, and a vegetated area along Ralston Avenue, which all together contain 23 mature trees. Of these 23 trees, 20 are classified as protected trees pursuant to

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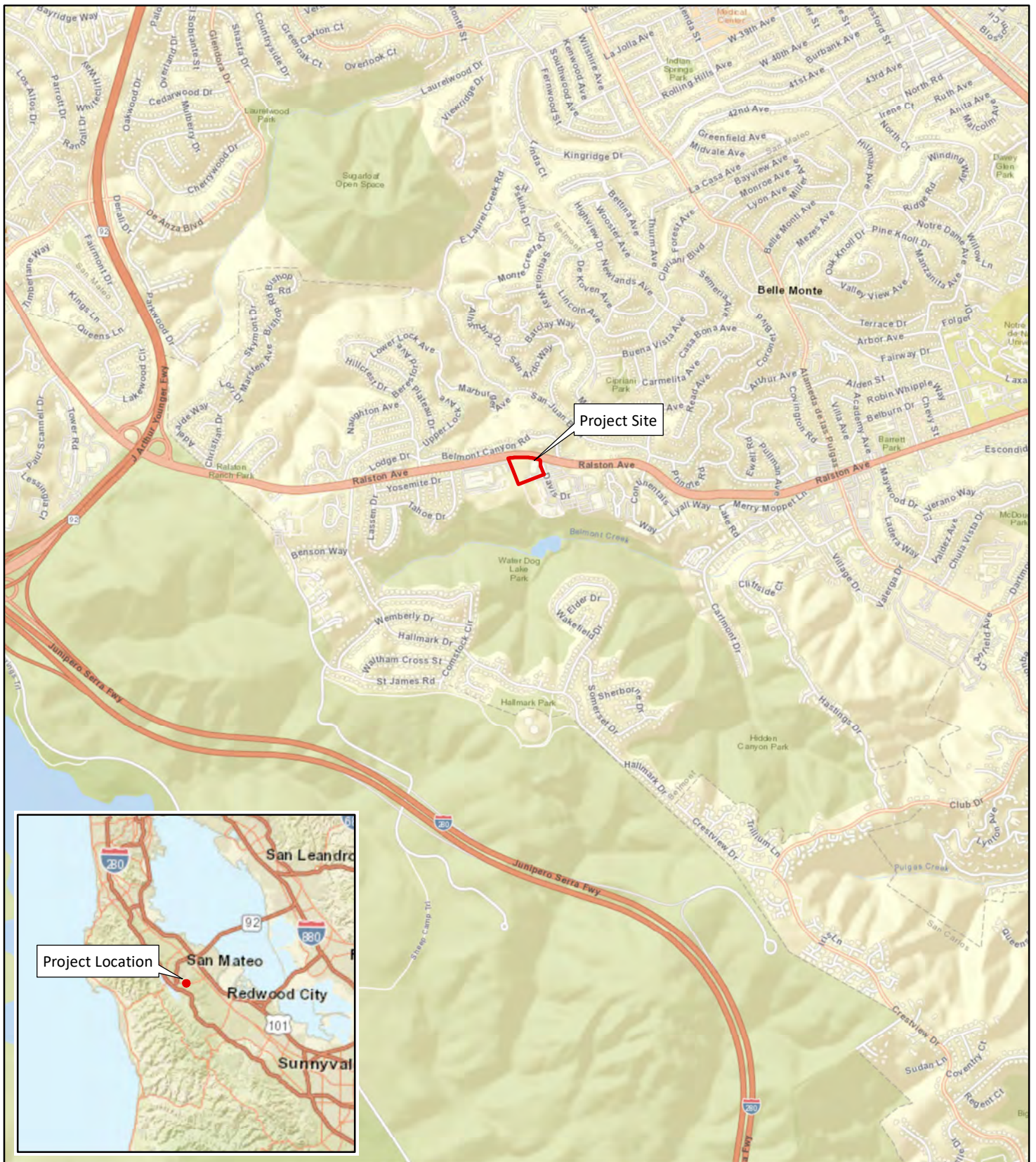


FIGURE 3-1

LSA

LEGEND

Project Site



0 1000 2000
FEET

SOURCE: ESRI World Street Map.

I:\BEL1901\GIS\Maps\Figure 3-1_Project Vicinity Map.mxd (6/8/2020)

2 Davis Drive Project EIR
Project Vicinity Map

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FIGURE 3-2

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FIGURE 3-3

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Section 25-2 of the Belmont City Code.¹ Figure 3-4 depicts an aerial view of the project site and photo viewpoint locations, and Figures 3-5 and 3-6 include photos of the existing conditions at the project site.

3.1.3 Regulatory Setting

The project site is designated Office Commercial (COM-O) on the City of Belmont (City) General Plan Land Use Designations Map. The COM-O designation provides for professional office, executive office; and other office uses. The maximum floor area ratio (FAR) for COM-O is 1.5.²

The project site is located within the Executive Office and Warehouse (E2.2) zoning district. Permitted uses within the E2.2 zoning district include: administrative, executive, and sales offices; financial offices; professional offices; laboratories; and warehousing, storage, and distribution facilities.³

3.1.4 Surrounding Land Uses

The project site is located in the western area of the City. The project site is generally surrounded by a mix of uses, including older buildings and new construction, as depicted on Figure 3-2 and further described below. Figure 3-7 includes photos of surrounding land uses; refer to Figure 3-4 for photo viewpoint locations.

- **North of the Project Site.** The project site is immediately bordered to the north by Ralston Avenue, which is an arterial roadway that runs east-west through the City and provides access to SR 92 and I-280 to the west and State Route 82 (SR 82) and U.S. Highway 101 (US 101) to the east. Uses across Ralston Avenue are primarily residential, with institutional uses also present.
- **East of the Project Site.** The project site is bordered immediately to the east by Davis Drive, which provides access to the project site. Across Davis Drive is the San Mateo County Human Services Agency (Figure 3-7, Photo 5), and further east are additional office buildings and single- and multi-family residential uses. The existing San Mateo Consolidated Fire Department Station 15 is located approximately 0.3 mile east of the project site.
- **South of the Project Site.** The project site is bordered to the south by the middle school campus of the Crystal Springs Upland Middle School (Figure 3-7, Photo 6), a private school serving grades 6 through 12. Further south are the Waterdog Lake & Open Space, a City-owned and operated park, and single-family residential uses.

¹ Arbor Resources. 2018. *Tree Survey Report, 2 Davis Drive, Belmont, CA 94002*. August 6.

² Belmont, City of. 2017a. *City of Belmont 2035 General Plan*. November 14.

³ Belmont, City of. 2018. *City of Belmont Zoning Ordinance*.

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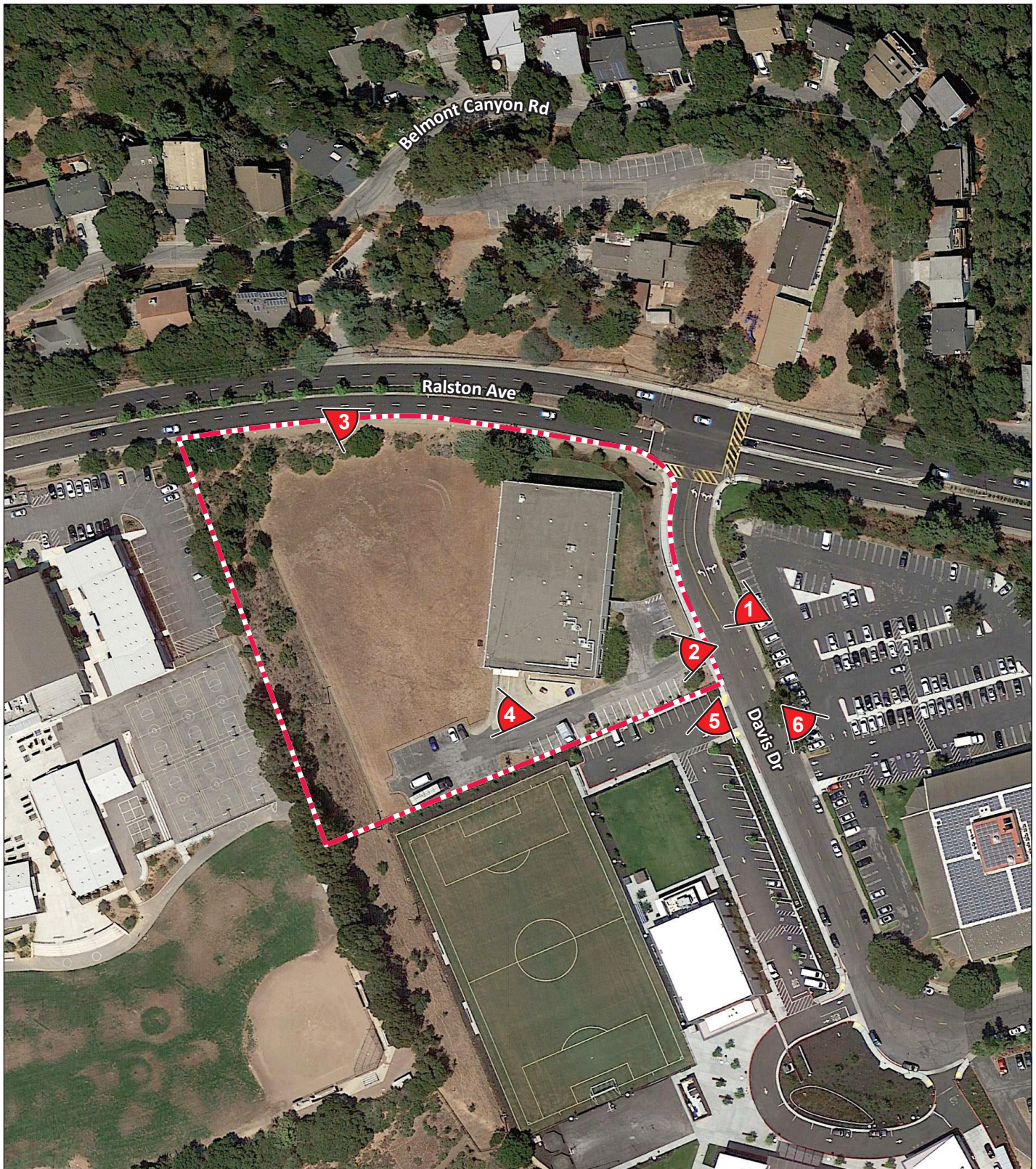


FIGURE 3-4

LSA



Photo Locations



Project Site

2 Davis Drive Project EIR
Photo Locations

SOURCES: GOOGLE EARTH, 8/9/18; LSA, 2020.

P:\BEL1901 2 Davis Drive\PRODUCTS\Graphics\EIR\Figure 3-4.ai (6/8/2020)

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Photo 1: Existing building, as seen from Davis Drive



Photo 2: Southern boundary of the project site

LSA

FIGURE 3-5

2 Davis Drive Project EIR
Photos of Existing Site

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Photo 3: Existing building, as seen from Ralston Avenue



Photo 4: Western portion of the project site

LSA

FIGURE 3-6

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Photo 5: View of the San Mateo County Human Services Agency, directly east of the project site



Photo 6: View of Crystal Springs Uplands School, directly south of the project site

LSA

FIGURE 3-7

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- **West of the Project Site.** The project site is bordered immediately to the west by Ralston Middle School, a middle school in the Belmont-Redwood Shores School District serving grades 6 through 8.⁴ Further west are portions of the Waterdog Lake & Open Space and single-family residential uses.

3.2 PROJECT OBJECTIVES

As provided by the project sponsor, the objectives of the proposed project are to:

- Follow the vision of the City of Belmont 2035 General Plan, which has designated the project site as underutilized and a focus area for economic growth;
- Develop an office building suitable for one or more uses;
- Develop an office building in an underutilized location proximate to major transportation corridors;
- Develop an office building of sufficient density and floor-plate size to allow flexibility in user make-up, particularly focused on life science and information technology users; and
- Dedicate private lands to the City for:
 - A right-turn lane on Ralston Avenue onto Davis Drive, and
 - The construction of a new fire station to better provide service to the surrounding neighborhoods.

3.3 PROPOSED PROJECT

This section provides a description of the proposed project as identified in the application materials submitted by the project sponsor, dated August 4, 2020.⁵ The proposed project would result in the demolition of the existing warehouse building and surface parking lot and redevelopment of the project site with an approximately 77,525-gross-square-foot, four-story office/research and development (R&D) building with three levels of office space above one level of enclosed at-grade parking, as well as associated landscaping, circulation and parking, and infrastructure improvements.

The project would also include dedication of approximately 14,050 square feet of the southeast corner of the site for future development of a new fire station to replace the existing San Mateo Consolidated Fire Department Station 15, which is currently located at 2701 Cipriani Boulevard, approximately 0.3 mile east of the project site. The northeast corner of the site would be dedicated to the City to allow for the construction of a new right-turn lane at the Ralston Avenue and Davis

⁴ Belmont-Redwood Shores School District. Ralston Middle School. Website: <https://ral-brssd-ca.schoolloop.com> (accessed June 2020).

⁵ 2 Davis Court, LLC. 2020. 2 Davis Drive Planning Resubmittal. August 4. It should be noted that project plans may be subject to refinement prior to project approval.

Drive intersection. The proposed project would require a rezone from E2.2 to Planned Development (PD) to allow development of the proposed project. Individual project components are further described below.

Figure 3-8 depicts the currently available conceptual site plans for the proposed project. Conceptual floor plans for the first through fourth levels are shown on Figure 3-9. Conceptual elevations are shown on Figure 3-10, and renderings of the proposed building are shown on Figure 3-11. Figure 3-12 depicts the conceptual landscape plan.

3.3.1 Building Program

The proposed project would result in the redevelopment of the project site with a four-story, approximately 77,525-gross-square-foot office building with one level of above ground parking. The proposed building would be approximately 58 feet in height to the roof line, and would extend to approximately 72 feet with inclusion of the roof screen. As noted above, the ground floor of the proposed building would be an enclosed parking garage, which is described further below. The second through fourth levels of the proposed building would provide approximately 64,059 square feet of occupiable space, consisting of either office or R&D uses. The proposed building would also include a rooftop terrace that would be approximately 3,400 square feet in size.

As shown on Figures 3-10 and 3-11, the massing of the proposed building would be stepped down along Ralston Avenue to match the hillside character of the project site.

3.3.2 Open Space and Landscaping

As shown on Figure 3-12, approximately 39,000 square feet of landscaping would be provided surrounding the proposed building and along Ralston Avenue and Davis Drive, which would consist of water-efficient and native vegetation and trees. Of the existing 23 trees on the project site, 7 would be removed, including 4 protected trees. Approximately 55 new trees would be planted on the project site, including approximately 14 new Coast live oak (*quercus agrifolia*) along Ralston Avenue.

3.3.3 Access, Circulation, and Parking

Pedestrian access to the proposed building would be provided by both Ralston Avenue and Davis Drive. The main lobby and entry lobby would be located on the north side of the proposed building, adjacent to an accessible walkway connecting to the sidewalk along Ralston Avenue.

As noted above, the proposed building would include an at-grade, approximately 22,355-square-foot parking garage that would provide 62 striped parking spaces. Additionally, valet parking within the garage would be provided, which would allow for an additional 37 parking spaces, for a total of 99 spaces. An additional 153 striped surface parking spaces would be provided surrounding the proposed building. Similar to the parking garage, valet parking would also be provided, which would result in an additional 16 spaces, resulting in a total of 169 surface parking spaces. In total, the proposed project would provide 268 parking spaces. A total of 18 bicycle parking spaces would be provided, consisting of 16 long-term spaces in the parking garage and 2 short-term spaces outside of the main lobby.

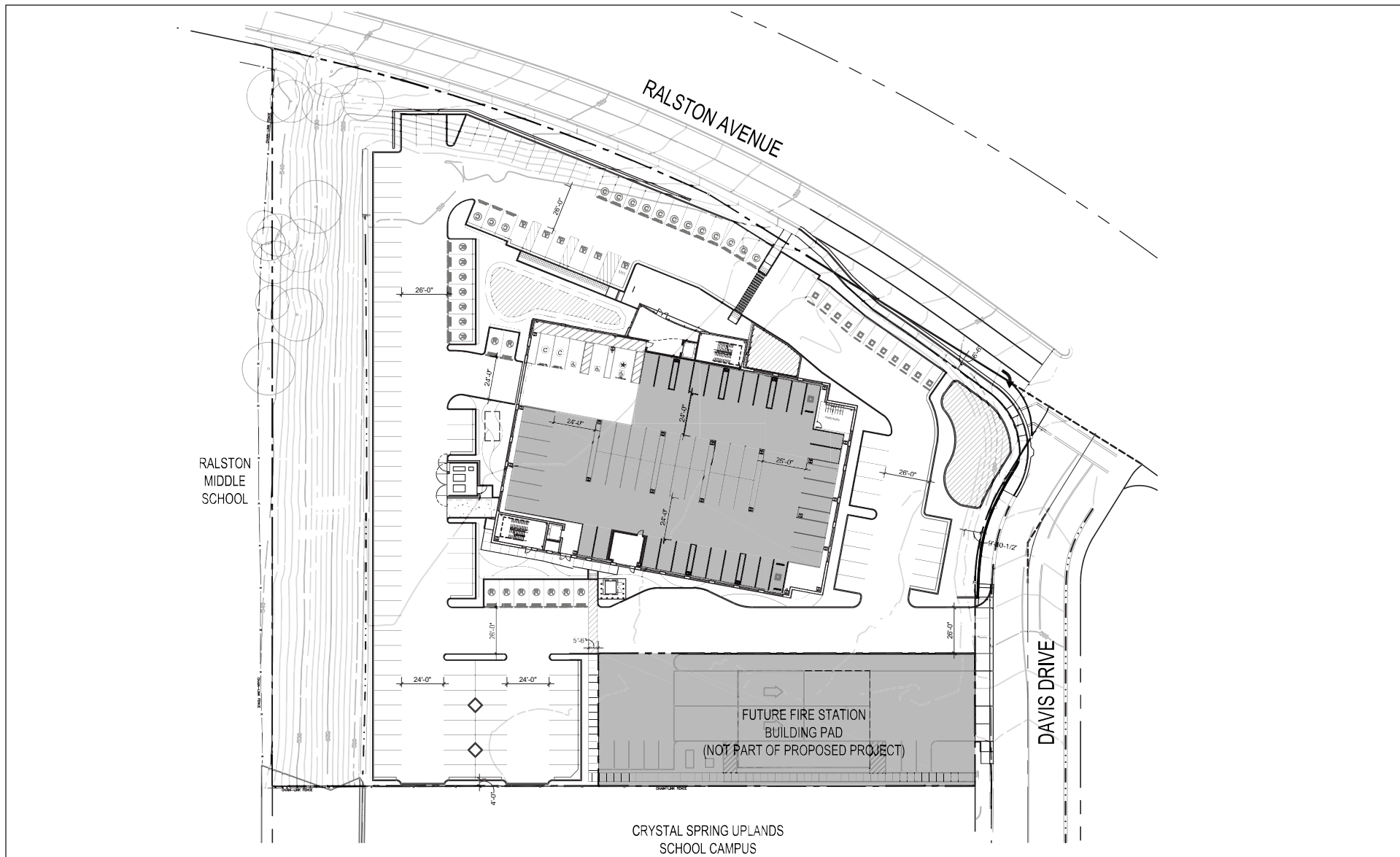


FIGURE 3-8

LSA

2 Davis Drive Project EIR
Conceptual Site Plan

SOURCE: DES ARCHITECTS & ENGINEERS, MARCH 2020.

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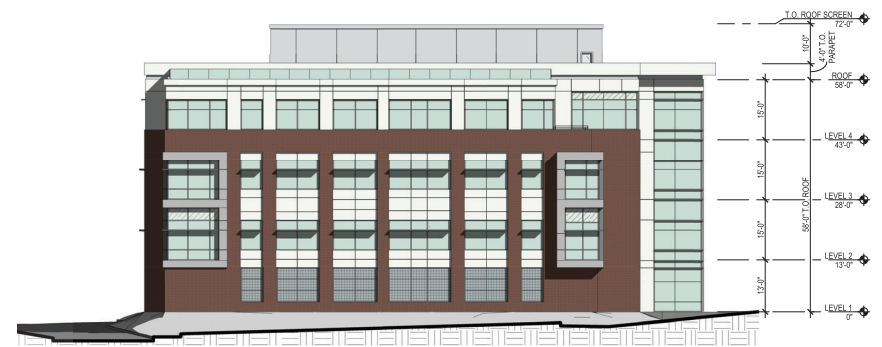
LSA

FIGURE 3-9

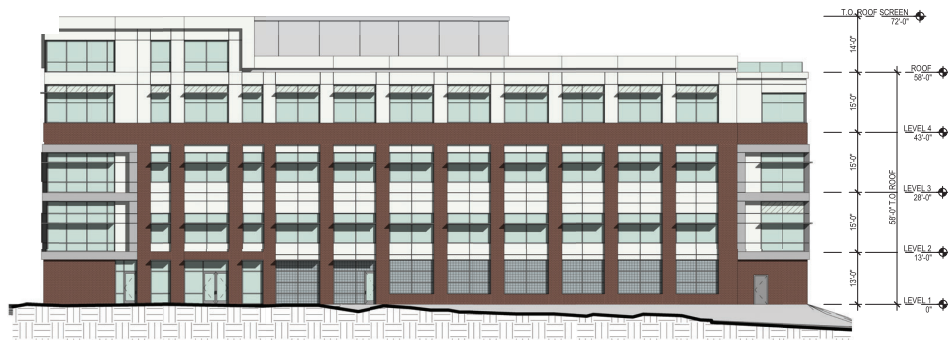
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NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION

LSA

FIGURE 3-10

2 Davis Drive Project EIR
Conceptual Building Elevations

SOURCE: DES ARCHITECTS & ENGINEERS, MARCH 2020.

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VIEW FROM DAVIS DRIVE AND RALSTON AVENUE INTERSECTION, NORTH EAST

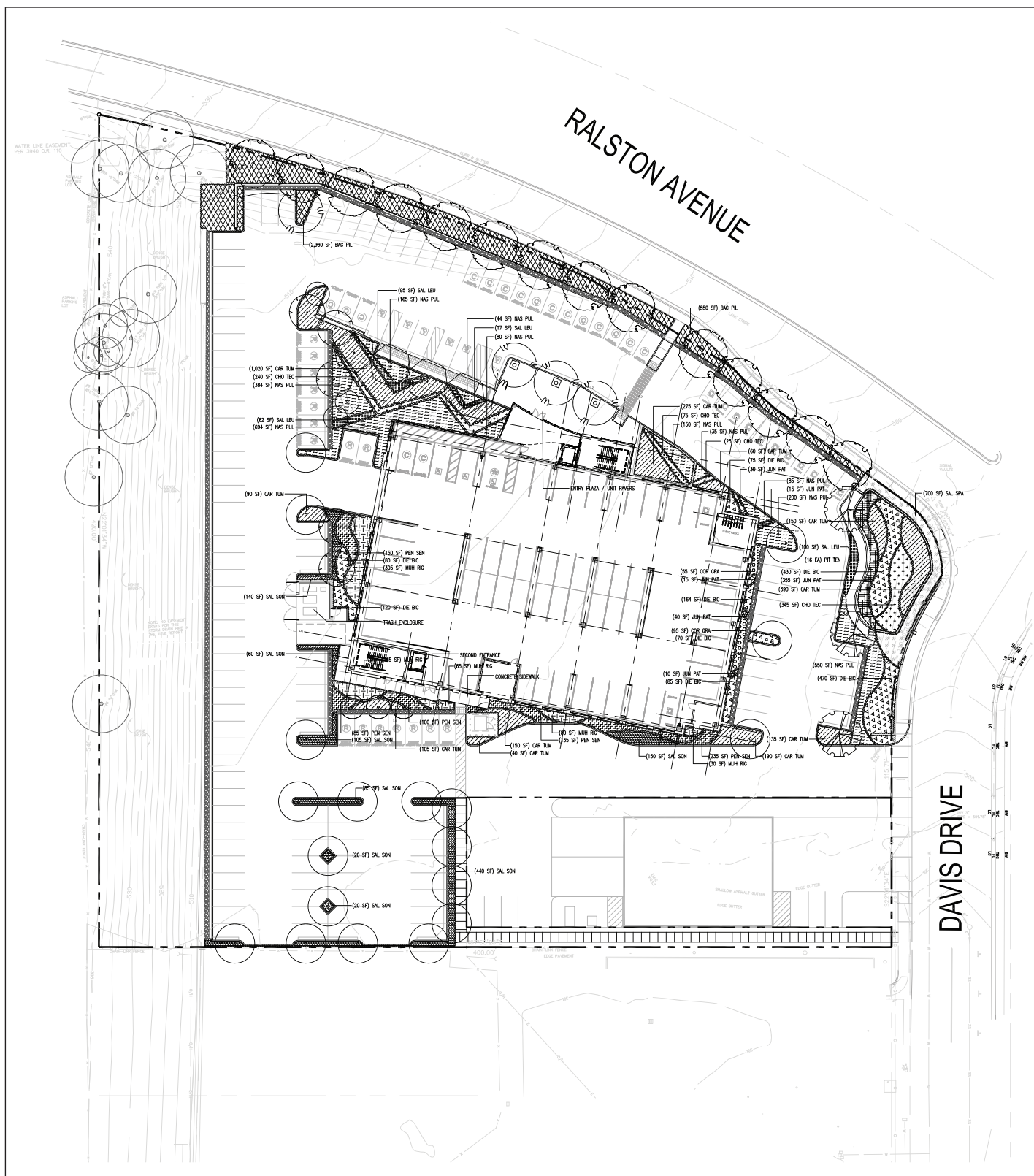


VIEW FROM RALSTON AVENUE, NORTH WEST

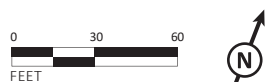
LSA

FIGURE 3-11

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LSA



SOURCE: DES ARCHITECTS & ENGINEERS, MARCH 2020.

P:\BEL1901 2 Davis Drive\PRODUCTS\Graphics\EIR\Figure 3-12.ai (6/9/2020)

2 Davis Drive Project EIR
Conceptual Landscape Plan

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Both the parking garage and surface parking spaces would be accessible via the existing driveway at the southeast corner of the project site along Davis Drive. The proposed project would also include the alteration of Ralston Avenue in the eastbound direction to include a right-turn lane at the Davis Drive intersection. This would be achieved by dedicating an approximately 1,226-square-foot section of the northern boundary of the project site to the City.

3.3.4 Utilities and Infrastructure

The project site is located in an urban area with existing utilities and infrastructure. The proposed project would be required to install the following utility connections to the satisfaction of the applicable utility providers: water; wastewater; stormwater drainage; electricity; and telecommunications services. Connections to existing infrastructure would occur within the adjacent public right-of-way, including the 18-inch storm drain, the 8-inch water main, and the 6-inch sanitary sewer line within Davis Drive. The proposed project would reduce the demand for utilities and infrastructure by incorporating drought-tolerant, non-invasive plants, efficient irrigation, and low-flow fixtures. In addition, the proposed building would be all electric, and would not include any natural gas service or connections.

The existing project site includes approximately 27,782 square feet of impervious surfaces and approximately 97,146 square feet of pervious surfaces. The proposed project would result in a net increase in impervious surface coverage of approximately 56,158 square feet compared to existing conditions, resulting in a total of approximately 83,940 square feet of impervious surfaces and approximately 40,988 square feet of pervious surfaces.

The on-site stormwater would be collected, treated per C.3 treatment methods, and conveyed to the City's storm drain main within Davis Drive. The proposed project would include an approximately 1,100-square-foot bioretention area adjacent to the northwest corner of the proposed building, and approximately 2,350 square feet of flow-through planters located adjacent to the main lobby and in the northeast corner of the project site.

3.3.5 Fire Station 15 Relocation

The proposed project would include dedication of an approximately 14,050-square-foot section of the southeastern corner of the project site that is anticipated to be used for an approximately 9,400-square-foot, three-story fire station. The fire station would share the entry driveway of the proposed office/R&D building. Construction of the fire station itself would not be implemented by the project sponsor, as it would be a separate project pursued by the San Mateo Consolidated Fire Department (SMCFD) and the City of Belmont. The new fire station would replace the existing Station 15, which is currently located at 2701 Cipriani Boulevard, approximately 0.3 mile east of the project site.

The relocated fire station would operate similarly to the existing Station 15. The station would be staffed with a full-time crew of three personnel serving approximately three calls per day based on historical data.⁶ The station would house one all-risk fire engine and other reserve apparatus as

⁶ Thrasher, Kent. 2021. Deputy Fire Chief, San Mateo Consolidated Fire Department. Written communication with Damon DiDonato, Principal Planner, City of Belmont. April 6.

necessary. Construction of the fire station would occur independently of the proposed project; however, its construction and operation is considered to be part of the proposed project evaluated in this EIR.

3.3.6 Demolition, Grading, and Construction

The proposed project would include demolition of the existing building and surface parking lot on the project site. Construction debris, such as old foundations, pavements, and structures, would be collected and hauled off site for disposal. Approximately 944 cubic yards of demolition waste would be generated by the proposed project.

The maximum depth of excavation for the building pad would be approximately 1 foot from the existing grade and the maximum depth of utility trenching would be approximately 10 feet. It is anticipated that a total of 4,950 cubic yards of soil would be excavated and 1,300 cubic yards would be used for fill, and therefore approximately 3,650 cubic yards of cut soil would be exported from the site in a total of 365 truck trips. Construction of the proposed project is anticipated to begin in spring 2024 and would occur over an approximately 16-month period.

In addition, the fire station site would be graded for future construction of the new fire station. Rough grading for the proposed fire station site would be done concurrently with the grading for the office building site. The maximum depth of excavation for the building pad would be approximately 4.5 feet from the existing grade. The site would be left vegetated for erosion control purposes and rough graded to provide surface drainage to an on-site catch basin. Utility stubs would be provided to the property line. Construction of the fire station itself is anticipated to occur in spring 2024, and is assumed to occur over an approximately 6-month period. Closure of the existing station and relocation to the new station would occur in early 2024.

3.4 PERMITS AND APPROVALS

As noted above, the proposed project would require a rezone from E2.2 to PD. In addition, a number of permits and approvals would be required to allow development of the proposed project. As lead agency for consideration of the proposed project, the City of Belmont would be responsible for the majority of the approvals required for project development. Other agencies also may have some authority related to the proposed project and its approvals. A list of required permits and approvals, including the discretionary actions described above, which may be required by the City and other agencies, is provided in Table 3.1, below.

Table 3.1: Anticipated Permits and Approvals

Lead Agency	Permit/Approval
City of Belmont	• EIR Certification • Rezone • Planned Development Permit • Tentative Map • Conditional Use Permit • Detailed Development Plan • Design Review • Grading Plan • Tree Removal Permit • Transportation Demand Management (TDM) Plan
Responsible Agencies	
California Regional Water Quality Control Board/San Mateo Countywide Water Pollution Prevention Program	• Approval of National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge
San Mateo Consolidated Fire Department	• Site Plan review
Silicon Valley Clean Water	• Approval of wastewater hookups
Mid-Peninsula Water District	• Approval of water hookups

Source: LSA (2023).

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4.0 SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter contains an analysis of each potentially significant environmental impact that has been identified for the proposed 2 Davis Drive Project (project). The following (1) identifies how a determination of significance is made, (2) identifies the environmental issues addressed in this chapter, (3) describes the context for the evaluation of cumulative effects, (4) lists the format of the topical issue section, and (5) provides an evaluation of each potentially significant impact in Sections 4.1 through 4.7.

DETERMINATION OF SIGNIFICANCE

The California Environmental Quality Act (CEQA) defines a significant effect as a substantial, or potentially substantial, adverse change in the environment.¹ The “environment” means the physical conditions, which exist in the area including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Each impact evaluation in this chapter is prefaced by criteria of significance, which are the thresholds for determining whether an impact is significant. These criteria of significance are based on the *State CEQA Guidelines* and applicable City of Belmont (City) policies. In determining whether a project's impacts are significant, an Environmental Impact Report (EIR) ordinarily compares the environmental conditions with the proposed project with existing environmental conditions, which are referred to as the “baseline” for the impact analysis. This EIR compares the potential environmental impacts of the proposed project with the baseline environmental conditions in existence at the time that the Notice of Preparation (NOP) was published on May 10, 2021.

ISSUES ADDRESSED IN THIS DRAFT EIR

Sections 4.1 through 4.7 of this chapter describe the environmental setting of the project as evaluated in the EIR and the impact 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:

- 4.1 Land Use and Planning
- 4.2 Biological Resources
- 4.3 Cultural (Historic) Resources
- 4.4 Transportation
- 4.5 Air Quality
- 4.6 Greenhouse Gas Emissions
- 4.7 Noise

Preliminary analysis provided in the Initial Study (Appendix B) determined that development of the proposed project would not result in significant impacts to the following environmental topics: aesthetics, agriculture and forestry resources, cultural resources (archaeological and human remains), energy, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, population and housing, public services, recreation, tribal cultural resources,

¹ California Public Resources Code Section 21068.

utilities and service systems, and wildfire. Consequently, these issues are not examined in this EIR and are briefly addressed in Chapter 6.0, Other CEQA Considerations.

Section 4.1 discusses consistency with the City's land use and planning policies, including the General Plan and the Zoning Ordinance. 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 would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. Any such associated physical environmental impacts are discussed in the Initial Study or appropriate sections of this EIR. City decision-makers will further evaluate zoning compliance and other policy considerations when considering approval of the proposed project.

CUMULATIVE ANALYSIS CONTEXT

CEQA defines cumulative as "two or more individual effects which, when considered together, are considerable, or which can compound to increase other environmental impacts." Section 15130 of the *State CEQA Guidelines* requires that an EIR evaluate potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. These impacts can result from a combination of the proposed project together with other projects causing related impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

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

The cumulative land use assumptions include projections for year 2040 by the Association of Bay Area Governments and the Metropolitan Transportation Commission² with refinements to reflect development projects under construction, approved, and pending in Belmont.

The cumulative context for land use development project effects is typically localized within the immediate vicinity of the project site or at the neighborhood level. For the purposes of such analysis, cumulative projects are typically those within a 1-mile radius of the project site. The City does not have any project applications on file within 1 mile of the project site, and no projects that have been entitled but have not yet begun construction at the time the EIR analysis began (May

² Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC). 2018. *Plan Bay Area Projections 2040*. November.

2021) are located within 1 mile of the project site. Refer to the appropriate discussion in each topical section for further discussion of the cumulative assumptions relevant to each issue topic.

FORMAT OF ISSUE SECTIONS

The environmental topical section is composed of two primary parts: (1) Setting, and (2) Impacts and Mitigation Measures. The following provides an overview of the general organization and the information provided in the two parts:

- **Setting.** The Setting section for the environmental topic generally provides a description of the applicable physical setting (e.g., existing land uses and existing traffic conditions) for the project site and its surroundings in Belmont. It also provides an overview of regulatory considerations that are applicable to each specific environmental topic.
- **Impacts and Mitigation Measures.** The Impacts and Mitigation Measures section for each environmental topic 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 from the proposed project and mitigation measures, if necessary. 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.

Impacts are numbered and shown in bold type, and the corresponding mitigation measures are numbered and indented. Impacts and mitigation measures are numbered consecutively and begin with an acronymic or abbreviated reference to the impact section (e.g., TRA). The following symbols are used for the individual topics:

LU	Land Use and Planning
BIO	Biological Resources
CUL	Cultural (Historic) Resources
TRA	Transportation
AIR	Air Quality
GHG	Greenhouse Gas Emissions
NOI	Noise

Impacts are also categorized by type of impact, as follows: Less Than Significant (LTS), Significant (S), and Significant Unavoidable (SU). These notations indicate the significance of the impact with and without mitigation.

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4.1 LAND USE AND PLANNING

This section describes the existing land uses on and around the project site. Potential impacts related to land use and planning that could result from development of the proposed project are identified and mitigation measures are recommended, as appropriate.

This section also evaluates the proposed project's consistency with applicable planning policies. While this section contains a discussion of the consistency of the project with relevant land use policies, policy conflicts, in and of themselves, do not constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts when they would result in direct physical impacts. Therefore, this section discusses land use policies for informational purposes only. All other associated physical impacts are discussed in this EIR in specific topical sections, as applicable.

4.1.1 Setting

The following subsections provide an overview of the project location, the project site, and adjacent existing and planned land uses.

4.1.1.1 Overview

Belmont is approximately 4.64 square miles in size and is located along the western shore of the San Francisco Bay in San Mateo County. The City is bordered to the north by the City of San Mateo, to the east by the Redwood Shores community of the City of Redwood City, to the south by the City of San Carlos, and to the west by unincorporated land of San Mateo County and Interstate 280 (I-280). Belmont is a relatively suburban area with areas of residential development separated by open space. Retail and commercial uses are primarily located along U.S. Highway 101 (US 101), El Camino Real, and Ralston Avenue. The downtown core is located near the intersection of El Camino Real and Ralston Avenue.

The project site is located in west Belmont and is approximately 20 miles south of San Francisco, as shown on Figure 3-1 in Chapter 3.0, Project Description, of this EIR. The project site is located along the Ralston Avenue corridor, which includes both commercial uses and residential uses in the vicinity of the project site. Regional access to the project site is provided by I-280 and State Route 92 (SR 92) via the Ralston Avenue on- and off-ramps approximately 2.5 miles east of the project site.

4.1.1.2 Existing Land Uses

The rectangular project site is approximately 3.24 acres in size. The project site is currently developed with a single-story, approximately 21,500-square-foot warehouse building and a surface parking lot located along the southern property line. The remainder of the site consists of a flat, undeveloped grassy area west of the existing building, the hillside along the western boundary, vegetation along Ralston Avenue, and retaining walls and berms in the northeast corner. Ingress and egress to the project site are provided by a single driveway along Davis Drive located at the southeast corner of the project site. Existing site conditions are depicted on Figures 3-3 through 3-6 in Section Chapter 3.0, Project Description.

4.1.1.3 Existing Land Uses in the Vicinity of the Project Site

The following provides a description of the existing land uses within the vicinity of the project site. Land uses adjacent to the site are generally identified on Figure 3-2 and depicted on Figure 3-7 in Chapter 3.0, Project Description.

Areas to the North. The project site is bordered immediately to the north by Ralston Avenue, which is an arterial roadway that runs east-west through the City and provides access to SR 92 and I-280 to the west and State Route 82 (SR 82) and US 101 to the east. Uses across Ralston Avenue are primarily single-family residential, with institutional uses such as the Gloria Dei Lutheran Church and Cipriani Elementary School.

Areas to the East. The project site is bordered immediately to the east by Davis Drive, which provides access to the project site. Across Davis Drive is the San Mateo County Human Services Agency, and further east are additional office buildings and single- and multi-family residential uses. The existing San Mateo Consolidated Fire Department Station 15 is located approximately 0.3 mile east of the project site. The San Carlos Airport and San Francisco Bay are located approximately 4 miles east of the project site.

Areas to the South. The project site is bordered to the south by the middle school campus of the Crystal Springs Upland Middle School, a private school serving grades 6 through 12. Further south are the Waterdog Lake & Open Space, a City-owned and operated park with hiking trails and a lake, and the Western Hills neighborhood, which generally consists of single-family residential uses.

Areas to the West. The project site is bordered immediately to the west by Ralston Middle School, a middle school in the Belmont-Redwood Shore School District serving grades 6 through 8. Further west are portions of the Waterdog Lake & Open Space and single-family residential uses.

4.1.1.4 Regulatory Framework

Planning and regulatory considerations that guide land use and development on the project site include the Belmont 2035 General Plan (General Plan) and the Belmont Zoning Ordinance (Zoning Ordinance). The project site is not located within the Airport Influence Area for the San Carlos Airport (the nearest airport to the site), and there are no area or neighborhood plans that are applicable to the site. Brief descriptions of applicable land use and planning policies and requirements are provided below.

Belmont 2035 General Plan. The General Plan, adopted on November 14, 2017,¹ is the City's primary guide for development, housing, transportation, environmental quality, public services, and parks and open spaces. The General Plan has six elements that cover issues including land use; circulation; parks, recreation, and open space; conservation; safety; and noise. A discussion of the applicable General Plan policies is included in Table 4.1.A at the end of this section.

The project site is currently designated Office Commercial (COM-O), which provides for professional office, executive office, and other office uses.

¹ City of Belmont. 2017a. *City of Belmont 2035 General Plan*. November 14.

Belmont Zoning Ordinance. The Zoning Ordinance consists of a zoning map that delineates the boundaries of zoning designations within the City and regulations that govern the use of land and placement of buildings and improvements within the various classes of districts. The purpose of the Zoning Ordinance is to promote and protect the public health, safety, peace, comfort, convenience and general welfare, and to provide a precise guide for the physical development of the City. The project site is located within the Executive Office and Warehouse (E2.2) zoning district. Permitted uses within the E2.2 zoning district include: administrative, executive, and sales offices; financial offices; professional offices; laboratories; and warehousing, storage, and distribution facilities.

4.1.2 Impacts and Mitigation Measures

The following section provides a discussion of impacts related to land use that could result from development of the proposed project. The section begins with the criteria of significance, establishing the thresholds to determine whether an impact is significant. The latter part of this section describes the land use impacts from the proposed project and recommends mitigation measures, if required.

As noted earlier, conflicts between a project and applicable policies do not constitute significant physical environmental impacts in and of themselves; as such, the proposed project's consistency with applicable policies is discussed separately from the physical land use impacts associated with the proposed project. A policy inconsistency is considered to be a significant adverse environmental impact only when it is related to a policy adopted for the purpose of avoiding or mitigating an environmental effect, and it is anticipated that the inconsistency would result in a significant adverse physical impact when evaluated against the established significance criteria. The proposed project's consistency with regional policies related to physical environmental topics (e.g., air quality, transportation, and noise) is analyzed and discussed in those topical sections of the EIR.

4.1.2.1 Significance Criteria

Implementation of the proposed project would have a significant impact on the environment related to land use and planning if it would:

- 1) Physically divide an established community; or
- 2) 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.

4.1.2.2 Project Impacts

The following describes the potential impacts related to land use that could result from implementation of the proposed project.

1) Physically divide an established community

The division of an established community would typically involve the construction of a barrier to neighborhood access (such as a new freeway segment) or the removal of a means of access (such as a bridge or roadway) that would impair mobility within an existing community, or between a community and outlying areas. For example, the construction of an Interstate highway through an

existing community could constrain travel from one side of the community to another. Similarly, such construction could also impair travel to areas outside of the community.

The project site is in west Belmont. Development surrounds the project site on all four sides, including Ralston Avenue and single-family uses to the north, Davis Drive and the San Mateo County Human Services Agency to the east, the middle school campus of the Crystal Springs Upland Middle School to the south, and Ralston Middle School to the west. The proposed project would result in the redevelopment of the project site with a four-story, approximately 77,525-gross-square-foot office building that would include three levels of occupied space above a single-level of ground-floor parking. In addition, the existing San Mateo Consolidated Fire Department Station 15 would be relocated to the site. Neither of these land use changes would result in the physical division of an established community.

The proposed project would include an alteration to Ralston Avenue as it would include a new right-hand turn lane. However, this improvement would not remove any lanes of travel from Ralston Avenue, and instead would increase access to Davis Drive by providing a dedicated turn lane. Portions of Ralston Avenue and Davis Drive may be temporarily closed during this roadway re-configuration and construction. However, this closure would be temporary and would require approval from the City to ensure access to adjacent buildings would be available during construction. Construction of the proposed project would not limit pedestrian, bicycle, or vehicular connections to the site. Therefore, implementation of the project would not result in the physical division of the adjacent surrounding areas or any other established community; this impact would be less than significant.

2) Cause a significant environmental impact due to a land use policy conflict

The following sections address the proposed project's compliance and compatibility with the applicable land use regulations of the General Plan and Zoning Ordinance.

Belmont 2035 General Plan. Potential conflicts with specific General Plan policies are discussed below and evaluated in detail in Table 4.1.A. Only policies adopted for the purpose of avoiding or mitigating an environmental effect and that relate directly to development of the project site are discussed. Goals and policies related to transportation are analyzed in Table 4.4.C, in Section 4.4, Transportation, of this EIR. As indicated in the discussion below, the proposed project would generally be consistent with the General Plan. However, City decision-makers will evaluate the proposed project in the context of the General Plan, and as part of the development review process for the proposed project will consider potential policy conflicts. Consideration of the consistency with General Plan policies would take place independently of the environmental review process.

As shown on Table 4.1.A, the proposed project would be generally consistent with the land use and planning related policies outlined in the City's General Plan and no adverse physical environmental effects would result from any policy inconsistencies; therefore, the project would result in a less than significant impact related to consistency with General Plan policies adopted to mitigate adverse environmental impacts.

Belmont Zoning Ordinance. The project site is within the E2.2 zoning district. As discussed in Chapter 3.0, Project Description, the proposed project would require a rezone from E2.2 to

Planned Development (PD) to allow development of the proposed project. The PD district is designed to accommodate various types of development, such as single-family residential developments, multiple housing developments, neighborhood and community shopping centers, mixed-use developments, professional and administrative areas, commercial service centers, industrial parks, and other uses or a combination of uses which can be made appropriately as part of a Planned Unit Development. The PD district was established to allow flexibility of design, in accordance with the objectives and spirit of the General Plan.

The Zoning Ordinance established that zoning, design, and development standards customized to individual project sites are to be established via a Conceptual Development Plan that, if approved by the City's Planning Commission and City Council, become a part of the Zoning Map. This process ensures that the rezoning process and changes to development standards at the project site are reviewed for conformance with the General Plan, including all land use policies aimed at targeting the environment and reducing environmental impacts.

The project sponsor has acted in compliance with the rezone process. On August 4, 2020, the project sponsor submitted an application for both a Conceptual Development Plan and Environmental Assessment related to the proposed project. The E2.2 district limits development on the project site to a floor-area ratio (FAR) of 0.45 and a maximum height of 28 feet. As previously described, the project site is approximately 3.24 acres (approximately 141,130 square feet). The proposed building would be approximately 77,525 square feet in size, and therefore would have a FAR of approximately 0.55. Additionally, the proposed building would be four stories and approximately 58 feet in height to the roof line, and would extend to approximately 72 feet with inclusion of the roof screen. Therefore, a rezone to the PD district would be required to allow the construction of the proposed project. As a result of the regulations built into the PD zoning district (i.e., zoning and design standards that must conform with the intent of the General Plan), and the project sponsor's compliance with those regulations, the proposed rezone and development standard changes do not represent significant land use policy impacts.

4.1.2.3 Cumulative Impacts

The cumulative geographic context for land use, planning, and policy considerations for development consists of the project site in addition to the surrounding areas and uses abutting the project site.

The area surrounding the project site is largely developed with a mix of commercial, residential, and public/institutional uses. Development of the project would increase the intensity of office use development within the vicinity of the project site; however, other development projects are dispersed geographically throughout the City and would not combine with the project to result in cumulative impacts related to physical division of an established community.

In addition, all other cumulative development has been, or will be, subject to development guidance contained within the General Plan, prescribed by zoning and other applicable land use plans to avoid conflicting with plans adopted to avoid or mitigate environmental effects. Based on the information in this section and for the reasons summarized above, development of the project would not contribute to any significant adverse cumulative land use impacts when considered together with other cumulative development.

Table 4.1.A: Relationship of Proposed Project to Relevant Plans and Policies

Goal/Policy/ Program Number	Policy Summary	Project's Relationship to Policy
Belmont 2035 General Plan – Land Use Element		
Goal 2.3	Provide balanced neighborhoods with a variety of housing types and density ranges to meet the diverse demographic, economic, and social needs of residents, while ensuring a cohesive urban form and regard for compatibility with surrounding uses and existing residential development.	Consistent. The site plan and architectural design have been, and will continue to be, the subject of detailed review by City staff and the Planning Commission to ensure a high-quality design. Existing uses within the immediate vicinity of the project site include schools and office buildings, which would be compatible with the proposed project.
Policy 2.3-4	Focus new development in or directly adjacent to already-developed areas, where it can be served by existing public services and infrastructure.	Consistent. The project site is currently developed with a single-story warehouse building that is currently served by existing public services and infrastructure. The site is surrounding by existing development.
Policy 2.6-6	Ensure that commercial development is designed to include: • Integrated landscaping, parking (if required), signs, and site and building design. • Common ingress and egress, safe and convenient access and internal circulation (depending on site size), adequate off-street parking and loading facilities (if required), and accessibility by multiple modes of transportation. • Architecture that emphasizes establishing community identity while presenting tasteful, dignified, and visually appealing designs compatible with their surroundings.	Consistent. The proposed site design and circulation are analyzed in Section 4.4, Transportation, of this EIR. The site plan and architectural design have been, and will continue to be, the subject of detailed review by City staff and the Planning Commission to ensure a high-quality design.
Policy 2.13-4	Minimize light and glare from new development. <i>See also Policy 5.3-6 in the Conservation Element.</i>	Consistent. As discussed in Section 3.1, Aesthetics, of the Initial Study (provided in Appendix B of this EIR), the proposed project would be required to cast outdoor light downward and only use the minimum amount of outdoor light necessary for safety and security.
Goal 2.23	Conserve designated historic and cultural sites and structures that help define Belmont's identity and character.	Inconsistent. As discussed in Section 4.3, Cultural Resources, of this EIR, the proposed project would result in the demolition of a historic resource. This would be a significant and unavoidable impact of the project.
Policy 2.23-4	Encourage adaptive reuse of historic structures – preserving their original design and character – as an option for preserving sites that are threatened with demolition or degradation.	Inconsistent. Refer to Goal 2.23.
Belmont 2035 General Plan – Parks, Recreation, and Open Space Element		
Policy 4.1-3	Ensure that all development projects comply with the City's parkland dedication requirements, in accordance with the Quimby Act, to provide adequate land for parks, open space, landscaping, and trails in appropriate locations through the dedication of land or otherwise providing for mini parks, planned trails, and other recreational space.	Consistent. As described in Section 3.15, Public Services, of the Initial Study (provided in Appendix B of this EIR) the proposed project would include on-site open space, and the project applicant would be required to pay approximately \$55,043 in Park Improvement Impact Fees.

Table 4.1.A: Relationship of Proposed Project to Relevant Plans and Policies

Goal/Policy/ Program Number	Policy Summary	Project's Relationship to Policy
Goal 4.7	Pursue sufficient and dedicated funding for acquisition, operations, protection, maintenance, and management of parks, recreation facilities, and natural open spaces and to meet the recreational programming and service needs of the Belmont Community.	Consistent. Refer to Policy 4.1-3.
Policy 4.7-1	Ensure that residential and nonresidential development projects contribute to the City's park, recreation, and open space resources commensurate with their impacts, through the Quimby Act and establishment and collection of park impact fees.	Consistent. Refer to Policy 4.1-3.
Belmont 2035 General Plan – Conservation Element		
Goal 5.3	Protect and restore biological and ecological resources in Belmont, including sensitive wildlife species and their habitats.	Consistent. As discussed in Section 4.2, Biological Resources, of this EIR, with implementation of Mitigation Measures BIO-1 through BIO-2d, the proposed project would result in less than significant impacts related to sensitive wildlife species and their habitats.
Policy 5.3-1	Support the protection, preservation, restoration, and enhancement of habitats of State or federally listed rare, threatened, endangered and/or other sensitive and special status species, and favor enhancement of contiguous areas over small, segmented remainder parcels.	Consistent. Refer to Policy 4.1-3.
Policy 5.3-2	Continue to maintain, protect, restore, and enhance Belmont's ecologically important areas and seek to reduce impacts on them, including the creek corridors, the open space, and the wetlands around O'Neill Slough.	Consistent. As discussed in Section 4.2, Biological Resources, of this EIR, no riparian habitats, wetlands, or other sensitive natural communities are present on or immediately adjacent to the project site.
Policy 5.3-3	To the greatest extent feasible, ensure that development does not disturb sensitive habitat and special status species by requiring appropriate and feasible mitigation measures.	Consistent. Refer to Policy 4.1-3 and Policy 5.3-2.
Policy 5.3-6	Avoid light pollution and unnecessary glare by requiring development projects to use design features and shielding methods that cast outdoor light downward and minimize glare and to install the minimum amount of outdoor lighting necessary for safety and security.	Consistent. Refer to Policy 2.13-4.
Policy 5.8-1	Promote solid waste reduction, recycling, and composting to Belmont residents and businesses as an important way to conserve limited natural resources and reduce greenhouse gas emissions.	Consistent. As discussed in Section 4.6, Greenhouse Gas Emissions, of this EIR, the proposed project would provide weekly collection of recyclables and organic waste.

Table 4.1.A: Relationship of Proposed Project to Relevant Plans and Policies

Goal/Policy/ Program Number	Policy Summary	Project's Relationship to Policy
Policy 5.9-2	Encourage development projects of all sizes to incorporate site design measures that facilitate groundwater recharge and natural hydrological processes, allowing stormwater to infiltrate the ground on-site and/or be collected for reuse in landscaping and designated to on-site stormwater detention facilities. Such measures may include: • Canopy trees or shrubs to absorb rainwater; • Grading that lengthens flow paths over permeable surfaces and increases runoff travel time to reduce the peak hour flow rate; • Partially removing curbs and gutters from parking areas where appropriate to allow stormwater sheet flow into vegetated areas; • Installation of green roofs on buildings; • Use of permeable paving in parking lots and other areas characterized by significant impervious surfaces; • On-site stormwater detention, use of bioswales and bioretention basins to facilitate infiltration; and • Integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.	Consistent. As described in Section 3.10, Hydrology and Water Quality, in the Initial Study (provided in Appendix B of this EIR), the proposed project would include stormwater control features that would maintain infiltration of stormwater to the subsurface, and the amount of groundwater recharge would be similar to existing conditions.
Policy 5.10-3	Ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate mitigation measures and best practices.	Consistent. As described in Section 4.5, Air Quality, of this EIR, the proposed project would be required to implement Mitigation Measure AIR-1, which would require the implementation of BAAQMD's Basic Construction Measures.
Policy 5.10-6	Ensure compliance with the most current Bay Area Clean Air Plan by implementing the Plan's recommended Transportation Control Measures (TCMs). <i>See policies under Goal 3.2.</i>	Consistent. As described in Section 4.5, Air Quality, of this EIR, the proposed project would promote BAAQMD initiatives to reduce vehicle trips and VMT and would increase the use of alternate means of transportation.
Policy 5.12-1	Ensure that development avoids potential impacts to sites suspected of being archaeologically, paleontologically, or culturally significant, tribal or otherwise, or of concern by requiring appropriate and feasible mitigation.	Consistent. As discussed in Section 3.5, Cultural Resources, of the Initial Study (provided in Appendix B of this EIR), implementation of Mitigation Measure CUL-1 would ensure that archaeological, paleontological, or cultural resources discovered during construction would be avoided or protected, as appropriate. No tribal cultural resources are known to be present on the site.
5.12-2	If cultural, archaeological, paleontological, or cultural resources, tribal or otherwise, are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected until evaluation by a qualified	Consistent. As discussed in Section 3.5, Cultural Resources, of the Initial Study (provided in Appendix B of this EIR), implementation of Mitigation Measure CUL-1 would ensure that archaeological, paleontological, or cultural resources discovered during construction would be protected

Table 4.1.A: Relationship of Proposed Project to Relevant Plans and Policies

Goal/Policy/ Program Number	Policy Summary	Project's Relationship to Policy
	professional is completed.	until evaluation by a qualified professional is complete.
Belmont 2035 General Plan – Safety Element		
Policy 6.1-1	Continue to maintain and enforce appropriate standards to ensure new development is designed to meet current safety codes and requirements associated with seismic activity. Require public and private development to be located, designed, and constructed to minimize the risk of loss of life and injury in the event of a major earthquake or other natural disaster.	Consistent. As described in Section 3.7, Geology and Soils, of the Initial Study (provided in Appendix B of this EIR), the proposed project would be required to comply with the California Building Code and the recommendations included in the Geotechnical Investigation conducted for this project.
Policy 6.6-3	Continue to review development proposals to ensure that they incorporate appropriate fire-mitigation measures, including adequate provisions for evacuation and access by emergency responders.	Consistent. As described in Section 3.15, Public Services, of the Initial Study (provided in Appendix B of this EIR), the San Mateo Consolidated Fire Department would review project site plans to ensure that adequate emergency access is provided prior to the issuance of building permits.
Policy 6.8-1	Continue to respond without delay to all calls for police assistance as soon as possible consistent with normal safety precautions and vehicle laws. Establish and periodically review procedures and response times to ensure equitable service across the community.	Consistent. As described in Section 3.15, Public Services, of the Initial Study (provided in Appendix B of this EIR), the project site would continue to be served by the Belmont Police Department.
Belmont 2035 General Plan – Noise Element		
Policy 7.1-2	Use the Community Noise Level Exposure Standards, shown in Table 7-1, as review criteria for new land uses. Require all new development that would be exposed to noise greater than the “normally acceptable” noise level range to reduce interior noise through design, sound insulation, or other measures.	Consistent. This EIR addresses potential noise impacts resulting from construction and operation of the proposed project in Section 4.7, Noise, of this EIR. Impacts were determined to be less than significant with implementation of recommended mitigation measures.

Sources: Belmont 2035 General Plan (City of Belmont, November 2017); compiled by LSA (2023).

BAAQMD = Bay Area Air Quality Management District

City = City of Belmont

EIR = Environmental Impact Report

VMT = vehicle miles traveled

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4.2 BIOLOGICAL RESOURCES

This section describes the existing biological resources on and near the project site, including potentially occurring special-status species, sensitive habitats, and/or protected features such as wetlands. Potential impacts to biological resources associated with implementation of the proposed project are described, and mitigation measures are identified, where required.

4.2.1 Setting

This subsection describes: (1) the methods used to establish the baseline conditions for biological resources in the project area; (2) the regulatory context related to biological resources; and (3) existing biological resources occurring within and in the vicinity of the project site.

4.2.1.1 Methods

LSA assessed the biological baseline conditions on the project site by peer reviewing the Biological Resources Report¹ and the Tree Survey Report² prepared for the project by conducting both a desktop-level review of literature and databases, and general reconnaissance-level field review. LSA searched the California Natural Diversity Database (CNDDDB)³ April 3, 2021, for records of special-status species occurrences within 5 miles of the project site to identify occurrences that had been entered since the research was done for the Biological Resources Report. For plants, LSA also reviewed the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California⁴ for the nine quads centered on the San Mateo 7.5-minute United States Geological Survey (USGS) quadrangle. Database search results were supplemented with the in-house knowledge of LSA biologists about the occurrence of special-status species in San Mateo County. LSA also reviewed current and historic Google Earth aerial images of the project site.

LSA biologists conducted reconnaissance-level surveys in 2019 and 2020 to verify whether conditions at the project site were accurately described in the Biological Resources Report and the Tree Survey Report prepared for the project site. The surveys were conducted on foot in order to provide visual coverage of the project site. Species observed during the survey were noted. The reports were updated based on LSA's peer review comments. The updated Biological Resources Report and arborist report are included in Appendices C and D, respectively of this EIR.

¹ H.T. Harvey & Associates. 2018. *2 Davis Drive Redevelopment Project Biological Resources Report*. October 31, 2018 (updated July 28, 2021).

² Arbor Resources. 2018. *Tree Survey Report, 2 Davis Drive, Belmont, California 94002*. August 6, 2018 (updated July 26, 2021).

³ California Department of Fish and Wildlife (CDFW). 2021. California Natural Diversity Database (CNDDDB), Rare Find 5 Commercial Version, April 3. California Department of Fish and Wildlife, Biogeographic Data Branch, Sacramento.

⁴ California Native Plant Society (CNPS), Rare Plant Program. 2021. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). California Native Plant Society, Sacramento. Website: www.rareplants.cnps.org (accessed April 3, 2021).

For the purpose of this analysis, special-status plants are defined as follows:

- Listed under the federal Endangered Species Act (ESA) as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the California Endangered Species Act (CESA) as threatened, endangered, rare, or a candidate species.
- Listed by the CNPS as California Rare Plant Rank (CRPR) 1A, 1B, 2, 3, or 4.

For purposes of this analysis, “special-status” animals are considered animal species that are:

- Listed under the federal ESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the CESA as threatened, endangered, or a candidate threatened or endangered species.
- Designated by the California Department of Fish and Wildlife (CDFW) as a California species of special concern.
- Listed in the California Fish and Game Code as a fully protected species (fully protected birds are provided in Section 3511, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515).

4.2.1.2 Existing Conditions

The landscape setting within the project area consists of developed/landscaped, California annual grassland, and a strip of oak woodland/scrub vegetation. Landscaping generally consists of ornamental species typical for commercial developments in this area (see Land Cover discussion, below).

Land Cover Types. The land cover types of the project site consist of developed/landscaped (including parking areas and other impervious surfaces), California annual grassland, and oak woodland/coyote brush scrub.

Developed/Landscaped. Approximately 1.3 acres of the site are composed of the developed/landscaped land cover type. Much of this area is paved or contains infrastructure and therefore lacks vegetation. Landscaped areas are located adjacent to the existing building and roadsides, primarily along the northeastern and eastern sides of the project site, and include non-native ornamental trees and shrubs, such as bottle brush (*Melaleuca* spp.), juniper (*Juniperus* spp.) shrubs, Chinese elm (*Ulmus parvifolia*), and planted Monterey cypress (*Cupressus macrocarpa*).

California Annual Grassland. California annual grassland covers approximately 1.3 acres of the site. It appears that the grassland was mowed regularly until approximately 2020, but by 2021, some taller coyote brush (*Baccharis pilularis*) shrubs had grown up. The grassland appears to be composed primarily of non-native grasses and ruderal herbaceous vegetation. Species that were identifiable within this habitat type at the time of the surveys included horse weed (*Erigeron canadensis*), willowherb (*Epilobium brachycarpum*), California poppy (*Eschscholzia californica*)

and non-native yellow star thistle (*Centaurea solstitialis*), soft chess (*Bromus hordeaceus*), English plantain (*Plantago lanceolata*), little quacking grass (*Briza minor*), field bindweed (*Convolvulus arvensis*), stinkwort (*Dittrichia graveolens*), storks bill (*Erodium cicutarium*), and cut-leaved plantain (*Plantago coronopus*).

Oak Woodland/Coyote Brush Scrub. The oak woodland/coyote brush scrub habitat type also covers approximately 1.3 acres. This landcover type is situated on a steep hillside that runs along the western side of the project site and partially extends eastward from the northeastern corner of the site. It abuts a developed parking lot to the west and Ralston Avenue to the north, and is contiguous with similar, more expansive oak woodland and chaparral habitat areas to the south of the project site in Waterdog Lake & Open Space. This highly disturbed habitat contains a mixture of native species such as coast live oak (*Quercus agrifolia*), poison oak (*Toxicodendron diversilobum*), and coyote brush, as well as non-native species including eucalyptus (*Eucalyptus* sp.) and French broom (*Genista monspessulana*). There are large amounts of litter in this area that likely came from the uphill and adjacent school and playgrounds.

Special-Status Plant Species. A list of special-status plants with some potential for occurrence in the site vicinity was compiled using the CNDDDB and CNPS query results. Based on an analysis of the documented habitat requirements and occurrence records associated with these species, all were determined to be absent from the project site due to at least one of the following reasons: (1) lack of suitable habitat types; (2) absence of specific microhabitat or edaphic requirements, such as serpentine soils; (3) the elevation range of the species is outside of the range on the project site; and/or (4) the species is considered extirpated from the project vicinity.

Special-Status Wildlife Species. A number of special-status animal species are known to occur in the project vicinity. However, the majority of these species have been determined to be absent from the project site because it lacks suitable habitat, is outside the known range of the species, and/or is isolated from the nearest known extant populations by development or otherwise unsuitable habitat. Animal species considered for occurrence but assumed not to be present, as well as the reasons for this assumption, include the following (among others):

Marsh and Shoreline Species. The project site lacks suitable marsh or Bay shoreline habitat for species associated with San Francisco Bay. These species include the federal and/or State-listed California Ridgway's rail (*Rallus obsoletus obsoletus*), California black rail (*Laterallus jamaicensis coturniculus*), California least tern (*Sterna antillarum browni*), and western snowy plover (*Charadrius alexandrinus nivosus*), as well as the San Francisco common yellowthroat (*Geothlypis trichas sinuosa*) and Alameda song sparrow (*Melospiza melodia pusillula*), both California species of special concern. Therefore, these species are not expected to occur on the project site.

California red-legged frog. The California red-legged frog (*Rana draytonii*), federally listed as threatened and a California species of concern, has CNDDDB occurrences within 5 miles of the site. Its preferred breeding habitat consists of deep perennial pools with emergent vegetation for attaching egg clusters, as well as shallow benches to act as nurseries for juveniles. The project site lacks aquatic habitat for this species. Moreover, critical habitat, which was most recently designated in March 2010, is not present on the project site. For California red-legged

frogs to be present on the site, potential breeding habitat must occur within the maximum known dispersal distance for this species (2.0 miles), and there must be no barriers to dispersal between the breeding site and the project site.

The nearest known, extant record of the California red-legged frog is from Crystal Springs Reservoir, which is located approximately 1.4 miles west of the project site and west of Interstate 280 (I-280). Further, all known breeding locations within a 5-mile radius of the project site are isolated from the project site by substantial urbanization and infrastructure, including I-280, which is a barrier to overland dispersal of red-legged frogs to the project site. Based on an analysis of aerial photographs, the nearest potentially suitable California red-legged frog breeding habitat occurs within Waterdog Lake & Open Space, located approximately 0.2 mile to the south. Whether or not California red-legged frog reproduction is successful in a particular pond largely depends upon the duration the pool remains wet (i.e., the pond must remain inundated long enough for tadpoles to successfully metamorphose, typically through July) and whether or not introduced predators, such as fish or bullfrogs (*Lithobates catesbeiana*), are present. Although Waterdog Lake has a suitable hydroperiod, it is occupied by fish (e.g., bass [*Micropterus* sp.] and bluegill [*Lepomis macrochirus*]) that are predators of the California red-legged frog and is unlikely to provide high quality breeding habitat for the species. Thus, based on the lack of breeding habitat on the project site, the isolation of the site from all known breeding locations by intensive development, and the low quality of the nearest potential breeding habitat, California red-legged frogs are not expected to occur on the project site.

San Francisco Garter Snake. Similar to the California red-legged frog, the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), federal and State-listed as endangered and a fully protected species, is determined to be absent from the site. The San Francisco garter snake is closely associated with the California red-legged frog; adult snakes feed primarily on frogs and tadpoles and occur in the same habitat. The project site is isolated from known San Francisco garter snake populations by impediments to dispersal such as I-280, city streets, and residential developments. The site lacks suitable aquatic habitat and dense vegetative cover such as willows (*Salix* spp.), bulrushes (*Schoenoplectus* spp.), and cattails (*Typha* spp.), and lacks breeding habitat for California red-legged frogs or Sierran treefrogs, its primary prey species. Thus, San Francisco garter snakes are not expected to occur on the project site.

California Tiger Salamander. The project site lacks suitable aquatic breeding habitat for the California tiger salamander (*Ambystoma californiense*), federally and State-listed as threatened. Moreover, this species is not known to occur in the project vicinity. The closest known location is over 5 miles to the south of the project site and west of I-280. Therefore, California tiger salamanders are not expected to occur on the project site.

Western Pond Turtle. The western pond turtle (*Actinemys marmorata*), a California species of special concern, has been observed approximately 1.4 miles southwest of the project site along Crystal Springs Reservoir. However, the project site lacks aquatic habitat for this species and the nearest potentially suitable habitat is located approximately 1,000 feet to the south at Waterdog Lake & Open Space. Thus, because nesting habitat for western pond turtle is typically found within 600 feet of aquatic habitat, this species is not expected to occur on the project site.

Burrowing Owl. A single record of the burrowing owl (*Athene cunicularia*), a California species of special concern, is known from the project vicinity. One adult owl was observed during the winter months of 2000 and 2003 along the trail of the San Mateo Shoreline Park, located approximately 4.3 miles northeast of the project site. However, no owls have been observed in this area during the breeding season (February 1 to August 31), and the owl observed was most likely a wintering individual. During the reconnaissance survey, no suitable burrowing owl habitat (i.e., open grassland with California ground squirrel burrows [*Otospermophilus beecheyi*]) was found on the project site. Furthermore, the nearest known extant population of breeding burrowing owls is found at the Shoreline at Mountain View Regional Park, over 13 miles southeast of the project site and separated by extensive residential and commercial development. Therefore, the burrowing owl is not expected to occur on the project site.

Bat Species. Historically, the pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*), both California species of special concern, were likely present in a number of locations throughout the project vicinity, but their populations have declined in recent decades and these species have been extirpated as breeders from flat bayside lands of the eastern portion of the County. Further, the project site lacks suitable structures or trees with crevices and cavities that would provide habitat for large roosting or maternity colonies of bats. Although individuals of these species may forage over the project site on rare occasions, they are 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.

Two special-status animal species were determined to have the potential to occur on or immediately adjacent to the project site and thus to be impacted by project implementation, the white-tailed kite (*Elanus leucurus*), a fully protected species, and the San Francisco dusky-footed woodrat, a California species of special concern. These species are discussed in detail below.

White-tailed Kite (*Elanus leucurus*). Federal status: None; State status: Fully Protected. In California, white-tailed kites can be found in the Central Valley and along the coast, in grasslands, agricultural fields, cismontane woodlands, and other open habitats. White-tailed kites are year-round residents of the State, establishing nesting territories that encompass open areas with healthy prey populations, and snags, shrubs, trees, or other nesting substrates. Nonbreeding birds typically remain in the same area over the winter, although some movements do occur. The presence of white-tailed kites is closely tied to the presence of prey species, particularly voles, and prey base may be the most important factor in determining habitat quality for white-tailed kite. Trees on and adjacent to the project site provide suitable nesting habitat for the white-tailed kite, and individuals may forage in the California annual grassland habitat on the site. Given the territoriality of breeding white-tailed kites and the small size of the project site, no more than a single pair would be expected to nest on or adjacent to the site.

San Francisco Dusky-footed Woodrat (*Neotoma fuscipes annectens*). Federal status: None; State status: Species of Special Concern. The San Francisco dusky-footed woodrat occurs in a variety of woodland and scrub habitats throughout the South Bay and the adjacent Central Coast Range, south to the Pajaro River in Monterey County. It prefers riparian and oak woodland forests with dense understory cover, or thick chaparral habitat. Dusky-footed woodrats build

large, complex nests of sticks and other woody debris, which may be maintained by a series of occupants for several years. Woodrats also are very adept at making use of human-made structures, and can nest in electrical boxes, pipes, wooden pallets, and even portable storage containers. Woodrat nest densities increase with canopy density and with the presence of poison oak. Although the San Francisco dusky-footed woodrat is described as a generalist omnivore, individuals may specialize on local plants that are available for forage. The breeding season for dusky-footed woodrat begins in February and sometimes continues through September, with females bearing a single brood of one to four young per year.

The trees present within the oak woodland/coyote brush scrub habitat on the project site provide suitable nesting and foraging habitat for the San Francisco dusky-footed woodrat, and three woodrat nests were detected within this habitat during H.T. Harvey & Associates' 2018 reconnaissance-level field survey. Additional surveys conducted subsequently by LSA detected nine nests of this species that appeared to be active in the oak woodland/coyote brush scrub habitat on the project site.

Sensitive Natural Communities, Habitats, and Vegetation Alliances. The CDFW ranks certain rare or threatened plant communities, such as wetlands, meadows, and riparian forest and scrub, as 'threatened' or 'very threatened'. These communities are tracked in the CNDDDB. Impacts on CDFW sensitive plant communities, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under the California Environmental Quality Act (CEQA) (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G). Furthermore, aquatic, wetland and riparian habitats are also afforded protection under applicable federal, State, or local regulations, and are generally subject to regulation, protection, or consideration by the U.S. Army Corps of Engineers (Corps) under Section 401 of the Clean Water Act (CWA) (waters of the U.S.), the Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (waters of the State), the CDFW under Sections 1601–1603 of the California Fish and Game Code, and/or the United States Fish and Wildlife Service (USFWS).

CDFW Sensitive Habitats. Two sensitive habitats occur in the project vicinity: serpentine bunchgrass grassland (Rank G2/S2.2) and northern coastal salt marsh (Rank G3/S3.2). Serpentine bunchgrass occurs only on serpentine soils, which do not occur on the project site. Northern coastal salt marsh occurs along sheltered inland margins of bays, often co-dominated by pickleweed (*Salicornia* spp.), cordgrass (*Spartina* spp.), and sometimes saltgrass (*Distichlis spicata*). None of these species was noted on the project site; thus, this habitat type is also determined to be absent. The CDFW also maintains a list of vegetation alliances and associations within the State of California. This list includes global (G) and state (S) rarity ranks for associations and alliances. Alliances and associations currently ranked as S1-S3 are considered highly imperiled. No sensitive alliances or associations are present on the project site.

Sensitive Habitats (Waters of the U.S./Waters of the State). The surveys of the project site did not identify any wetlands or other waters that would fall under the jurisdiction of the Corps (waters of the U.S.), or under the jurisdiction of the RWQCB or CDFW (waters of the State) on the project site. A concrete V-ditch located on the western boundary of the annual grassland is not expected to be considered waters of the U.S. or waters of the State because it was

constructed in uplands, carries only stormwater runoff, and no streams or wetlands upslope feed into it.

4.2.1.3 Regulatory Framework

Biological resources on the site may fall under the jurisdiction and regulations of the agencies listed below.

United States Fish and Wildlife Service. The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered species under the federal ESA. The ESA protects listed species from harm or “take” which is broadly defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” An activity can be defined as a “take” even if it is unintentional or accidental.

An endangered species is one that is in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future. In addition to endangered and threatened species, which are legally protected under the federal ESA, the USFWS maintains a list of candidate species. Candidate species are specifically included on a list published in the Federal Register. Federal candidate species are not afforded legal protection under the federal ESA.

U.S. Army Corps of Engineers. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (Corps) is responsible for regulating the discharge of fill material into waters of the U.S. The waters of the U.S. and their lateral limits are defined in 33 Code of Federal Regulations (CFR) Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed “isolated wetlands” and may be subject to Corps jurisdiction.

In general, a Corps permit must be obtained before placing fill in wetlands or other waters of the U.S. The type of permit depends on the acreage involved and the purpose of the proposed fill. Nationwide Permits are available for projects that are anticipated to have minimal impacts on waters of the U.S. and wetlands and meet the general terms of the specific Nationwide Permit and the standard conditions for all Nationwide Permits. An Individual Permit is required for projects that result in more than a “minimal” impact on wetlands. The Corps would be required to consult with the USFWS under Section 7 of the Endangered Species Act if a project subject to Clean Water Act permitting will result in take of a federally listed species. The Corps must also consult with the RWQCB regarding potential impacts to water quality.

Migratory Bird Treaty Act. The federal Migratory Bird Treaty Act (MBTA) (16 U.S.C., Sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Most native bird species on the project site are covered by this Act. The California Fish and Game Code (Sections 3503 and 3505) prohibits the take, destruction, or possession of any bird, nest, or egg of any bird unless express authorization is obtained from the CDFW.

California Department of Fish and Wildlife. The California Department of Fish and Wildlife (CDFW) has jurisdiction over State-listed as threatened, endangered, and rare (plant) species under the CESA. In addition, species proposed for listing under CESA are also protected until a determination is made on the listing proposal. The State and federal lists are generally similar, although a few species present on one list may be absent from the other list. The State also maintains lists of special-status wildlife species identified as species of special concern. These are species whose status is being monitored due to one or more threats. Species on these lists are not afforded legal protection. The CDFW also exerts jurisdiction over the bed and bank of watercourses according to the provisions of Sections 1601 to 1603 of the California Fish and Game Code. The CDFW typically requires a Streambed Alteration Agreement for the fill or removal of material from any natural drainage. The jurisdiction of the CDFW under the Fish and Game Code extends to the top of bank of a stream.

Regional Water Quality Control Board. Pursuant to Section 401 of the Clean Water Act, projects that require a permit from the Corps under Section 404 must also obtain water quality certification from the RWQCB. This certification ensures that the project will uphold State water quality standards. The RWQCB requires mitigation for any loss of jurisdictional area.

Porter-Cologne Water Quality Control Act. This act authorizes the RWQCB to regulate the discharge of waste that could affect the quality of the State's waters. Projects that do not require a federal permit may still require review and approval by the RWQCB. The RWQCB focuses on ensuring that projects do not adversely affect the "beneficial uses" associated with waters of the State. In most cases, the RWQCB requires the integration of water quality control measures into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction best management practices.

CEQA Guidelines Section 15380. Although threatened and endangered species are protected by specific federal and State statutes, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of endangered or threatened species may be considered rare or endangered if the species can be shown to meet certain, specified criteria. These criteria have been modeled after the definition in the federal ESA and the section of the California Fish and Game Code dealing with rare or endangered species. Section 15380 (b) was included in the Guidelines primarily to address 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 the USFWS or CDFW. Thus, CEQA provides a lead agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

California Native Plant Society. The California Native Plant Society (CNPS) is a non-governmental nonprofit organization that publishes an online rare plant inventory. The online inventory provides a California Rare Plant Rank (CRPR) for each species. Although the CNPS has no regulatory authority and does not issue permits, the plant species it deems rare must be addressed under CEQA, per CEQA Guidelines Section 15380.

Belmont Municipal Code. Chapter 25 of the City of Belmont Municipal Code addresses the protection of regulated trees. Regulated trees are defined as:

- Coast live oak, valley oak (*Quercus lobata*), coast redwood (*Sequoia sempervirens*), madrone (*Arbutus menziesii*), bay laurel (*Laurus nobilis*), and buckeye (*Aesculus glabra*) having a single main stem or trunk of 10 inches or more diameter at breast height (DBH)
- All other species with a main stem or trunk of 14 inches or more DBH
- Multi-stemmed trees totaling 18 inches or more DBH

Belmont General Plan. The Conservation Element of the Belmont General Plan includes policies for the conservation of natural resources. The primary biological resources policies applicable to the proposed project include the following:

- **Policy 5.1-3:** Reduce risk of wildland fire, ecological succession, and pathogen threats (such as Sudden Oak Death) through active maintenance of public spaces and education and enforcement of development standards on private property.
- **Policy 5.3-1:** Support the protection, preservation, restoration, and enhancement of habitats of State or federally listed rare, threatened, endangered and/or other sensitive and special status species, and favor enhancement of contiguous areas over small, segmented remainder parcels.
- **Policy 5.3-2:** Continue to maintain, protect, restore, and enhance Belmont's ecologically important areas and seek to reduce impacts on them, including the creek corridors, the open space, and the wetlands around O'Neill Slough.
- **Policy 5.3-3:** To the greatest extent feasible, ensure that development does not disturb sensitive habitat and special status species by requiring appropriate and feasible mitigation measures.
 - **Action 5.3-3a:** Establish guidelines for habitat conservation and mitigation programs when sensitive habitat or special status species would be disturbed by development. These could include, but are not limited to:
 - Protocols for the evaluation of a site's environmental setting and proposed design and operating parameters of proposed mitigation measures.
 - Methodology for the analysis of land to be acquired or set aside for mitigation activities.
 - Parameters for specification of the types and sources of plant material used for any revegetation, irrigation requirements, and post-planting maintenance and other operational measures to ensure successful mitigation by the project proponent.
 - Monitoring at an appropriate frequency by qualified personnel and reporting of data collected to permitting agencies, if necessary.
 - **Action 5.3-3b:** If Endangered or Threatened Species are discovered prior to or during construction of a development project, require project proponents to consult a qualified

biologist for recommended proper action, and incorporate appropriate mitigation measures.

- **Policy 5.3-4:** Maintain functional wildlife corridors and habitat linkage in order to contribute to regional biodiversity and the viability of rare, unique or sensitive biological resources throughout the city and region.
- **Policy 5.3-5:** In design and construction, require use of best practices that preserve natural resources, such as soil, trees, native plants, and permeable surfaces.
- **Policy 5.3-6:** Avoid light pollution and unnecessary glare by requiring development projects to use design features and shielding methods that cast outdoor light downward and minimize glare and to install the minimum amount of outdoor lighting necessary for safety and security.
 - **Action 5.3-6a:** Update the Zoning Ordinance to include outdoor lighting standards consistent with best practices for safety and lighting to reduce high intensity outdoor lighting and glare.
- **Policy 5.3-7:** Encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure the maximum number and variety of well-adapted plants are maintained.
- **Policy 5.3-8:** Use native or drought-resistant vegetation in landscaping on City-owned property, and encourage private property owners to use native or drought-resistant vegetation in landscaping on private property.
- **Policy 5.3-9:** Promote the healthy growth of trees and control the removal of trees within the city.
 - **Action 5.3-9a:** Maintain and enforce the City's Tree Ordinance to provide adequate and reasonable tree protection and removal standards and best management practices.

4.2.2 Impacts and Mitigation Measures

The following section provides a discussion of potential impacts to biological resources that could result from construction and operation of the proposed project. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact is significant. The remainder of this section presents the impacts associated with the proposed project and identifies mitigation measures, as appropriate.

4.2.2.1 Significance Criteria

Implementation of the proposed project would have a significant impact on the environment related to biological resources if it would:

- 1) 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 CDFW or USFWS;
- 2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS;
- 3) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act or other waters of the State through direct removal, filling, hydrological interruption, or other means;
- 4) Create substantial interference 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;
- 5) Conflict with the provisions of an approved local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance; or
- 6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

4.2.2.2 Project Impacts

The following section discusses potential impacts to biological resources associated with implementation of the proposed project. Potential impacts are differentiated between temporary construction-related impacts and permanent operational impacts.

1) Adversely affect special-status species

No impacts to special-status plant species would occur, given that none are known to occur within or in the immediate vicinity of the project site. Potential construction- and operation-period impacts to two special-status wildlife species —white-tailed kite and San Francisco dusky-footed woodrat—are discussed below. As discussed, impacts to white-tailed kite would be less than significant, and impacts to dusky-footed woodrat would be less than significant with mitigation.

White-Tailed Kite. The white-tailed kite (a fully protected species) may nest in trees adjacent to open grassland or wetland habitats within and adjacent to the project site, which provide suitable foraging habitat. Heavy ground disturbance, noise, and vibrations caused by project development activities could disturb foraging or roosting individual white-tailed kites and cause them to move away from work areas. Project grading may result in the removal of active nests, and grading, fuel load management in the oak woodland/coyote brush scrub, and construction could result in the disturbance of nests adjacent to the project site, possibly to the point of abandonment of active nests with eggs or nestlings. However, based on LSA's site observations, the areal extent of the project site, and known breeding densities of this species, no more than one pair of white-tailed kite is expected to nest on or adjacent to the project, if this species is present at all. Therefore, the loss of individuals potentially resulting from project development

would represent a very small fraction of the regional population of these species, and this impact would be less than significant.

Project activities could also result in the loss of foraging habitat for white-tailed kite. However, development of the project site is not expected to result in a substantial effect on populations of this species given the local and regional abundance of suitable foraging and nesting habitat, and the very small proportion of suitable habitat that would be impacted. Therefore, neither the potential loss of individual white-tailed kite nor the loss of potential nesting or foraging habitat for this species would result in a direct or indirect adverse effect to this species, and this impact would be less than significant. However, all native bird species, including white-tailed kite, are protected from direct take by federal and State statutes. This impact is further discussed under Impact BIO-3, below.

San Francisco Dusky-footed Woodrat. The oak woodland/coyote brush scrub habitat on the project site provides suitable nesting and foraging habitat for the San Francisco dusky-footed woodrat, a California species of special concern, and up to nine woodrat nests were detected within this habitat during field surveys conducted for the project. Construction and operation-period impacts to this species would be potentially significant, as discussed below.

Impact BIO-1: Construction and operation of the proposed project could adversely affect San Francisco dusky-footed woodrats, a California species of special concern. (S)

Project activities might result in the injury or mortality of dusky-footed woodrats due to clearing and grading and worker foot traffic, particularly if disturbance occurs when woodrats are taking refuge in their stick nests. Wildfire fuel load management is expected to occur within this habitat as well that would involve the removal of low brush and dead plant material that provides cover for woodrats and structural support for some nests. Fuel management could result in the physical removal of woodrat nests and disturbance of nests that are left in place, potentially resulting in injury or mortality of woodrats and nest abandonment. Lighting proposed around the periphery of the parking lot could make woodrats more visible to nocturnal predators, thereby increasing predation.

If rodenticides are used around buildings following construction, woodrats could be lost to poisoning. Also, if tenants of future buildings bring pets to work, or if human food waste is not handled appropriately and is made available to species such as cats or dogs that may then prey on woodrats, predation on woodrats could increase. However, LSA biologists observed rodenticide bait stations around the existing warehouse during site surveys, and there is no indication that the project would substantially increase the presence of pets or the attraction of predators; therefore, the degree to which these potential impacts may increase as a result of the project, relative to baseline conditions, is uncertain.

Despite the species' designation as a California species of special concern, San Francisco dusky-footed woodrats are relatively common in suitable habitat regionally. For example, scrub, oak woodland, and riparian habitats in the project vicinity and elsewhere throughout much of the San Francisco peninsula can support high densities of woodrats and their nests. As a result, some loss of woodrats as a result of the project could occur without having a substantial effect on populations of

this species. Nevertheless, this species is important ecologically both due to its role as prey for a variety of avian and mammalian predators and because its nests can be used by other small mammals, as well as a variety of invertebrate, reptile, and amphibian species, as dens or refuge. Therefore, the loss of individual dusky-footed woodrats and their nests is a potentially significant impact. Implementation of Mitigation Measure BIO-1 would reduce these impacts. Although some residual impacts to woodrats would occur as a result of the project, even with implementation of Mitigation Measure BIO-1, this mitigation would reduce impacts to a less-than-significant level.

Mitigation Measure BIO-1 The following measures shall be implemented prior to any ground disturbance, vegetation removal (including wildfire fuel load management), or other activities in oak woodland/coyote brush scrub habitat on the project site to minimize impacts to active nests of woodrats.

- No more than 15 days prior to disturbance of suitable habitat for the San Francisco dusky-footed woodrat, a pre-activity survey for woodrat nests shall be conducted by a qualified biologist. The survey shall consist of walking through all areas of suitable habitat within the project work area looking for woodrat nests, both on the ground and in vegetation. All woodrat nests detected within the survey area shall be flagged and mapped.
- A 5-foot buffer shall be maintained between project activities and each nest to avoid disturbance. A smaller buffer may be allowed if, in the opinion of a qualified biologist, working within 5 feet of the nest would not damage the nest and the biologist monitors the work.
- If avoidance of active woodrat nests is not feasible (e.g., nests are the project disturbance area), the woodrats shall be evicted from their nests prior to the removal of the nests and onset of ground-disturbing activities to avoid injury or mortality of the woodrats. The eviction of woodrats and dismantling of woodrat nests shall begin no earlier than one hour before sunset to allow woodrats to escape under cover of dusk and avoid predators. A qualified biologist shall disturb the woodrat nest to the degree that all woodrats leave the nest and seek refuge outside of the project activity area. Subsequently, the nest sticks shall be relocated; these materials shall be gathered onto a tarp and then piled at the base of a nearby tree or shrub in an area that will not be directly impacted by project activities. The spacing between relocated nests and existing nests shall be maximized (at least 20 feet, if feasible) to avoid over-crowding.
- If, during dismantling of a woodrat nest, young woodrats are detected, the nest shall be reassembled and left in place. The

qualified biologist shall revisit the nest after 3 days to determine whether it is still active, or whether the mother relocated the young to another area. Once the nest is determined to be inactive or the young are large enough to disperse on their own, the nest shall be dismantled and the nest materials relocated.

- During operation-period wildfire fuel management, no woodrat nests shall be removed, and removal of vegetation within 5 feet of each nest shall be minimized. (LTS)

2) Adversely affect riparian habitat or a sensitive natural community

No riparian habitats or other sensitive natural communities are present on or immediately adjacent to the project site, and thus none will be impacted by the project and there would be no impact.

3) Adversely affect protected wetlands

No wetlands or other waters of the U.S. or waters of the State occur on, or immediately adjacent to, the project site. Thus, the project would result in no direct or indirect impacts on jurisdictional wetlands.

4) Interfere with the movement of native resident or migratory fish or wildlife species, migratory wildlife corridors, or nursery sites

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller, they are unable to support as many individuals (patch size), and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

A majority of the proposed project activities are located within an already developed footprint, which is primarily surrounded by existing development. Furthermore, the remaining habitat areas to be developed on the project site (i.e., California annual grassland) are currently mostly separated from similar nearby habitats by existing roadways and development. As a result, the project site does not currently provide high-quality areas for wildlife movement.

Nevertheless, some animals are expected to move through the site. Extensive natural habitats (e.g., scrub and oak woodland) are present at Waterdog Lake & Open Space, and in open space areas between Waterdog Lake & Open Space and the project site, as close as 0.15 mile south of the project site. Additional open space is present to the north, north of Ralston Avenue and Belmont Canyon Road. Animals may move between those open space areas, possibly using the strip of oak woodland/coyote brush scrub along the western part of the project site as cover or refuge during such dispersal events.

Project activities would likely reduce the value of the project site for use by dispersing animals to some extent. Development of grassland and some oak woodland/coyote brush scrub would result in the removal of natural habitat that might attract wildlife or be used by dispersing animals, and construction of buildings would impede wildlife movement across the existing natural habitats on the project site. Wildfire fuel load management would result in the removal of some lower vegetation from the strip of oak woodland/coyote brush scrub, thereby reducing cover and refuge opportunities for dispersing animals. Noise, lighting, and human activity would increase during both construction and operation of the project, potentially altering animal behavior and discouraging some animals from moving through the site.

However, the project's impacts on wildlife movement are not expected to substantially impede the movement of any species, or of animals in general, within the site vicinity.

The disturbed oak woodland/coyote brush scrub habitat on the site would still provide some cover and refuge for use by dispersing animals, even with wildfire fuel load management. Many animals are still expected to move through the site despite any increase in project noise, lighting, or human activity. Also, the project site is not the only location where animals can move between open space areas to the north and south; a vegetated strip similar to that on the project site is present to the east, west of residences along Arroyo View Circle, and animals would be able to continue using that strip of vegetation during local movements between open space areas. This strip of vegetation is continuous with chaparral and woodland habitat in open space to the south of the project site, and would not be impacted by project activities. Therefore, the proposed project would not result in the fragmentation of natural habitats or substantial impediments to wildlife movement, and any common, urban adapted species that currently move through the project site would continue to be able to do so following project construction. As such, the project would not significantly interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, and this impact would be less than significant.

The project site does not provide extensive and/or high-quality habitat areas that would support large breeding populations of any wildlife species, and therefore, no native wildlife nursery sites are present. However, small numbers of native bird species nest on the project site.

Impact BIO-2: Tree and vegetation removal activities occurring during project construction could result in direct impacts to nesting birds, which are protected by the Migratory Bird Treaty Act and California Fish and Game Code. (S)

Tree and vegetation removal and construction disturbance 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 the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. With the exception of the white-tailed kite, as discussed in Section 4.2.2.3 above, the habitats on the project site are expected to support only regionally common, urban-adapted breeding birds, due to the absence of sensitive habitats from the project site. In addition, many birds are expected to continue to nest and forage on the project site after project construction is completed. These birds are habituated to disturbance related to the surrounding developed areas, which support only a very small proportion of these species' regional populations. Therefore, project impacts on nesting and foraging birds that use the site, due to

habitat impacts or disturbance of nesting birds would be less than significant. However, all native bird species' nests are protected from direct take by federal and State statutes. Therefore, the following measures shall be implemented to ensure that project activities comply with the MBTA and California Fish and Game Code. Implementation of this measure would ensure that project impacts would be less than significant.

Mitigation Measure BIO-2 The following measures shall be implemented during the construction period to reduce potential impacts to nesting bird species:

- 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.
- If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Surveys shall be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist shall inspect all trees and other potential nesting habitats (e.g., trees, shrubs, grasslands, buildings) in and immediately adjacent to the impact areas for nests.
- If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist shall determine the extent of a 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 protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.
- If construction activities are not initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation, and prevent the potential delay of the project due to the presence of active nests in these substrates. (LTS)

5) Conflict with applicable policies or ordinances protecting biological resources

The project would not conflict with any of the policies in the Conservation Element of the Belmont General Plan. Per the City of Belmont Municipal Code Chapter 25, a permit is required to remove any regulated tree, defined as:

- Coast live oak, valley oak, coast redwood (*Sequoia sempervirens*), madrone (*Arbutus menziesii*), bay laurel (*Umbellularia californica*), and buckeye (*Aesculus glabra*) having a single main stem or trunk of 10 inches or more diameter at breast height (DBH)
- All other species with a main stem or trunk of 14 inches or more DBH
- Multi-stemmed trees totaling 18 inches or more DBH

Of the existing 23 trees on the project site, 7 would be removed, including 4 protected trees, consisting of two olives (*Olea europaea*), one Monterey cypress, and one coast live oak. These trees are considered protected trees because they are regarded by the City Municipal Code as Large Diameter Trees, while the Coast live oak is also a Principal Native Tree. Approximately 55 new trees would be planted on the project site, including approximately 14 new Coast live oak along Ralston Avenue. Removal of regulated trees requires a permit from the City and replacement of any regulated trees removed as required by the City Municipal Code. Therefore, impacts related to conflicts with local policies or ordinances would be less than significant.

6) Conflict with an adopted habitat conservation plan

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

4.2.3 Cumulative Impacts

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future projects in the region. Future development activities in the City of Belmont would result in impacts on the same habitat types and species that would be affected by the proposed project. The proposed project, in combination with other projects in the area and other activities that impact the species that are affected by this project, could contribute to cumulative effects on special-status species. Other projects in the area, but not within the immediate vicinity of the site, include office/retail/commercial development, mixed use, and residential projects that could adversely affect these species.

The cumulative impact on biological resources resulting from the project in combination with other projects in the project area and larger region would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; and compensatory mitigation and proactive conservation measures associated with each project. In the absence of such avoidance, minimization,

compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

However, the City of Belmont General Plan contains conservation measures that would benefit biological resources. Further, the project would implement a number of measures to reduce impacts on both common and special-status species, as described above. Thus, the project would not contribute to any significant cumulative impacts to biological resources, and cumulative impacts to these resources would be less than significant.

4.3 CULTURAL RESOURCES

This section describes the existing cultural resources conditions within the project site and vicinity, identifies potentially significant impacts to such resources that may result from development of the proposed project, and recommends mitigation measures to reduce the severity of potentially significant impacts. Cultural resources are sites, buildings, structures, objects, and districts that may have traditional or cultural value for their historical significance, such as, but not limited to, historic buildings and bridges of architectural significance.

As discussed in the Initial Study prepared for the proposed project (provided in Appendix B of this EIR), the proposed project would have less than significant impacts related to archaeological and tribal cultural resources and human remains. Therefore, these topics are not further addressed in this EIR.

In addition to the references listed in this section, a Historic Resource Evaluation (HRE)¹ was prepared for the built environment resources located within the project site; the HRE was used in the analysis provided in this section and is included as Appendix E of this EIR. Additionally, a peer review of the HRE was prepared.² The HRE was subsequently updated after preparation of the peer review.

4.3.1 Setting

To characterize the setting for cultural resources at the project site, the following tasks were completed: (1) a records search was conducted at the Northwest Information Center (NWIC); and (2) the existing building on the project site was evaluated to determine its eligibility for listing in the California Register of Historical Resources (California Register) and the National Register of Historic Places (National Register). The results of these tasks are summarized below. This section also includes an overview of the applicable regulatory context related to cultural resources.

4.3.1.1 Records Search

The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official State repository of cultural resources records and reports for San Mateo County. The NWIC database indicates that there are no recorded cultural resources at, or within a one-quarter-mile radius of, the project site. Additionally, no previous studies included the project site. One previously recorded study was identified within a one-quarter-mile radius of the project site. As noted above, this study did not record any cultural resources.³

4.3.1.2 Historical Background

The historical context of the project area is discussed below.

¹ Archaeological Resource Management. 2021b. *Historic Evaluation of the Structure at 2 Davis Drive*. June 8.

² LSA Associates, Inc. 2021. *Peer Review of Historic Evaluation and Cultural Resource Reports for the 2 Davis Drive Project, Belmont, San Mateo County*. May 19.

³ Archaeological Resource Management. 2021a. *Cultural Resource Evaluation of the Project at 2 Davis Drive in Belmont, California*. June 8.

City of Belmont. The project site, and much of the land that would become the City of Belmont, is located within the Rancho de las Pulgas, which was originally granted to José Dario Arguello in 1795. The community, which would become what is now the City of Belmont, began its development in the 1850s at what was then the intersection of Canada del Diablo and the San Francisco-San Jose Road, where Charles A. Angelo opened a stage line roadhouse in 1850. A small village began to form around this intersection, and was likely given the name ‘Belmont’ by land speculators promoting the sale of properties there. Although still a small community, Belmont would become the first seat of San Mateo County in 1856.

By the mid-1850s, the land that would become the city of Belmont was occupied by a number of influential landowners, including Simon Mezes, who owned the Mezes Ranch, former California Governor John MacDougal, Italian aristocrat Leonetto Cipriani, and San Francisco financier William Ralston. Ralston purchased Cipriani’s property in 1864, which became the core of his National Register-listed ‘Belmont’ estate. Lying between San Francisco and San José, development in the area was slow, confined along the El Camino Real. The arrival of the San Francisco and San José Railroad in 1863 opened up the area to more uses, and a fledgling community grew around transportation services. Based on the official map of San Mateo County dated 1894 (refer to Appendix E), the project site made up a portion of the 141-acre lands of D.E. Bare.

By 1919, the portion of El Camino Real within Belmont was paved and shifted development of the community westward along this thoroughfare. The City of Belmont was incorporated in 1926. A period of expansion began in the City after the end of World War II. Many of the structures built during this period were constructed in Modernist styles, similar to the International Modernism style of the building on the project site.

International Modernism. The architectural style known as International Modernism began its early development in Europe during the 1920s, and later popularized by architects such as Walter Gropius, Mies van der Rohe, and Le Corbusier. The Lovell House in Los Angeles, designed by Austrian architect Richard Neutra, is often considered the earliest example of International Modernism in California (and the United States). Although first considered avant-garde, by the 1950s, this form of modernism was among the most dominant of architectural styles, particularly for commercial, institutional, and government buildings. International Modernism “...was a sleek, Machine Age style incorporating concrete, steel frames, white stucco, ribbon windows, cubic forms, open floors plans, and structures supported off the ground by pilotis (cylindrical reinforced concrete pillars). The style is characterized by minimal applied ornament; ornamentation is subservient to the design of the function of the building as a whole.”⁴

4.3.1.3 Regulatory Framework

The following describes the federal, State, and local regulatory and policy requirements for cultural resources that are relevant to the proposed project.

⁴ San Francisco Planning Department. 2011. *San Francisco Modern Architecture and Landscape Design*. January 12.

National Register of Historic Places. The National Register of Historic Places was first established in 1966, with major revisions in 1976. The register is set forth in 36 Code of Federal Regulations (CFR 60) which establishes the responsibilities of the State Historic Preservation Officers (SHPO), standards for their staffs and review boards, and describes the statewide survey and planning process for historic preservation. Within these regulations, guidelines are set forth concerning the National Register (36 CFR 60.6). In addition, further regulations are found in 36 CFR 63-66, 800, and Bulletin 15 which define procedures for determination of eligibility, identification of historic properties, recovery, reporting, and protection procedures. The National Register was established to recognize resources associated with the accomplishments of all peoples who have contributed to the country's history and heritage. Guidelines were designed for Federal and State agencies in nominating cultural resources to the National Register. These guidelines are based upon integrity and significance of the resource. Integrity applies to specific items such as location, design, setting, materials, workmanship, feeling, and association. Quality of significance in American history, architecture, archaeology, engineering, and culture is present in resources that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet at least one of the following criteria:

Criterion A: Associated with events that have made a significant contribution to broad patterns of our history;

Criterion B: Associated with the lives of persons significant in our past;

Criterion C: Embodies distinctive characteristics of type, period, or method of construction, or that represent the work of master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;

Criterion D: Have yielded, or are likely to yield, information important in prehistory or history.

Integrity is defined in the U.S. Department of the Interior National Park Service (NPS) 1982 Bulletin 15: How to Apply the National Register Criteria for Evaluation⁵ as: "...the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period. If a property retains the physical characteristics it possessed in the past then it has the capacity to convey association with historical patterns or persons, architectural or engineering design and technology, or information about a culture or peoples." There are also seven aspects of integrity which are used. These aspects are: (1) location; (2) design; (3) setting; (4) materials; (5) workmanship; (6) feeling; and (7) association.

⁵ U.S. Department of the Interior National Park Service (NPS). 1982. *Bulletin 15: How to Apply the National Register Criteria for Evaluation*.

California Environmental Quality Act (CEQA). CEQA applies to all discretionary projects undertaken or subject to approval by the State's public agencies (14 California Code of Regulations [CCR] Section 15002(i)). Under the provisions of CEQA, "A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (14 CCR Section 15064.5(b)).

CEQA Guidelines Section 15064.5(a) defines a "historical resource" as a resource that meets one or more of the following criteria:

- Listed in, or eligible for listing in, the California Register of Historical Resources (as defined under California Public Resources Code [PRC], Section 5024.1; 14 CCR Section 4850, et seq.);
- Listed in a local register of historical resources (as defined at PRC Section 5020.1(k));
- Identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or
- Determined to be a historical resource by a project's lead agency (14 CCR Section 15064.5(a)).

A historical resource consists of "Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California...Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing in the California Register of Historical Resources" (14 CCR Section 15064.5(a)(3)).

If an impact on a historical or archaeological resource is significant, CEQA requires feasible measures to minimize the impact (14 CCR Section 15126.4 (a)(1)). Mitigation of significant impacts must lessen or eliminate the physical impact that the project would have on the resource. Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties⁶ shall be considered mitigated to a level of a less-than-significant impact on the historical resource (14 CCR Section 15064.5(b)(3)). As noted in Section 15126.4(b)(2) of the CEQA Guidelines "In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment will occur." Finally, CEQA requires that all feasible mitigation be undertaken even if the mitigation does not reduce impacts to less-than-significant levels (14 CCR Section 15126.4(a)(1)).

California Register of Historical Resources (California Register). PRC Section 5024.1 established the California Register. The requirements for listing in the California Register, including the criterion for listing and having integrity, are similar to those of the National Register. Generally, a resource is considered by the lead agency to be "historically significant" if the resource meets the criteria for

⁶ U.S. Department of the Interior NPS. 2017. *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*.

listing in the California Register (14 CCR Section 15064.5(a)(3)). For a cultural resource to qualify for listing in the California Register, it must be significant under one or more of the following criteria:

- Criterion 1:** Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage,
- Criterion 2:** Associated with the lives of persons important in our past,
- Criterion 3:** Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values, or
- Criterion 4:** Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to being significant under one or more of these criteria, a resource must retain enough of its historic character and appearance to be recognizable as a historical resource and be able to convey the reasons for its significance (14 CCR Section 4852(c)). Generally, a cultural resource must be 50 years or older to be eligible for the California Register (14 CCR Section 4852(d)(2)).

In addition to meeting one or more of the significance criteria, a cultural resource must retain its historical integrity to be considered eligible for listing in the California Register. Historical integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance."⁷ The evaluation of integrity must be grounded in an understanding of a resource's physical features and its environment, and how these relate to its significance. There are seven aspects of integrity to consider when evaluating a cultural resource—location, design, setting, materials, workmanship, feeling, and association—that are described as follows:⁸

- 1) *Location* is the place where the historic property was constructed or the place where the historic event occurred. The actual location of a historic property, complemented by its setting, is particularly important in recapturing the sense of historic events and persons.
- 2) *Design* is the combination of elements that create the form, plan, space, structure, and style of a property. Design includes such elements as organization of space, proportion, scale, technology, ornamentation, and materials.
- 3) *Setting* is the physical environment of a historic property. Setting refers to the character of the place in which the property played its historical role. Physical features that constitute the setting of a historic property can be either natural or manmade, including topographic features, vegetation, paths or fences, or relationships between buildings and other features or open space.

⁷ California Office of Historic Preservation (OHP). n.d. California Office of Historic Preservation Technical Assistance Series #6. *California Register and National Register: A Comparison*. California Office of Historic Preservation. California Office of Historic Preservation, Sacramento.

⁸ U.S. Department of the Interior National Park Service (NPS). 1997. *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*. U.S. Department of the Interior, Washington, D.C.

- 4) *Materials* are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- 5) *Workmanship* is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. It is the evidence of the artisan's labor and skill in constructing or altering a building, structure, object, or site.
- 6) *Feeling* is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character.
- 7) *Association* is the direct link between an important historic event or person and a historic property.

Belmont 2035 General Plan. The following goals and policies from the City's General Plan related to cultural resources are relevant to the proposed project.

- **Goal 2.23:** Conserve designated historic and cultural sites and structures that help define Belmont's identity and character.
- **Policy 2.23-1:** Update the City's inventory of historic resources to ensure that historic resources are preserved and protected in Belmont.
- **Policy 2.23-4:** Encourage adaptive reuse of historic structures – preserving their original design and character – as an option for preserving sites that are threatened with demolition or degradation.

4.3.1.4 Project Site Historical Evaluations

The results of the HRE are summarized below according to the criteria for listing in the National Register (criteria A through D), the California Register (criteria 1 through 4), and the City's Historic Resource Inventory. Please note that the criteria for listing are described in Section 4.3.1.3.

Existing Building. The existing building within the project site was designed by San Francisco architect John S. Bolles and constructed in 1962 by C.M. Peletz Co., general contractors. Subsequent alterations include the partial conversion of the warehouse to cafeteria and office space, extensive interior remodeling, seismic repair of walls and roof, installation of plate glass windows on the front and southern façades, and the construction of a garage along the southern façade.

The first story of the front façade consists primarily of a long ribbon of aluminum framed plate glass windows, and the second story is dominated by textured concrete panels. Four sets of plate glass windows have been added on the second story along the southern side of the front façade. The north and south façades feature symmetrically arrayed glass blocks inset and recessed into the concrete walls, spaced between concrete pilasters on the lower story. The far-left side of the southern façade includes two loading bays. The rear façade of the structure consists of flat concrete walls interrupted by concrete pilasters, each of which includes a decorative "hook" near the top of the structure.

After construction, the building was operated as a warehouse and office uses for Allyn & Bacon Inc., an education publishing company with an emphasis in the Social Sciences. Therefore, its use as a warehouse and office has remained consistent from the period of its original construction, although the nature of the materials housed, and the business conducted have varied from tenant to tenant. On January 1, 1981, the Otario Corporation purchased the building and later sold it to the Electro Services Manufacturing Corporation on February 29, 1988. Since then, the building's subsequent owners included various technological firms: Interference Control Technologies, Inc., Electro Services Manufacturing Corporation, Signet Productions, Davis Commercial LLC, and 2 Davis Court LLC (the current owners).

National Register of Historic Places. Criteria A through D for listing on the National Register are discussed below.

Criterion A. As discussed above, the existing building is not associated with significant historic events or persons and background research did not identify an association with the existing building and specific persons important in our past.

Criterion B. See response to Criterion A. For these reasons, the existing building is not significant under National Register Criterion B.

Criterion C. As discussed above, although the existing building is an example of the International Modernist Style, it is not a noteworthy example of this style. Additionally, while architect John S. Bolles is an architect of some regional importance, the existing building does not appear to be a significant example of his work. For these reasons, the existing building is not significant under National Register Criterion C.

Criterion D. As discussed above, information about the International Modernist style and construction methods, as represented by the existing building, can be obtained from other widely available sources on this and other common architectural styles. The building is unlikely to yield information important to the history of Belmont, San Mateo County, or California. For these reasons, the existing building is not significant under National Register Criterion D.

California Register of Historical Resources. Criteria 1 through 4 for listing on the California Register are discussed below.

Criterion 1. The existing building on the project site is not associated with any significant events that have made a significant contribution to the broad patterns of California's history and cultural heritage. For this reason, the existing building is not significant under California Register Criterion 1.

Criterion 2. Background research did not identify an association with the existing building and specific persons important in our past. Background research did not find an association with the life of any historical figure directly associated with the building. For these reasons, the existing building is not significant under California Register Criterion 2.

Criterion 3. Designed by John S. Bolles, the existing building on the project site is an example of the International Modernist style of architecture; however, it is not a particularly noteworthy example of this style.

John S. Bolles was the son of architect Edward Grosvenor Bolles and worked with his father on several projects including the Temple of Religion and the Christian Science Monitor Building for the Golden Gate International Exposition held on Treasure Island in 1939. After his father's death in 1939, Bolles collaborated with Joseph Francis Ward, operating as Ward & Bolles from 1944 to 1954. Bolles established his own firm as John S. Bolles Associates in 1954 and was active until 1975. Bolles is an architect of some regional significance; his prime project was Candlestick Park. He also designed the IBM complex in San José, 990 Pacific Senior Housing in San Francisco, and the Gallo Wine Headquarters in Modesto. While Bolles is an architect of some regional significance, the existing building does not appear to be a significant example of his work. For these reasons, the existing building is not significant under California Register Criterion 3.

Criterion 4. This criterion is typically used to evaluate the potential for archaeological deposits to contain information important in understanding past lifeways. Its application to architecture is less common in eligibility assessments due to the prevalence of popular publications that thoroughly document the form, materials, and design of a building type. Information about the International Modernist style and construction methods, as represented by the existing building, can be obtained from other widely available sources on this and other common architectural styles. The building is unlikely to yield information important to the history of Belmont, San Mateo County, or California. For these reasons, the existing building is not significant under California Register Criterion 4.

City of Belmont Historical Resource Inventory. The Landmark and Historic Resource criteria for listing on the City's Historic Resource Inventory are discussed below.

Landmark. *Is the building or structure the first, last, only or most significance of a type in a region, over 50 years old, possessing tangible elements of important periods, persons, architecture, or use?*

The existing building was constructed in 1962 and is therefore more than 50 years old. However, it is not the first, last, only, or most significant type of the International Modernist style in the region. Other more significant examples of the International Modernist style in San Mateo County include the Woodmont Apartments in Belmont, the White Oaks Elementary School in San Carlos, the Hoffman House in Hillsborough, and the San Mateo County Hall of Justice in Redwood City. For these reasons, the existing building is not significant under the Landmark criterion.

Historic Resource. *Is the building or structure over 50 years old and representative of a historic period or building type, but doesn't meet landmark standard?*

As described above, the existing building is over 50 years old, but does not meet the landmark standard. The existing building is representative of the International Modernist style, as it appears to retain much of its character from the time of its construction despite modifications

that have been made. For these reasons, the existing building is significant under the Historic Resource criterion.

4.3.2 Impacts and Mitigation Measures

As described above, the presence of and potential for significant cultural resources were determined by assessing previously documented cultural resources through archival background research and an evaluation of cultural resources in the project site to determine their eligibility for listing in the California Register, the National Register, and the City's Historical Resource Inventory. These findings were then compared to the CEQA Guidelines' cultural resource types identified below to determine if the project would have the potential to result in significant impacts to those types of cultural resources.

The following discussion describes the project's potential impacts on historical resources. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact is significant. The latter part of this section presents the impacts associated with the proposed project and identifies mitigation measures, as appropriate.

4.3.2.1 Significance Criteria

The proposed project would have a significant impact on cultural resources if it would:

- 1) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

For the project to have "a substantial adverse change" on a historical resource, it would have to demolish, destroy, relocate, or alter the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (see CEQA Guidelines Section 15064.5(b)).

Generally, for purposes of CEQA, the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register or an officially recognized local register of historical resources, or its identification in a historical resources survey meeting the requirements of PRC Section 5024.1(g).

4.3.2.2 Project Impacts

The following discussion describes the project's potential impacts to cultural resources according to the significance criteria described above.

1) Cause a substantial adverse change in the significance of a historical resource

Impacts to historical resources could occur from project implementation. Potential impacts to historical resources are described under Impact CUL-1.

Impact CUL-1: Demolition of the existing building on the project site would have a substantial adverse change on a historical resource, as defined in CEQA Guidelines Section 15064.5. (S)

Constructed in 1962, the existing building on the project site was evaluated for its eligibility for listing in the California Register, the National Register, and the City's Historical Resource Inventory. The building does not appear eligible for inclusion in the National Register or California Register; however, it appears eligible for inclusion in the City's Historical Resource Inventory under the Historic Resource criterion. Under the Historic Resource criterion, the building is more than 50 years old and, despite subsequent alterations, appears to retain much of its original International Modernist architectural style.

Due to its eligibility for listing in the City's Historical Resources Inventory, the existing building qualifies as a historical resource under CEQA (CEQA Guidelines Section 15064.5(a)(3)). Its demolition to allow for construction of the proposed building would result in a substantial adverse change under CEQA. Mitigation Measures CUL-1a, CUL-1b, and CUL-1c would minimize this significant impact; however, the impact would remain significant and unavoidable even after mitigations are implemented.

Mitigation Measure CUL-1a

Prior to issuance of a demolition permit, the project sponsor shall retain a City-approved historian or architectural historian meeting the Secretary of the Interior's Qualifications Standards (36 CFR Part 61)⁹ to prepare a historical context report of the existing building at 2 Davis Drive. The report shall generally follow a Level II or higher documentation standard as described in the National Park Service's Historic American Building Survey (HABS) guidance and shall generally follow the Outline Format as presented in the HABS History Guidelines¹⁰ issued by the National Park Service. The report shall provide a detailed description of the building and its historical significance within the context of International Modernist architecture and the historic context of the City of Belmont. Photographs and scaled architectural drawings of the building, or archival-quality copies of the original building plans, if available, shall accompany the report (as specified in Mitigation Measures CUL-1b and CUL-1c). The report and associated documentation shall be offered to the appropriate historical archives, including, but not limited to, the Belmont Historical Society and the San Mateo County History Museum. Based on the curation requirements of the receiving institution, either archival hard copies and/or electronic copies of the report and associated documentation shall be offered to the Belmont Historical Society, the San Mateo County Historical Association, and the Northwest Information Center at Sonoma State

⁹ U.S. Department of the Interior National Park Service (NPS). n.d. *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines [As Amended and Annotated]*. Professional Qualifications Standards. Website: https://www.nps.gov/history/local-law/arch_stnds_9.htm (accessed September 2021).

¹⁰ U.S. Department of the Interior National Park Service (NPS). n.d. *Historic American Buildings Survey Guidelines for Historical Reports*. Website: <https://www.nps.gov/hdp/standards/HABS/HABSHistoryGuidelines.pdf> (accessed September 2021).

University. The project sponsor shall be responsible for ensuring the report, photo-documentation (CUL-1b), and scaled architectural drawings (CUL-1c) are available to the public via the internet for a minimum of 5 years.

Mitigation Measure CUL-1b

The project sponsor shall retain a professional photographer to complete photo-documentation of the existing building at 2 Davis Drive prior to project construction to provide additional descriptive data and a permanent visual record of the resource. The photographer must be familiar with large format architectural photography and have prior demonstrable experience photographing historic buildings and structures. The photo-documentation shall generally follow the National Park Service's Historic American Building Survey/Historic American Engineering Record/Historic American Landscapes Survey (HABS/HAER/HALS) Photography Guidelines.¹¹ Photograph views for the data set shall include contextual views; views of each side of the building; interior views, including any original interior features, where possible; oblique views of the building; and detail views of character-defining features identified in the Historical Resource Evaluation report prepared for the proposed project.

Mitigation Measure CUL-1c

Existing, scaled historic drawings of the existing building at 2 Davis Drive, if available, shall be reproduced on archival-quality paper and included with the report (Mitigation Measure CUL-1a). In the absence of adequate archival drawings, the project sponsor's architect, meeting the Secretary of the Interior's Professional Qualification Standards for Historic Architecture (36 CFR Part 61)¹², shall produce full-size measured drawings of the building's plan and significant exterior elevations. (SU)

As previously discussed, demolition of the existing building to allow for construction of the proposed project would result in a substantial adverse change under CEQA. While implementing Mitigation Measures CUL-1a, CUL-1b, and CUL-1c minimizes this significant impact, as noted in Section 15126.4(b)(2) of the CEQA Guidelines "In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment will occur." Therefore, this impact would remain significant and unavoidable even after mitigations are implemented.

¹¹ U.S. Department of the Interior National Park Service (NPS). 2011. *Heritage Documentation Programs, HABS/HAER/HALS Photography Guidelines*, November 2011 (updated June 2015). Website: <https://www.nps.gov/hdp/standards/PhotoGuidelines.pdf> (accessed September 2021).

¹² U.S. Department of the Interior National Park Service (NPS). n.d. *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. Website: https://www.nps.gov/history/local-law/arch_stnds_9.htm (accessed September 2021).

4.3.2.3 Cumulative Impacts

For cultural resources, the scope for assessing cumulative impacts encompasses other past, current, or probable future projects under review by the City. The proposed project would have a significant effect on the environment if it would contribute to a significant cumulative impact on cultural resources.

Aside from the proposed project, there are no past, current, or reasonably foreseeable future projects under review by the City that may impact architectural historical resources. As such, the project is not anticipated to contribute to a cumulative impact on local architectural historical resources.

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

4.4 TRANSPORTATION

This section is based on the Transportation Impact Analysis (TIA) conducted for the proposed project and included as Appendix F of this EIR.¹ 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.

Up until July 1, 2020, roadway congestion or level of service (LOS) was used as the primary metric for planning and environmental review purposes in the City of Belmont. 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 the California Environmental Quality Act (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. 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 the 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 only legally acceptable threshold for transportation-related environmental impacts pursuant to CEQA.

In accordance with SB 743, for purposes of determining potentially significant environmental impacts related to transportation, this EIR will focus only on VMT as the threshold of significance. However, because LOS is still used for local planning purposes, that information is summarized in the Non-CEQA Analysis at the end of this section and in the TIA included as Appendix F.

The information in this chapter is based on the TIA and the identification of mitigation, if any, provided in the TIA. The analyses were conducted in accordance with the current standards and methodologies required by law and set forth by the City of Belmont⁴ and the City/County Association of Governments of San Mateo County (C/CAG). The TIA includes the level of service analysis summary, turning movement volumes, intersection lane configurations, and intersection levels of service.

¹ Kimley-Horn. 2023. *Transportation Impact Analysis. 2 Davis Drive*. April.

² Governor's 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 Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 18. Website: opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf (accessed February 7, 2019).

⁴ City of Belmont. 2014. *City of Belmont Guidelines for Traffic Impact Studies*. August.

4.4.1 Setting

This section describes the existing transportation conditions, including the roadway network, bicycle facilities, pedestrian facilities, and transit service, within the study area. The applicable regulatory framework is also described.

4.4.1.1 Existing Transportation and Circulation System

Roadway Network. Arterials, major collectors, collectors, and local streets run through the project area. Regional access to the project site is provided via Interstate 280 (I-280) and U.S. Highway 101 (US 101). Descriptions of roadways in the project area are provided below using roadway classifications defined in the Belmont General Plan Circulation Element followed by the Federal Highway Administration (FHWA) category.⁵

- **Alameda de las Pulgas** is a two-lane, north-south arterial serving residential areas north and south of Ralston Avenue. South of Ralston Avenue, Alameda del Las Pulgas provides access to Carlmont High School, Tierra Linda Middle School, and San Carlos Charter Learning Center. Alameda de las Pulgas has bike lanes south of Carlmont Drive. The posted speed limit on Alameda de las Pulgas is 25 miles per hour (mph) north of Ralston Avenue and 30 mph south of Ralston Avenue.
- **Belmont Canyon Road** is a two-lane local street serving residential areas north of Ralston Avenue. The posted speed limit is 25 mph.
- **Chula Vista Drive** is a two-lane major collector serving residential areas south of Ralston Avenue. The posted speed limit is 25 mph.
- **Cipriani Boulevard** is a two-lane major collector serving residential areas north and south of Ralston Avenue. The posted speed limit is 25 mph.
- **Davis Drive** is a two-lane local roadway serving several office buildings south of Ralston Avenue and Crystal Springs Upland Middle School. The roadway has no outlet but contains two cul-de-sac turnaround points. A sidewalk currently exists along the eastern side of Davis Drive connecting Ralston Avenue to the innermost cul-de-sac for pedestrian access. The speed limit is 25 mph.
- **El Camino Real (SR 82)** is a four-lane divided north-south arterial road that runs parallel to US 101. The roadway mostly serves commercial uses within the study area. The Belmont Caltrain station is located at the northeast corner of the El Camino Real and Ralston Avenue intersection. The posted speed limit is 35 mph.
- **Hallmark Drive** is a two-lane, north-south major collector roadway servicing residential areas and Fox Elementary School south of Ralston Avenue. The posted speed limit is 30 mph.

⁵ City of Belmont. 2017a. *City of Belmont 2035 General Plan, Circulation Element*. November 14.

- **Notre Dame Avenue** is a two-lane, north-south major collector serving residential areas north of Ralston Avenue. Notre Dame Avenue also provides access to Notre Dame Elementary School. The posted speed limit is 25 mph.
- **Notre Dame University Road** is a two-lane local street, which provides access to Notre Dame de Namur University. The posted speed limit is 25 mph.
- **Ralston Avenue** is a four-lane, east-west arterial connecting State Route 92 (SR 92) in the west to US 101 in the east. Ralston Avenue has a two-way left turn lane between Alameda de las Pulgas and South Road. The roadway serves residential areas west of Sixth Avenue and commercial areas east of Sixth Avenue. Ralston Middle School is located along the south frontage of Ralston Avenue between Davis Drive and Tahoe Drive. Between Alameda de las Pulgas and SR 92, there is a steep uphill grade in the westbound direction. The posted speed limit on Ralston Avenue is 30 mph east of Alameda de las Pulgas and 40 mph to the west.
- **Sixth Avenue** is a two-lane collector street, serving residential areas north of Ralston Avenue and City offices and commercial areas south of Ralston Avenue. The posted speed limit is 25 mph.
- **South Road** is a two-lane local street, serving residential areas north of Ralston Avenue. The posted speed limit is 25 mph.
- **Tahoe Drive** is a two-lane local street serving residential areas south of Ralston Avenue and is west of Ralston Middle School. The posted speed limit is 25 mph.

Bicycle Facilities. The City's existing bicycle facilities are classified according to the California Department of Transportation (Caltrans) Highway Design Manual as identified in the Circulation Element of the City's General Plan:

- **Class I (Multi-Use Path)** – A completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II (Bike Lane)** – A striped and signed lane for one-way bike travel on a street or highway.
- **Class III (Bike Route)** – Signage only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV (Separated Bikeway/Cycle Track)** – A bikeway for the exclusive use of bicycles and requires physical separation such as grade separations, flexible posts, inflexible physical barriers, or on-street parking between the bikeway and through vehicular traffic.

Class I bike paths located within the project study area include the Lake Road Trail, the Ralston School Trail, and the Ralston Avenue Bike Trail. The Lake Road Trail is located south of Ralston Avenue and runs east-west. The trail begins at Hallmark Drive and terminates at Lyall Way. The Ralston School Trail begins south of Ralston Middle School and continues south until it connects with the Lake Road Trail. The Ralston Avenue Bike Trail, located adjacent to SR 92, begins south of Ralston Avenue and runs south connecting to a Class II bike lane on Canada Road.

Class II bike lanes are located within the project study area on Ralston Avenue and on Alameda de las Pulgas. On Ralston Avenue, bike lanes are located on the north side of the roadway between Pullman Avenue and Cipriani Boulevard and on both sides of the roadway between Villa Avenue and South Road with several missing segments on the north side. On Alameda de las Pulgas, bike lanes are located on both sides of the roadway between Carlmont Drive and Cranfield Avenue.

Class III bike routes are located within the project study area on Cipriani Boulevard, Notre Dame Avenue, and Ralston Avenue. On Cipriani Boulevard, bike routes are located between Prindle Road and Alameda Del Las Pulgas. On Notre Dame Avenue, bike routes begin at Ralston Avenue and terminate at Abor Avenue. On Ralston Avenue, bike routes are located between El Camino Real and South Road.

Pedestrian Facilities. Pedestrian facilities include sidewalks, crosswalks, curb ramps, curb extensions, and various streetscape amenities such as lighting and benches. Sidewalks and crosswalks are mostly provided throughout the study area in Belmont to allow for pedestrians to access nearby transit stops, residential uses, and commercial uses. However, there are gaps in the pedestrian facilities along the north side of Ralston Avenue between Hallmark Drive and Davis Drive.

Transit Service and Facilities. The San Mateo County Transit District (SamTrans) provides bus transit lines in the project area. Rail transit service is provided by Caltrain. A summary of services in the vicinity of the project site is provided in Table 4.4.A.

SamTrans provides transit services within Belmont and San Mateo County. Within the vicinity of the project site, there are four transit lines that operate along Ralston Avenue.

- **Route 60** operates between Ralston Middle School and the intersection of Bridge Parkway and Bowsprit Drive, with an interim stop at Carlmont High School. The route runs along Ralston Avenue, Cipriani Boulevard, Notre Dame Avenue, Alameda de las Pulgas, and El Camino Real within the study area. The route operates only on Belmont-Redwood Shores Elementary School District school days from 6:52 a.m. to 7:58 a.m. and from 3:13 p.m. to 4:03 p.m. on Mondays, Tuesdays, Thursdays, and Fridays and from 6:52 a.m. to 7:58 a.m. and from 12:36 p.m. to 1:18 p.m. on Wednesdays. The nearest bus stop to the project site is at the intersection of Ralston Avenue and Davis Drive.
- **Route 67** operates between Ralston Middle School and the intersection of Bridge Parkway and Bowsprit Drive. The route runs along Ralston Avenue within the study area. The route operates only on Belmont-Redwood Shores Elementary School District school days from 7:03 a.m. to 7:49 a.m. on Mondays through Fridays, from 12:44 p.m. to 1:25 p.m. on Wednesdays, and from 3:17 p.m. to 3:58 p.m. on Mondays, Tuesdays, Thursdays and Fridays. The nearest bus stop to the project site is at the intersection of Ralston Avenue and Davis Drive.

Table 4.4.A: Existing Transit Service

Route	From	To	Weekdays				Weekends	
			Operating Hours ¹	Headway (minutes) ²		Operating Hours	Headway (minutes)	
				Peak	Mid-day			
SamTrans – Davis Drive and Ralston Avenue								
60	Ralston Middle School	Bridge Parkway and Bowsprit Drive	6:50 a.m. – 8:00 a.m. 12:35 p.m. – 3:20 p.m. ³	--	--	No weekend service	--	
67	Ralston Middle School	Bridge Parkway and Bowsprit Drive	7:00 a.m. – 7:50 a.m. 12:45 p.m. – 4:00 p.m. ³	--	--	No weekend service	--	
68	Ralston Middle School	Wessex Way and Hiller Street	7:55 a.m. – 8:00 a.m. 12:35 a.m. – 2:25 p.m. ³	--	--	No weekend service	--	
260	San Carlos Caltrain Station	College of San Mateo	6:20 a.m. – 6:50 p.m.	60	60	8:40 a.m. to 8:00 p.m.	60	
Caltrain – Belmont Station								
Northbound			5:20 a.m. to 12:05 a.m. ⁴	15-60	30-60	8:10 a.m. to 12:05 a.m.	60-120	
Southbound			5:35 a.m. to 12:50 a.m. ⁴	15-60	30-60	9:15 a.m. to 12:50 a.m.	30-120	

Source: Kimley-Horn (2023).

¹ Operating Hours rounded to the nearest 5 minutes for weekdays and weekends.

² Headways are defined as the time between transit vehicles on the same route. Listed headways are the modes (i.e., most common) of the headways and rounded to the nearest 5 minutes.

³ School route that consists of 2-3 buses during morning drop-off and 2-3 buses during afternoon dismissal. These routes have a different schedule on Wednesdays.

⁴ Last train leaves the station the following day.

- **Route 68** operates between Ralston Middle School and Wessex Way and Hiller Street. The route runs along Ralston Avenue, Cipriani Boulevard, and Notre Dame Avenue within the study area. The route operates only on Belmont-Redwood Shores Elementary School District school days from 7:29 a.m. to 8:00 a.m. on Mondays through Fridays, from 12:37 p.m. to 1:08 p.m. on Wednesdays and from 3:15 p.m. to 3:48 p.m. on Mondays through Fridays. The nearest bus stop to the project site is at the intersection of Ralston Avenue and Davis Drive.
- **Route 260** operates between the San Carlos Caltrain station and the College of San Mateo. The route runs along Ralston Avenue within the study area. The route operates on weekdays from 6:21 a.m. to 6:49 p.m. on a frequency of 60-minute headways. On Saturday, the route operates from 8:43 a.m. to 8:07 p.m. on a frequency of 60-minute headways. The nearest bus stop to the project site is at the intersection of Ralston Avenue and Davis Drive.

Caltrain provides rail transit services between San Jose and San Francisco. In Belmont, the Belmont Caltrain station is located at the intersection of El Camino Real and Ralston Avenue. During the AM peak, northbound trains to the San Francisco Caltrain Station include the two local (107 and 109) and two limited-stop (301 and 303) trains, and southbound trains to Diridon Station in San Jose include two local (106 and 108) and two limited-stop (302 and 304) trains. During the PM peak, northbound trains include two local (125 and 127) and two limited-stop (309 and 311) trains and the PM peak southbound trains include two local (124 and 126) and three limited-stop (308, 310, and 312) trains. Riders on Caltrain may transfer to SamTrans Route 260.

4.4.1.2 Analysis Scope and Methodology

As previously described, SB 743 required the OPR to establish a new metric for identifying and mitigating transportation impacts pursuant to 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. OPR identified VMT as the required CEQA transportation metric and beginning July 1, 2020, VMT (not LOS) is the only legally acceptable threshold for transportation-related environmental impacts pursuant to CEQA.

On February 23, 2021 the Belmont City Council approved VMT thresholds for use in evaluating potential transportation impacts within the city. Therefore, this analysis evaluates VMT impacts using local VMT thresholds for purposes of determining potentially significant environmental impacts. Consistent with the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA, 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 probably future projects."⁶ 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.

Vehicle miles traveled per person (or per capita) is a measurement of the amount and distance that a resident, employee, or visitor drives, 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 higher density, a mix of land uses, and numerous ways of travel. Therefore, low-density development without a diverse mix of land uses and transportation options typically generates more VMT compared to a similarly sized development located in an area with a greater 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 more

⁶ Governor's Office of Planning and Research (OPR). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 18. Website: opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf (accessed February 7, 2019).

complementary 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.

For office and industrial uses, the City/County Association of Governments of San Mateo County (C/CAG) VMT Estimation Tool estimate average VMT per employees based on project location, proposed land use, project characteristics, multimodal infrastructure, parking information, and transportation demand management (TDM) program elements. The C/CAG VMT Estimation Tool provides estimates based on data provided in the C/CAG-Valley Transportation Authority (VTA) travel forecasting model. The proposed project would include office uses, which is a land use that is present within the Traffic Analysis Zone (TAZ) that contains the project site, and therefore the C/CAG VMT Estimation Tool is capable of estimate the VMT efficiency rate for the proposed project.⁷

Table 4.4.B shows the existing average daily VMT per employee within the San Mateo County region (regional average) as well as the City's VMT threshold, which is 15 percent below the regional average. The City's established thresholds are used to evaluate project VMT impacts for office uses to determine significance in subsection 4.4.2.4.

Table 4.4.B: C/CAG VMT per Employee Estimates

Land Use	San Mateo County Average	15 Percent Below County Average	Without Project	With Project	Maximum Possible Reduction
Office (per employee)	17.21	14.63	24.60	19.70	19.70

Source: *Transportation Impact Analysis, 2 Davis Drive* (Kimley-Horn 2023).

4.4.1.3 Regulatory Framework

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

Federal Regulations. This section summarizes applicable Federal regulations guiding transportation planning in Belmont.

Federal Highway Administration. The 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 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 U.S. Access Board, an independent Federal agency created in 1973 to ensure accessibility for people with disabilities,

⁷ Fehr & Peers. 2021. *C/CAG Estimation Tool: Quick Start Guide*. November 12.

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 Belmont.

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 the Preparation of Traffic Impact Studies, 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.⁸

Senate Bill 375. As a means to achieve the statewide emission reduction goals set by Assembly Bill (AB) 32 (“The California Global Warming Solutions Act of 2006”), SB 375 (“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 reduction tied to land use; (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 use in Belmont is Plan Bay Area 2040.

Senate Bill 743. SB 743 (CEQA Section 21099(b)(1)) requires that OPR 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.

⁸ California Department of Transportation (Caltrans). 2002b. *Guide for the Preparation of Traffic Impact Studies*. December.

In January 2016, OPR published for public review and comment a Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA recommending that transportation impacts for projects be measured using a VMT metric.⁹ 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 the Technical Advisory on Evaluating Transportation Impacts in CEQA, which contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures.¹⁰

Regional Regulations. This section summarizes applicable regional regulations guiding transportation planning in Belmont.

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 an SCS as part of a Regional Transportation Plan. This strategy integrates transportation, land use and housing to meet greenhouse gas reduction targets set by the CARB. 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 MTC and the Association of Bay Area Governments adopted Plan Bay Area 2050 in October 2021. To meet the GHG reduction targets, the plan identifies four Growth Geographies where future growth in housing and jobs should be focused: priority development areas (PDAs), priority production areas (PPAs), transit-rich areas (TRAs), and high-resource areas (HRAs). The agencies estimate more than 80 percent of housing growth would occur within TRAs and nearly 30 percent would be within HRAs, and more than 60 percent of job growth would be within walking distance of high-quality transit between 2015 and 2050.¹¹ The project site is not within a Growth Geography.

⁹ Governor's 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.

¹⁰ Governor's Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 18. Website: opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf (accessed February 7, 2019).

¹¹ Note: Growth projections do not sum to 100 percent because PDAs, TRAs, and HRAs are not mutually exclusive.

City/County Association of Governments of San Mateo 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 level of service (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. C/CAG has a countywide threshold of 100 added peak-hour trips when determining if any CMP roadway facilities should be included as part of the TIA.

San Mateo County Comprehensive Bicycle and Pedestrian Plan. The San Mateo County Comprehensive Bicycle and Pedestrian Plan was developed by the City/County Association of Governments of San Mateo County 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 Belmont. This section summarizes applicable City of Belmont regulations guiding transportation planning in the City.

Belmont 2035 General Plan. Transportation-related policies are included in the Circulation Element of the Belmont 2035 General Plan. The Circulation Element provides the goals, policies, and actions to develop and maintain a balanced, multimodal transportation system in the City of Belmont, consisting of effective and contextually appropriate facilities that enhance mobility for

automobiles, pedestrians, bicycles, and public transit. The transportation goals and policies that relate to the proposed project include:

Goal 3.1: Provide for the safe and efficient movement of people and vehicles within and through the community that fosters accessibility and connectivity; accommodates a mixture of automobiles, transit, bicyclists, and pedestrians; and encourages higher transit ridership.

- **Policy 3.1-5:** Require new development and redevelopment projects to construct or pay their fair share toward improvements for all travel modes to provide and enhance connectivity to existing transportation facilities.
- **Policy 3.1-7:** Create an accessible circulation network that is consistent with guidelines established by the Americans with Disabilities Act (ADA), allowing mobility-impaired users, such as the disabled and seniors, to safely and effectively travel within and beyond the city.

Goal 3.2: Reduce dependence on the private automobile for travel and achieve a reduction in VMT per capita of 15 percent by year 2035, consistent with ABAG's Plan Bay Area VMT reduction targets.

- **Policy 3.2-1:** Promote energy efficiency and accommodate new and improved technology, such as alternative fuel vehicles, in meeting transportation needs.

Goal 3.4: Accommodate modes of transportation on routes that are designed within the context of the surrounding area to provide for the enjoyment and safety of the individual and to cause minimum interference and appropriate compatibility with adjacent uses of land.

- **Policy 3.4-1:** Maintain and improve existing transportation facilities to ensure safety and reasonable convenience of use. Additional facilities shall be limited to local access roadways for improved connectivity only in areas of dense development, such as the Belmont Village PDA.
- **Policy 3.4-2:** Provide road improvement standards, including rights-of-way, pavement condition, pavement width, and grade, that account for reasonable safety and recognize variations in local physical conditions.

Goal 3.5: Promote, provide, and maintain a safe and convenient pedestrian and bicycle system of hiking and riding trails, pedestrian paths, bicycle paths and lanes to: promote active transportation; reduce dependence on automobiles; provide recreation; furnish easy access to trails; permit safe, pleasant travel among parts of the community; connect local areas and destinations within the city through trails and paths and regional trail and path systems; and create opportunities for nature and conservation education.

- **Policy 3.5-1:** Preserve and maintain Belmont's existing sidewalks and pedestrian paths.
- **Policy 3.5-2:** Require public sidewalks in conjunction with all new non-residential development.

- **Policy 3.5-14:** Prioritize transportation improvements that improve pedestrian and bicycle safety for students traveling to and from schools.
- **Policy 3.5-15:** Ensure that new development projects provide bicycle and pedestrian improvements to facilitate the implementation of adopted Safe Routes to School plans.
- **Policy 3.5-17:** Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility and use universal design concepts.

Goal 3.6: Promote Transportation Demand Management Programs and encourage increased transit use through convenient, safe, efficient, and cost-effective services.

- **Policy 3.6-2:** Encourage (or require, for large employment centers with high projected trip generation rates) businesses to implement Transportation Demand Management Programs with an emphasis on connecting and sharing the service with other businesses in the city and region, such as commuter buses, carpools, and other forms of private transit, especially in conjunction with major new industrial or commercial development.

Ralston Corridor Study and Improvement Plans. The Ralston Corridor Study and Improvement Plan (RCS) was approved by the City Council on August 26, 2014, and is intended to address existing and future impacts and constraints along the Ralston Avenue corridor. The RCS requires that any determination the City makes regarding appropriate traffic mitigation measures for a development project along the Ralston Avenue corridor be consistent with the RCS. The following is a summary of the preferred improvements within the study area:

- **Pedestrian Crossing Improvements:**
 - Improve crossing times at signalized intersections
 - Improve crossing visibility
- **Sidewalk Improvements:**
 - Sidewalk rehabilitation
 - Widen sidewalk on south side of Ralston Avenue between El Camino Real and Sixth Avenue and between Pullman Avenue and Ralston Middle School Exit Driveway
- **Bikeway Improvements:**
 - Install bicycle lane between Twin Pines Lane and Alameda de las Pulgas
 - Install wayfinding signage for bicycle routes
- **Intersection Improvements:**
 - Update signal timing and coordination
 - Construct roundabout at Notre Dame de Namur University Driveway
 - Construct traffic signal at South Road, Notre Dame Avenue, and Tahoe Drive

4.4.2 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. The latter part of this section presented the impacts associated with implementation of the proposed project and identifies mitigation measures, as appropriate.

4.4.2.1 Significance Criteria

The proposed project would result in a significant impact related to transportation if it would:

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

4.4.2.2 Proposed Project

As described in Chapter 3.0, Project Description, of this EIR, development of the proposed project would result in the demolition of the existing warehouse building on the project site and construction of an approximately 77,525-gross-square-foot, four-story office/research and development building with three levels of office space above one level of enclosed at-grade parking. The parking garage would provide 62 striped parking space, with a valet service that would allow for an additional 37 parking spaces, for a total of 99. An additional 153 striped surface parking spaces would be provided, with valet service resulting in an additional 16 space, resulting in a total of 169 surface parking spaces. In total, the proposed project would provide 268 parking spaces. A total of 18 bicycle parking spaces would be provided, consisting of 16 long-term spaces in the parking garage and 2 short-term spaces outside of the main lobby.

Both the parking garage and surface parking spaces would be accessible via the existing driveway at the southeast corner of the project site along Davis Drive. The proposed project would also include the alteration of Ralston Avenue in the eastbound direction to include a right-turn lane at the Davis Drive intersection. This would be achieved by dedicating an approximately 1,226-square-foot section of the northern boundary of the project site to the City.

Trip Generation. The vehicle trip generation estimates for the proposed project and the existing use on the site were calculated using the trip generation rates from the most recent ITE Trip Generation Manual (11th Edition, 2021).¹² The land use categories for Warehousing (ITE Code 150) and General Office Building (ITE Code 710) were applied to this analysis. Because the site is occupied by an existing active warehouse use, trip credits were applied to account for the removal of the existing

¹² Institute of Transportation Engineers (ITE). 2021. *Trip Generation Manual*, 11th Edition.

approximately 21,000 square feet of space. Additionally, a 15 percent trip reduction was applied to the proposed office trips to comply with the City's TDM requirements.

As shown in Table 4.4.C, application of the trip generation rates and trip reductions would result in a net project-generated increase in the number of daily AM and PM peak-hour vehicle trips. The proposed project would generate 718 new daily vehicle trips, 110 net new AM peak-hour vehicle trips (97 inbound trips and 13 outbound trips), and 110 net new PM peak-hour vehicle trips (19 inbound trips and 91 outbound trips).

Table 4.4.C: Proposed Office Building Vehicle Trip Generation Estimates

Land Use (ITE Code)	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Existing Warehousing (150)	21,000 sf	72	3	1	4	1	3	4
Proposed General Office Building (710)	77,525 sf	930	118	16	134	23	111	134
TDM Reduction (15%)		-140	-18	-2	-20	-3	-17	-20
Total Project Trips		790	100	14	114	20	94	114
Net New Trips		718	97	13	110	19	91	110

Source: *Transportation Impact Analysis, 2 Davis Drive* (Kimley-Horn 2023).

ITE = Institute of Transportation Engineers.

sf = square foot/feet

It is assumed that the majority of the trips generated by the proposed fire station are expected to occur outside of the AM and PM peak periods. In 2019, the number of personnel at each fire station varied from 3 to 8 people. Taking a conservative approach, it was assumed that 8 personnel would be stationed at the proposed fire station, which would equate to 16 trips (8 inbound and 8 outbound trips) when shifts changes occur. In 2019, the two fire stations in Belmont responded to a total of 2,706 calls for service. It is assumed that the future fire station would handle a third of the existing response or 902 responses, which equate to roughly 3 emergency response calls per day (or 6 round trips). To be conservative, the number of emergency response call trips was rounded up to 10 daily trips. Lastly, it was assumed that 10 non-emergency trips would be made during the day. These trips would include the trips for getting groceries, and attending school educational events or meetings, etc. Overall, a total of 36 daily trips were assumed for the fire station.

Proposed Transportation Demand Management Program. The project sponsor would implement the proposed 2 Davis Drive TDM Plan¹³ as part of the proposed project in an effort to reduce project-generated vehicle trips and encourage travel by other modes. On November 10, 2020, the Belmont City Council adopted a Citywide TDM program. The City's TDM program is a point-based system in which the minimum amount of points required would result in achieving the City's goal of a 15 percent reduction in trips compared to the Countywide baseline. The required number of points is based on the size and land use of an individual project. Based on the City's Transportation Demand Management Program and Guidebook, the TDM program for the proposed project would need to achieve a minimum of 18 points.

¹³ Kimley-Horn. 2022. *2 Davis Drive Transportation Demand Management (TDM) Plan*. April.

C/CAG's Transportation Demand Management Policy Implementation Guide requires projects that generate at least 100 average daily trips (ADT) to comply with C/CAG's TDM policy and must complete a TDM Checklist. As shown in Table 4.4.C, the proposed project would be expected to generate 930 daily trips,¹⁴ and therefore would be required to comply with the requirements for a Large Non-Residential project, which has a minimum trip reduction requirement of 35 percent below the baseline ADT, or a reduction of approximately 290 daily trips. Therefore, to comply with C/CAG's TDM policy, the proposed project would need to generate 540 or fewer daily trips. The project site is also considered "Transit Proximate" as it is located more than 0.5 miles but less than 3 miles from the Belmont Caltrain station.

As shown in Table 4.4.C, the proposed project would generate 110 net new trips in the AM peak hour and 110 net new trips in the PM peak hour. Based on the City's requirement, a 15 percent reduction would equate to 20 trips in the AM peak hour and 20 trips in the PM peak hour. The proposed TDM program is summarized in Table 4.4.D.

Table 4.4.D: Summary of TDM Measures

Measure ID		TDM Measure	Description	Point Value	
City	C/CAG			City	C/CAG _d
Active-1	9	Design Street to Encourage Bike/Pedestrian Access	New ADA accessible walking path from existing sidewalk to lobby	N/A	30
Active-2b	N/A	On-street bicycle racks/lockers	Four short-term bicycle racks	1	N/A
Active-3	7	Secure Bicycle Storage	16 secured bicycle lockers, located in garage	2	30
Active-4	8	Shower, lockers, and Changing Rooms	Shower and changing rooms located on the 2nd floor of the building	2	30
Transit-2	1	Preferential Parking for Carpool/Vanpool	17 preferential carpool/vanpool spaces located on the northern section of the site, near the Lobby entrance	1	30
Transit-3	3B	Commute assistance and ride-matching	Establish and register a carpool/ vanpool program with Commute.org	1	30
	4	Carpool or Vanpool Program			30
Transit-4	3C	Shuttle Program	The building owner will work with building tenants, as well as the owners and tenants of other office building along Davis Drive with providing a shuttle service. The shuttle program will provide service to/from Caltrain station in Belmont or other stations (if deemed necessary) during the morning and evening commute periods and downtown during midday	4 ^a	30

¹⁴ The proposed project would generate 930 total new trips and 718 net new trips.

Table 4.4.D: Summary of TDM Measures

Measure ID		TDM Measure	Description	Point Value	
City	C/CAG			City	C/CAG ^d
Transit-5	3D	Guarantee Ride Home	Encourage building tenants to participate in Commute.org guarantee ride home program	2	30
Transit-6	5	Transit or Ridesharing Passes Subsidies	Offer transit passes or subsidies equivalent to 30% of the value of their monthly fare or \$50 monthly	4 ^b	30
Transit-7	3A	Certified participation in TMA	Building tenants will register with Commute.org	1 ^c	30
Amenities-1	2	TDM Coordinator/Contact Person	Designated TDM coordinate that will work with City & C/CAG	2	30
Amenities-2	10	Flex Time, Compress Work Week, Telecommute	Building owner will encourage building tenants to provide alternative work schedules	6	5
N/A	3E	Orientation, Education, Promotional Program/ Materials	TDM coordinator will assist with providing educational information on how to reduce vehicle trips	N/A	30
N/A	6	Pre-Tax Transportation Benefits	Building owner will offer option for tenants to participate in a pre-tax transit program	N/A	30
N/A	21	Bike Repair Station	Bike repair station will be located in the indoor bicycle storage room	N/A	1
Total				26	36
Required				18	35
Surplus (+) / Deficient (-)				+8	+1

Source: Kimley-Horn (2022)

Note: N/A = not applicable

^a Currently the shuttle program is anticipated to serve less than four trip-options during the morning and evening commutes.^b A monthly subsidy of \$50 (4 points) was assumed for estimating points for Transit-6.^c Points for Transit-7 varies between 1 and 6 points and is determined by City staff. For planning purposes, a conservative point value of 1 was assumed.^d A combined maximum of 30 points can be achieved for implementing required TDM measures for "Transit Proximate" projects.

4.4.2.3 Project Impacts

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

1) Conflict with an applicable plan, ordinance, or policy, including the congestion management program, addressing all components of the circulation system

As shown in Table 4.4.E below, for CEQA purposes, the proposed project would be consistent with applicable plans, ordinances, and policies that address the circulation system.

Table 4.4.E: Project Compliance with Applicable Transportation-Related Plans, Ordinances, and Policies

Plan/Ordinance/Policy	Project Consistency
Plan Bay Area 2050	Consistent. The proposed project would be consistent with the Plan Bay Area 2050 goals and performance targets for transportation systems effectiveness. Specifically, the proposed project would increase non-auto mode share. The proposed project would develop a new office/R&D use near existing residential uses, reducing the demand for travel by single occupancy vehicles. The proposed project would also implement a TDM program to provide trip reduction measures and reduce vehicle traffic in and around the project site, to the extent feasible. In addition, the project area 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 to the project site is served by SamTrans Route 260, which runs on a loop from the San Carlos Caltrain Station to the College of San Mateo with 30- to 35-minute headways, which is located at the intersection of Ralston Avenue and Davis Drive adjacent to the project site. Finally, the proposed project would provide infrastructure for EV parking and charging, including both an accessible van charger, and charger-ready raceways.
C/CAG Congestion Management Program	Not Applicable. The proposed project would generate fewer 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 not required.
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 an online kiosk with transportation information, preferential carpool/vanpool parking spaces, and bicycle storage and shower and changing rooms for employees. As such, the 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 the MTC.
City of Belmont 2035 General Plan, Circulation Element	
Policy 3.1-5: Require new development and redevelopment projects to construct or pay their fair share toward improvements for all travel modes to provide and enhance connectivity to existing transportation facilities.	Consistent. Pursuant to the City's Transportation Impact Fee program, the proposed project would be required to pay \$10.57 per gross square foot of office use.
Policy 3.1-7: Create an accessible circulation network that is consistent with guidelines established by the Americans with Disabilities Act (ADA), allowing mobility-impaired users, such as the disabled and seniors, to safely and	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.

Table 4.4.E: Project Compliance with Applicable Transportation-Related Plans, Ordinances, and Policies

Plan/Ordinance/Policy	Project Consistency
effectively travel within and beyond the city.	
Policy 3.2-1: Promote energy efficiency and accommodate new and improved technology, such as alternative fuel vehicles, in meeting transportation needs.	Consistent. The proposed project is evaluated for compliance with SB 375 requirements through an analysis of greenhouse gas emissions in Section 4.6, Greenhouse Gas Emissions, of this EIR. All impacts related to greenhouse gas emissions would be less than significant.
Policy 3.4-1: Maintain and improve existing transportation facilities to ensure safety and reasonable convenience of use. Additional facilities shall be limited to local access roadways for improved connectivity only in areas of dense development, such as the Belmont Village PDA.	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 3.4-2: Provide road improvement standards, including rights-of-way, pavement condition, pavement width, and grade, that account for reasonable safety and recognize variations in local physical conditions.	Consistent. The proposed project would plan, design, and construct the new right-hand turn land along Ralston Avenue consistent with the City's road improvement standards.
Policy 3.5-1: Preserve and maintain Belmont's existing sidewalks and pedestrian paths.	Consistent. The proposed project would not introduce any features that preclude or interfere with sidewalks and pedestrian paths in the vicinity of the project site. 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 3.5-2: Require public sidewalks in conjunction with all new non-residential development.	Consistent. The proposed project would include public sidewalks along the Ralston Avenue and Davis Drive frontages.
Policy 3.5-14: Prioritize transportation improvements that improve pedestrian and bicycle safety for students traveling to and from schools.	Consistent. The proposed project would include public sidewalks along the Ralston Avenue and Davis Drive frontages, which may be used by students traveling to and from the Crystal Springs Upland School or Ralston Middle School. The proposed project would plan, design, and construct site access and circulation to provide safe and convenient access for pedestrians and bicyclists.
Policy 3.6-2: Encourage (or require, for large employment centers with high projected trip generation rates) businesses to implement Transportation Demand Management Programs with an emphasis on connecting and sharing the service with other businesses in the city and region, such as commuter buses, carpools, and other forms of private transit, especially in conjunction with major new industrial or commercial development.	Consistent. The proposed project would implement a TDM program. As a part of the TDM program, the building owner would work with building tenants, as well as the owners and tenants of other office building along Davis Drive to provide a shuttle service to/from the Caltrain station in Belmont or other stations, if deemed necessary.

Table 4.4.E: Project Compliance with Applicable Transportation-Related Plans, Ordinances, and Policies

Plan/Ordinance/Policy	Project Consistency
Ralston Corridor Study and Improvement Plans (RCS)	Consistent. The proposed project would include the construction of a new right-hand turn lane from Ralston Avenue to Davis Drive, be consistent with the preferred improvement in the RCS of updating signal timing and coordination. The proposed project would also include rehabilitated public sidewalks along the Ralston Avenue and Davis Drive frontages.

Source: Compiled by LSA (2021).

MTC = Metropolitan Transportation Commission

R&D = research and development

SB = Senate Bill

TDM = transportation demand management

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 standards and guidelines, and the department would provide oversight engineering review to ensure that the 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. The proposed project would promote bicycle use by providing long-term and short-term bicycle parking spaces and a changing and shower room. 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. Therefore, the proposed project would be consistent for CEQA purposes with applicable plans, ordinances, and policies outlined in Section 4.4.1.2, and this impact would be less than significant.

2) Exceed an applicable VMT threshold of significance

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

- The VMT threshold for new development is 15 percent below the Countywide average. Before or after mitigation measures such as TDM tools, projects which generate a level of VMT which is at least 15 percent less than the San Mateo Countywide average will be deemed to have no transportation impact per CEQA.
 - San Mateo County's VMT per employee is 17.21. Therefore, a 15 percent reduction would result in a VMT threshold of 14.63 VMT per employee.

VTM per employee is an efficiency metric, versus an absolute numerical value, and as such, applies only to the proposed project without regard to the VMT generated by the previously existing land use. Efficiency metrics cannot be summed because they employ a denominator.

As described previously, VTA's Countywide VMT tool was used to estimate average VMT per employee based on the location of the project site, the proposed land use, project characteristics, multimodal infrastructure, parking information, and TDM program element. Since the proposed project would include a TDM program (as previously described), this analysis does include further VMT reduction measures. Without the proposed project, the Home-based Work VMT per worker is 24.60. With implementation of the proposed project, including the TDM program, the Home-based Work VMT per worker is 19.70. Therefore, the proposed project's VMT per employee of 19.70 is approximately 34 percent above the threshold of 14.63 VMT per employee.

Impact TRA-1: The proposed project would exceed applicable VMT thresholds of significance. (S)

As described above, the estimated VMT accounts for the implementation of proposed project's TDM program. The proposed project's TDM program results in the maximum VMT reduction possible. Therefore, there are no feasible or realistic mitigation measures currently available that would reduce this impact to a less-than-significant level. Therefore, this impact would be significant and unavoidable.

Mitigation Measure TRA-1 The proposed project shall implement the proposed Transportation Demand Management (TDM) Program throughout the duration of project operations. (SU)

3) Substantially increase hazards due to a design feature or incompatible uses

For purposes of CEQA, hazards refer to engineering aspects of a project (e.g., speed, turning movements, complex designs, substantial distance between street crossings, and 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 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 project to exacerbate an existing or create a new potentially hazardous condition to people walking, bicycling, or driving, or for public transit operations.

As previously described, the proposed project would include the construction of a new right-hand turn lane from Ralston Avenue to Davis Drive. This turn lane would be designed consistent with the City's requirements and would require approval from the City's Public Works Department. This would ensure that the proposed turn lane would not substantially increase hazards. In addition, installation of the right-turn lane is intended to reduce and avoid potential hazards associated with sight distance concerns for vehicles traveling east on Ralston Avenue. Vehicles turning onto Davis Drive would have a dedicated right-turn lane to pull into as they slow on Ralston Avenue to make the right turn, thereby reducing potential vehicle conflicts on Ralston Avenue.

Vehicular access to the project site would be provided by a the existing/reconfigured driveway along Davis Drive, approximately 115 feet south of Ralston Avenue. This driveway would be a shared driveway with the proposed fire station. According to the City's Guidelines, there would be a project deficiency if the proposed project creates an unsignalized intersection or adds to an unsignalized intersection in which there is inadequate sight distance. Based on the location of the driveway, different speeds were assumed for northbound and southbound vehicles. For northbound vehicles, it was assumed that vehicles would be traveling at the posted speed limit of 25 mph. Southbound vehicles would be traveling at a slower speed of 15 mph as they would have recently completed a turning movement from Ralston Avenue. Based on these traveling speeds, the project driveway would need to provide a stopping sight distance of at least 100 feet north of the driveway and 150 feet south of the driveway. The proposed project would provide approximately 115 feet of sight distance north of the driveway and approximately 345 feet of sight distance south of the driveway. Therefore, there would be adequate stopping sight distance for vehicles traveling along Davis Drive.

Drive aisles within the project site would be approximately 26 feet wide, which would be adequate to allow for traffic to maneuver around the site and meet the City's requirements.

Pedestrian access to the project site would be provided by sidewalks on Ralston Avenue or Davis Drive and the marked pedestrian pathway on the south side of the site. Currently the sidewalk on the west side of Davis Drive terminates just south of Ralston Avenue, but the proposed project would include an extension of the sidewalk along Davis Drive to the southern border of the project site, adjacent to the project site. Within the site, there would be sidewalks around the office building and a marked pathway connecting the office building to the fire station. The TIA prepared for the proposed project recommends an additional pathway be constructed along the shared driveway aisle to provide a more direct path for those walking to the proposed building. However, this recommendation was made to provide more convenient access to the proposed building, and not to avoid or lessen a potential design hazard.

Bicyclists would utilize the bicycle facilities along Ralston Avenue to access the project site, where they would then use secure bicycle lockers to store bicycles. As described above, a shower and changing room would also be provided for bicyclists.

Bus stops located along Ralston Avenue adjacent to the project site would provide transit access. Crosswalks on the west and south legs of the intersection of Ralston Avenue and Davis Drive would allow pedestrians to walk to and from the bus stops and the project site.

The proposed project would provide adequate bicycle and pedestrian infrastructure and would represent an overall improvement to bicycle and pedestrian access and circulation. The proposed project would not generate activities that would create potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations. Additionally, as with current practice, the proposed project would be designed and reviewed in accordance with the City's Public Works Department requirements and the department would provide oversight engineering review to ensure that the project is constructed according to City specifications. Therefore, impacts related to design features and incompatible uses would be less than significant.

4) Result in inadequate emergency access

Emergency access to the project site would be similar to existing conditions. The San Mateo Consolidated Fire Station 15 is located on Cipriani Boulevard, approximately 0.3 mile east of the project site; however, this station would be relocated to the project site, reducing the travel and response time to the 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. 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. Building and site plans would be reviewed by City Planning, Engineering and Building Departments as well as the San Mateo Consolidated Fire Department for compliance with the Zoning and Building Code and Engineering Standards, in addition to the Fire Code, further ensuring that emergency access by fire or emergency services personnel would not be impaired. Therefore, impacts related to emergency access and circulation would be less than significant.

4.4.2.4 Cumulative Impacts

This section discusses potential cumulative impacts to the transportation and circulation network in the study area. As summarized in this section, the proposed project, in combination with cumulative projects, would have a less than significant impacts with respect to conflicts with applicable plans, VMT, hazards, and emergency access.

Conflicts with Applicable Plans, Ordinances, or Policies. Future development would be required to comply with existing regulations, including General Plan policies that have been prepared to minimize impacts related to transportation and circulation. The City, throughout the 2035 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. Furthermore, the implementation of the RCS would support adequate facilities and access to transportation and future development in the vicinity of the project site. Therefore, 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.

Vehicle Miles Traveled. Consistent with the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA, 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.

The proposed project would exceed the existing VMT thresholds of significance. Therefore, the proposed project would also have a cumulatively considerable impact with respect to VMT.

Impact TRA-2: The proposed project, in combination with cumulative projects, would exceed the existing VMT thresholds of significance. (S)

Future redevelopment within the city and the area immediately surrounding the project site could create a built environment with a more diverse mix of uses and therefore result in a potential decrease in per employee VMT by reducing the distance required for employees of the proposed project to commute to their residences or access other services. However, this efficient mix of uses cannot be guaranteed, as it would rely on future private development. Therefore, the proposed project, in combination with cumulative projects, would have a significant unavoidable impact with respect to VMT.

Hazards or Incompatible Uses. 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 requirements 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.

Emergency Access. 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 impacts related to emergency access. The City, throughout the 2035 buildout horizon, would implement the General Plan programs that require the City's continued coordination with the Belmont Police Department and the San Mateo Consolidated Fire Department 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.

4.4.3 Non-CEQA Analysis

4.4.3.1 Intersection Level of Service Analysis

The findings of the intersection LOS compliance analysis are presented in this section for informational purposes. The analysis scope and methodology, analysis scenarios, data collection, and LOS policy standards are detailed in Appendix F of this EIR.

As stated above, LOS is no longer a CEQA threshold. However, the City's Traffic Impact Guidelines require that the TIA also analyze LOS for local planning purposes.¹⁵ The LOS analysis determines whether the project traffic would cause an intersection LOS to exceed the City's LOS thresholds or

¹⁵ City of Belmont. 2014. *City of Belmont Guidelines for Traffic Impact Studies*. August.

cause either the average delay or average critical delay to exceed the City's intersection delay thresholds under near term and Cumulative conditions. These thresholds vary depending on the street classifications as well as whether the intersection is on a State route or not.

This sections summarizes the result of the LOS analysis under Existing Plus Project and Cumulative conditions, as well as the non-LOS and delay analysis. For a complete discussion of the LOS definitions, policy standards, thresholds, turning movement volumes, land configurations, and model outputs, please refer to the TIA in Appendix F.

Existing Plus Project LOS Conditions. Traffic operations were evaluated at the study intersections under existing conditions plus traffic generated by the proposed project. Tables 4.4.F and 4.4.G provide LOS results for the study intersections during the AM and PM peak hours under Existing Plus Project conditions. As shown, the following intersections would operate at an unacceptable LOS in the Existing Plus Project scenario:

- Intersection #1 – Ralston Avenue and El Camino Real
- Intersection #3 – Ralston Avenue and South Road
- Intersection #5 – Ralston Avenue and Chula Vista Drive
- Intersection #8 – Ralston Avenue and Cipriani Boulevard
- Intersection #10 – Ralston Avenue and Ralston Middle School Exit Driveway
- Intersection #12 – Ralston Avenue and Tahoe Drive

The Ralston Avenue and El Camino Real intersection (#1) operates at an unacceptable LOS E without the proposed project. The proposed project would cause an increase in delay by less than 4.0 seconds and adds less than 35 project trips to the intersection, and therefore the proposed project's impact on this intersection would not be considered a project deficiency.

In accordance with the City's Guidelines for Transportation Impact Studies, the proposed project would increase the control delay and demand-to-capacity ratio during at least one peak hour at the remaining intersections and cause the intersections to be deficient. Following are the recommended conditions of approval to improve intersection operations to pre-project conditions, or better, at the locations the proposed project would cause to be deficient.

- **Ralston Avenue and South Road (Intersection #3):** This intersection currently operates an unacceptable LOS F in the AM peak hour without the proposed project. Implementation of the proposed project would cause an increase in delay by less than 4.0 seconds in the AM peak hour and an increase in delay by 4.0 seconds or more in the peak, but adds more than 15 project trips to the intersection during both peak hours. Therefore, the proposed project would cause a deficiency during both the AM and PM peak hour.

Table 4.4.F: Existing Intersection Level of Service Summary

#	Intersection	LOS Criteria	Control	Existing					
				AM Peak			PM Peak		
				LOS ¹	Delay (sec) ¹	v/c	LOS ¹	Delay (sec) ¹	v/c
1	Ralston Avenue and El Camino Real	D	Signal	E	69.5	0.88	E	67.8	0.93
2	Ralston Avenue and Sixth Avenue	D	Signal	C	23.5	0.48	C	31.4	0.57
3	Ralston Avenue and South Road	D	AWSC	F	147.5	--	F	107.1	--
4	Ralston Avenue and Notre Dame de Namur University Driveway	D	SSSC	A	1.7	--	A	1.3	--
	<i>Worst Approach</i>			D	30.5	--	D	28.1	--
5	Ralston Avenue and Chula Vista Drive	D	SSSC	C	20.5	--	A	3.3	--
	<i>Worst Approach</i>			F	142.8	--	D	29.7	--
6	Ralston Avenue and Notre Dame Avenue	D	SSSC	A	3.1	--	A	1.7	--
	<i>Worst Approach</i>			D	32.7	--	D	28.0	--
7	Ralston Avenue and Alameda de Las Pulgas	D	Signal	D	51.4	0.87	D	41.4	0.77
8	Ralston Avenue and Cipriani Boulevard	D	Signal	F	86.1	0.96	C	28.3	0.71
9	Ralston Avenue and Davis Drive	D	Signal	A	8.1	0.65	B	13.7	0.66
10	Ralston Avenue and Ralston Middle School Exit	D	SSSC	A	7.5	--	A	0.3	--
	<i>Worst Approach</i>			F	54.4	--	C	23.0	--
11	Ralston Avenue and Ralston Middle School Entrance	D	Free	A	1.3	--	A	0.3	--
	<i>Worst Approach</i>			C	17.3	--	C	16.4	--
12	Ralston Avenue and Tahoe Drive	D	SSSC	A	1.7	--	A	0.5	--
	<i>Worst Approach</i>			D	27.7	--	E	35.2	--
13	Ralston Avenue and Belmont Canyon Road	D	Signal	B	13.9	0.60	A	3.9	0.57
14	Ralston Avenue and Hallmark Drive	D	Signal	C	23.1	0.77	B	14.6	0.71

Source: *Transportation Impact Analysis, 2 Davis Drive* (Kimley-Horn 2023).

Note: Intersections that are operating below (worse than) LOS D are shown in **Bold**.

¹ It should be noted that calculations of delay at saturated conditions (i.e., LOS F) are less reliable than at LOS E or better. Therefore, delay in excess of 80 seconds is reported in the table to allow a relative comparison of without and with project conditions and should not be interpreted as an exact representation of actual delay.

² Intersection delay, LOS, and v/c ratios calculated with Highway Capacity Manual (HCM) 2000 methodology using Synchro software.

AWSC = All-Way Stop Control

LOS = level of service

sec = second(s)

SSSC = side-street stop-controlled

v/c = volume-to-capacity

Table 4.4.G: Existing Plus Project Intersection Level of Service Summary

#	Intersection ¹	Existing Plus Project											
		AM Peak						PM Peak					
		LOS	Delay (sec)	Delay Change (sec)	v/c	v/c Change	Project Trips	LOS	Delay (sec)	Delay Change (sec)	v/c	Change in v/c	Project Trips
1	Ralston Avenue and El Camino Real	E	69.5	0.0	0.89	0.01	29	E	68.9	1.1	0.94	0.01	29
2	Ralston Avenue and Sixth Avenue	C	24.3	0.8	0.50	0.02	27	C	31.5	0.1	0.57	0.00	28
3	Ralston Avenue and South Road	F	148.9	1.4	--	--	27	F	111.9	4.8	--	--	28
4	Ralston Avenue and Notre Dame de Namur University Driveway	A	1.8	0.1	--	--	27	A	1.4	0.1	--	--	28
	Worst Approach	D	31.4	0.9	--	--		D	28.5	0.4	--	--	
5	Ralston Avenue and Chula Vista Drive	C	20.5	0.0	--	--	27	A	3.5	0.2	--	--	28
	Worst Approach	F	144.7	1.9	--	--		D	31.3	1.6	--	--	
6	Ralston Avenue and Notre Dame Avenue	A	3.2	0.1	--	--	27	A	1.7	0.0	--	--	28
	Worst Approach	D	34.5	1.8	--	--		D	28.5	0.5	--	--	
7	Ralston Avenue and Alameda de Las Pulgas	D	51.8	0.4	0.87	0.00	39	D	41.8	0.4	0.78	0.01	40
8	Ralston Avenue and Cipriani Boulevard	F	89.1	3.0	0.97	0.01	39	C	28.5	0.2	0.72	0.01	39
9	Ralston Avenue and Davis Drive	A	9.3	1.2	0.65	0.00	110	B	17.1	3.4	0.67	0.01	110
10	Ralston Avenue and Ralston Middle School Exit	A	7.5	0.0	--	--	71	A	0.3	0.0	--	--	71
	Worst Approach	F	55.3	0.9	--	--		C	22.6	-0.4	--	--	
11	Ralston Avenue and Ralston Middle School Entrance	A	1.4	0.1	--	--	71	A	0.3	0.0	--	--	71
	Worst Approach	C	18.7	1.4	--	--		C	16.6	0.2	--	--	
12	Ralston Avenue and Tahoe Drive	A	1.8	0.1	--	--	71	A	0.5	0.0	--	--	71
	Worst Approach	D	29.3	1.6	--	--		E	37.6	2.4	--	--	
13	Ralston Avenue and Belmont Canyon Road	B	13.9	0.0	0.61	0.01	71	A	4.0	0.1	0.57	0.00	71
14	Ralston Avenue and Hallmark Drive	C	24.7	1.6	0.80	0.03	71	B	15.4	0.8	0.72	0.01	71

Source: Transportation Impact Analysis, 2 Davis Drive (Kimley-Horn 2023).

Note: Intersections that are operating below (worse than) LOS D are shown in **Bold**.¹ The LOS Criteria and Intersection Controls are the same as those shown in Table 4.4.F.

LOS = level of service

sec = second(s)

v/c = volume-to-capacity

The RCS recommends that a traffic signal be installed at the intersection. With the installation of a traffic signal, the intersection would operate at an acceptable LOS B in both peak hours, with an average delay of 13.0 seconds in the AM peak hour and 11.0 seconds in the PM peak hour. It should be noted that this improvement was fully funded as part of the Crystal Springs Uplands School Project and was under construction when field observations were conducted in May 2018. This improvement was assumed under Cumulative conditions, and the intersection was determined to be operating under acceptable LOS. Since the improvement is already under construction, the proposed project should pay its fair share towards a corridor-wide improvements such as the Program for Arterial System Synchronization (PASS) Program Traffic Signal Timing Plan projects.

- **Ralston Avenue and Chula Vista Drive (Intersection #5):** This intersection currently operates at an unacceptable LOS F without the project. Implementation of the proposed project causes an increase in average delay by less than 4.0 seconds, but adds more than 15 project trips to the intersection in the AM peak hour. Therefore, the proposed project would cause a deficiency during the AM peak hour.

The project deficiency at this intersection could be improved by the installation of a traffic signal. Signalizing the intersection would result in the intersection operating at LOS C with an average delay of 26.8 seconds. However, the RCS identifies extensive crossing improvements at this intersection, including the installation of a median, the removal of the westbound merge, and the installation of a rectangular rapid flashing beacon (RRFB), instead of signalization to provide traffic calming benefits along this section of the Ralston Avenue corridor. The proposed project should pay its fair share towards these intersection improvements.

- **Ralston Avenue and Cipriani Boulevard (Intersection #8):** This intersection currently operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay by less than 4.0 seconds in the AM peak hour and an increase in delay by 4.0 seconds or more in the PM peak hour, but adds more than 15 project trips to the intersection in both peak hours. Therefore, the proposed project would cause a deficiency during both the AM and PM peak hour.

The project deficiency at this intersection could be improved by restriping the southbound approach to include one shared left-through lane and one exclusive right-turn lane. By restriping the southbound approach, the intersection would operate at LOS E with an average delay of 71.3, which is better than the base conditions. The RCS identifies improvements at this intersection to consist of removing free right-turn lanes and extending the curb to create a standard intersection and also the potential to extend the eastbound left-turn storage. The recommended improvement of restriping the southbound approach could be accomplished when other improvements are constructed. The proposed project should pay its fair share towards the improvement at this intersection.

- **Ralston Avenue and Ralston Middle School Exit Driveway (Intersection #10):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay by less than 4.0 seconds, but would add more than 15

project trips to the intersection during the AM peak hour. Therefore, the proposed project would cause a deficiency during the AM peak hour.

As noted for the level of service for the Cumulative condition, the intersection operation would improve due to the signalization of Intersection #11 and Intersection #12. The signals would create platooning of eastbound vehicles, which would result in more acceptable gaps in eastbound traffic for vehicles to exit the middle school. With the signalization of these intersections, the intersection of Ralston Avenue and the Ralston Middle School Exit Driveway would operate at LOS C with a worst movement delay of 20.1 seconds. The volume-to-capacity (v/c) ratio would also decrease to 0.55, which is 0.2 less than the base condition v/c. The RCS identifies installing a traffic signal at the intersection of Ralston Avenue and Tahoe Drive. It should be noted that the Belmont-Ralston Shores School District (BRSSD) has agreed to install the traffic signal. The proposed project should pay its fair share towards corridor-wide improvements.

- **Ralston Avenue and Tahoe Drive (Intersection #12):** This intersection operates at an unacceptable LOS E without the project. Implementation of the proposed project would cause an increase in average delay by less than 4.0 seconds, but would add more than 25 project trips to the intersection during the PM peak hour. Therefore, the proposed project would cause a deficiency during the PM peak hour.

The RCS recommends that a traffic signal be installed at the intersection. With the installation of a traffic signal, the intersection would operate at an acceptable LOS B with an average delay of 12.5 seconds. It should be noted that this improvement is identified in the BRSSD 5 School Expansion TIA and the school district agreed to install the traffic signal. Since this is a planned improvement, this improvement was assumed under Cumulative conditions and the intersection was found to be operating at an acceptable LOS. The proposed project should pay its fair share towards corridor-wide improvements such as the PASS Program Traffic Signal Timing Plan projects.

Cumulative Plus Project Intersection Level of Service. To achieve cumulative traffic conditions, an annual growth rate of 1.5 percent was applied to traffic volumes in the study area. Additionally, the following lane geometry improvements were assumed:

- **Ralston Avenue and South Road (Intersection #3):** Signalized intersection, along with reconfiguring the eastbound approach to consist of one eastbound left-turn lane and one eastbound through lane.
- **Ralston Avenue and Ralston Middle School Entrance Driveway (Intersection #11):** Signalized intersection, along with extending the westbound left-turn lane by approximately 200 feet (total of 270 feet).
- **Ralston Avenue and Tahoe Drive (Intersection #12):** Signalized intersection, along with reconfiguring the northbound approach to consist of one northbound left-turn lane and one northbound right-turn lane.

Traffic operations were evaluated at the study intersections under Cumulative conditions plus traffic generated by the proposed project. Tables 4.4.H and 4.4.I provide LOS results for the study intersections during the AM and PM peak hours under Existing Plus Project conditions. As shown, the following intersections would operate at an unacceptable LOS in the Existing Plus Project scenario:

- Intersection #1 – Ralston Avenue and El Camino Real (AM and PM peak hours)
- Intersection #4 – Ralston Avenue and Notre Dame de Namur University Driveway (AM and PM peak hours)
- Intersection #5 – Ralston Avenue and Chula Vista Drive (AM and PM peak hours)
- Intersection #6 – Ralston Avenue and Notre Dame Ave (AM and PM peak hours)
- Intersection #7 – Ralston Avenue and Alameda de Las Pulgas (AM and PM peak hours)
- Intersection #8 – Ralston Avenue and Cipriani Boulevard (AM and PM peak hours)
- Intersection #10 – Ralston Avenue and MS Exit (AM and PM peak hours)
- Intersection #14 – Ralston Avenue and Hallmark Drive (AM peak hour)

It should be noted that the level of service for Intersection #10 experiences some decrease in delay between Existing and Cumulative conditions. This improvement can be attributed to the signalizations of Intersection #11 and Intersection #12 because the signal at Ralston Avenue and Tahoe Drive creates platooning of eastbound vehicles, which results in more acceptable gaps in eastbound traffic for vehicles to exit the middle school. In accordance with the City's Guidelines for Transportation Impact Studies, the proposed project would increase the control delay and demand to capacity ratio during at least one peak hour at the remaining intersections and cause the intersections to be deficient. Following are the recommended conditions of approval to improve intersection operations to pre-project conditions, or better, at locations the proposed project would cause to be deficient.

- **Ralston Avenue and El Camino Real (Intersection #1):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay by less than 4.0 seconds, but would add more than 20 project trips to the intersection during the AM and PM peak hour. Therefore, the proposed project would cause a deficiency during both peak hours.

The RCS recommends that the intersection be included in the future PASS Program Traffic Signal Timing Plan project to update signal timing along the Ralston Avenue corridor. With this improvement, the intersection will operate at LOS F with 100.5 seconds and 122.4 seconds in the AM and PM peak hours, respectively. While the intersection still operates unacceptably, there is less delay than with the base conditions. The project should pay a fair share towards improvements at this intersection.

Table 4.4.H: Cumulative Intersection Level of Service Summary

#	Intersection	LOS Criteria	Control	Existing					
				AM Peak			PM Peak		
				LOS ¹	Delay (sec) ¹	v/c	LOS ¹	Delay (sec) ¹	v/c
1	Ralston Avenue and El Camino Real	D	Signal	F	121.2	1.14	F	121.3	1.20
2	Ralston Avenue and Sixth Avenue	D	Signal	C	26.7	0.64	D	36.9	0.76
3	Ralston Avenue and South Road	D	Signal	D	42.4	1.09	B	11.8	0.86
4	Ralston Avenue and Notre Dame de Namur University Driveway	D	SSSC	F	545.9	--	F	422.4	--
	<i>Worst Approach</i>			F	OVRFL	--	F	OVRFL	--
5	Ralston Avenue and Chula Vista Drive	D	SSSC	F	83.1	--	B	10.8	--
	<i>Worst Approach</i>			F	622.5	--	F	117.6	--
6	Ralston Avenue and Notre Dame Avenue	D	SSSC	B	12.5	--	A	3.8	--
	<i>Worst Approach</i>			F	145.3	--	F	71.0	--
7	Ralston Avenue and Alameda de Las Pulgas	D	Signal	F	89.8	1.12	E	78.5	1.00
8	Ralston Avenue and Cipriani Boulevard	D	Signal	F	186.3	1.29	E	72.5	0.95
9	Ralston Avenue and Davis Drive	D	Signal	B	16.1	0.84	C	22.8	0.86
10	Ralston Avenue and Ralston Middle School Exit	D	SSSC	A	6.7	--	A	0.4	--
	<i>Worst Approach</i>			F	51.4	--	E	37.7	--
11	Ralston Avenue and Ralston Middle School Entrance	D	Signal	A	4.9	0.80	A	3.5	0.72
12	Ralston Avenue and Tahoe Drive	D	Signal	A	14.0	0.70	A	9.6	0.75
13	Ralston Avenue and Belmont Canyon Road	D	Signal	B	17.6	0.80	A	6.2	0.73
14	Ralston Avenue and Hallmark Drive	D	Signal	E	74.4	1.04	D	36.7	0.92

Source: *Transportation Impact Analysis, 2 Davis Drive* (Kimley-Horn 2023).

Note: Intersections that are operating below (worse than) LOS D are shown in **Bold**.

¹ It should be noted that calculations of delay at saturated conditions (i.e., LOS F) are less reliable than at LOS E or better. Therefore, delay in excess of 80 seconds is reported in the table to allow a relative comparison of without and with project conditions and should not be interpreted as an exact representation of actual delay.

² Intersection delay, LOS, and v/c ratios calculated with Highway Capacity Manual (HCM) 2000 methodology using Synchro software.

LOS = level of service

OVRFL = overflow

sec = second(s)

SSSC = side-street stop-controlled

v/c = volume-to-capacity

Table 4.4.I: Cumulative Plus Project Intersection Level of Service Summary

#	Intersection ¹	Existing Plus Project											
		AM Peak						PM Peak					
		LOS	Delay (sec)	Delay Change (sec)	v/c	v/c Change	Project Trips	LOS	Delay (sec)	Delay Change (sec)	v/c	v/c Change	Project Trips
1	Ralston Avenue and El Camino Real	F	121.5	0.3	1.14	0.00	29	F	123.5	2.2	1.21	0.01	29
2	Ralston Avenue and Sixth Avenue	C	26.7	0.0	0.64	0.00	27	D	37.0	0.1	0.76	0.00	28
3	Ralston Avenue and South Road	D	42.7	0.3	1.10	0.01	27	B	12.2	0.4	0.87	0.01	28
4	Ralston Avenue and Notre Dame de Namur University Driveway	F	541.5	-4.4	--	--	27	F	418.5	-3.9	--	--	28
	Worst Approach	F	OVRFL	--	--	--		F	OVRFL	--	--	--	
5	Ralston Avenue and Chula Vista Drive	F	82.9	-0.2	--	--	27	B	11.8	1.0	--	--	28
	Worst Approach	F	608.9	-13.6	--	--		F	126.5	8.9	--	--	
6	Ralston Avenue and Notre Dame Avenue	B	13.3	0.8	--	--	27	A	3.8	0.0	--	--	28
	Worst Approach	F	156.9	11.6	--	--		F	73.4	2.4	--	--	
7	Ralston Avenue and Alameda de Las Pulgas	F	90.7	0.9	1.13	0.01	39	F	82.5	4.0	1.01	0.01	40
8	Ralston Avenue and Cipriani Boulevard	F	189.1	2.8	1.30	0.01	39	E	76.3	3.8	0.96	0.00	39
9	Ralston Avenue and Davis Drive	B	14.9	-1.2	0.84	0.00	110	B	25.8	3.0	0.87	0.00	110
10	Ralston Avenue and Ralston Middle School Exit	A	5.0	-1.7	--	--	71	A	0.4	0.0	--	--	71
	Worst Approach	E	36.4	-15.0	--	--		E	38.3	0.6	--	--	
11	Ralston Avenue and Ralston Middle School Entrance	A	5.8	0.9	0.80	0.00	71	A	3.3	-0.2	0.72	0.00	71
12	Ralston Avenue and Tahoe Drive	B	11.3	-2.7	0.72	0.02	71	A	9.7	0.1	0.75	0.00	71
13	Ralston Avenue and Belmont Canyon Road	B	15.9	-1.7	0.81	0.01	71	A	7.1	0.9	0.74	0.01	71
14	Ralston Avenue and Hallmark Drive	F	94.0	19.6	1.07	0.03	71	D	36.9	0.2	0.92	0.00	71

Source: *Transportation Impact Analysis, 2 Davis Drive* (Kimley-Horn 2023).

Note: Intersections that are operating below (worse than) LOS D are shown in **Bold**.

¹ The LOS Criteria and Intersection Controls are the same as those shown in Table 4.4.H.

LOS = level of service

OVRFL = overflow

sec = second(s)

v/c = volume-to-capacity

- **Ralston Avenue and Notre Dame de Namur University Driveway (Intersection #4):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause decrease in average delay, but would add more than 15 project trips to the intersection during the AM and PM peak hour. Therefore, the proposed project would cause a deficiency during both peak hours.

The project deficiency at this intersection could be improved by the installation of a traffic signal. Signalizing the intersection would result in the intersection operating at an acceptable LOS D with an average delay of 40.2 seconds during the AM peak and at an unacceptable LOS E with an average delay of 57.6 during the PM peak hour. While the intersection still operates unacceptably, there is less delay than with the base condition. However, the RCS recommends a modern roundabout at this intersection to provide traffic-calming benefits along this section of the Ralston Avenue corridor. It should be noted that the roundabout improvement would result in the intersection operating at LOS F. The project should pay its fair share towards the intersection improvement.

- **Ralston Avenue and Chula Vista Drive (Intersection #5):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay less than 4.0 seconds, but would add more than 15 project trips to the intersection during the AM and PM peak hour. Therefore, the proposed project would cause a deficiency during both peak hours.

The project deficiency at this intersection could be improved by the installation of a traffic signal. With this improvement, the intersection would operate at an unacceptable LOS E with an average delay of 76.9 seconds in the AM peak hour and an acceptable LOS C with an average delay of 26.0 seconds in the PM peak hour. While the intersection still operates unacceptably in the AM peak, there is less delay than with the base conditions. The project should pay its fair share towards the intersection improvement.

- **Ralston Avenue and Notre Dame Avenue (Intersection #6):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay less than 4.0 seconds, but would add more than 15 project trips to the intersection during the AM and PM peak hour. Therefore, the proposed project would cause a deficiency during both peak hours.

The project deficiency at this intersection could be improved by the installation of a traffic signal. With this improvement, the intersection would operate at an acceptable LOS C with an average delay of 27.5 seconds and 25.4 in the AM peak hour and PM peak hour, respectively. The RCS identifies the signalization of the intersection, along with striping and crosswalk improvements. The project should pay its fair share towards the intersection improvements.

- **Ralston Avenue and Alameda de las Pulgas (Intersection #7):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay less than 4.0 seconds, but would add more than 20 project trips to the intersection during the AM peak hour. Therefore, the proposed project would cause a deficiency during the AM peak hour.

The RCS recommends that the intersection be included in the future PASS Program Traffic Signal Timing Plan projects to update signal timing along the Ralston Avenue corridor. With this improvement, the intersection would operate at LOS F with 85.3 seconds of delay in the AM peak hour. While the intersection still operates unacceptably in the AM peak hour, there is less delay than with the base conditions. The project should pay a fair share towards improvements at this intersection.

- **Ralston Avenue and Cipriani Boulevard (Intersection #8):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay less than 4.0 seconds, but would add more than 20 project trips to the intersection during the AM peak hour. Therefore, the proposed project would cause a deficiency during the AM peak hour.

To improve the project deficiency, the southbound approach should be restriped to include one shared left-through lane and one exclusive right-turn lane, and the eastbound left-turn storage lane would be extended. With this improvement, the intersection would operate at LOS F with an average delay of 161.4 seconds. While the intersection still operates unacceptably in the AM peak hour, there is less delay than with the base conditions. The RCS improvements could also include extending the eastbound left-turn storage.

- **Ralston Avenue and Ralston MS Exit (Intersection #10):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay less than 4.0 seconds, but would add more than 15 project trips to the intersection during the AM and PM peak hour. Therefore, the proposed project would cause a deficiency during both peak hours.

The intersection operation improves due to the signalizations of Intersection #11 and Intersection #12. The signals create platooning of eastbound vehicles, which results in more acceptable gaps in eastbound traffic for vehicles to exit the middle school. With the signalization of these two intersections, the intersection of Ralston Avenue and the Ralston Middle School Exit Driveway will operate at LOS D with a worst movement delay of 31.2 seconds in the AM peak hour and LOS E with a worst movement of 37.5 seconds in the PM peak hour. While the intersection still operates unacceptably in the PM peak, there is less delay than with the base conditions. The RCS identifies installing a traffic signal at the intersection of Ralston Avenue and Tahoe Drive. It should be noted that the BRSSD has agreed to install the traffic signal. The project should pay its fair share towards corridor-wide improvements.

- **Ralston Avenue and Hallmark Drive (Intersection #14):** This intersection operates at an unacceptable LOS F without the project. Implementation of the proposed project would cause an increase in average delay greater than 4.0 seconds during the AM peak hour. Therefore, the proposed project would cause a deficiency during the AM peak hour.

The RCS recommends that the intersection be included in the future PASS Program Traffic Signal Timing Plan projects to update signal timing along the Ralston Avenue corridor. With this improvement, the intersection will operate at an acceptable LOS D with 37.4 seconds of delay. The project should pay a fair share towards improvements at this intersection.

Signal Warrant Analysis. Peak-hour signal warrants were evaluated at the unsignalized intersections. According to City's Guidelines, there would be a project deficiency if the project traffic causes an intersection to meet or exceed Caltrans signal warrant criteria. For locations where the base-case volumes already exceed signal warrant criteria levels, project deficiency may occur if the project traffic increases the demand to capacity ratio (v/c) by 0.1 or more. The following intersections satisfy the peak-hour warrants under the base condition:

- Intersection #3 – Ralston Avenue and South Road (Existing AM peak hour)
- Intersection #4 – Ralston Avenue and Notre Dame de Namur University Driveway (Cumulative AM peak hour)
- Intersection #5 – Ralston Avenue and Notre Dame de Namur University Driveway (Existing and Cumulative AM and PM peak hours)
- Intersection #6 – Ralston Avenue and Notre Dame Avenue (Existing AM and Cumulative AM and PM peak hours)
- Intersection #10 – Ralston Avenue and Ralston Middle School Exit (Existing and Cumulative AM peak hours)

In accordance with the City's Guidelines for Transportation Impact Studies, the proposed project would satisfy the peak-hour warrant in the base condition and increase the v/c ratio by 0.01, resulting in a project deficiency, at Intersections #4, #5, #6, and #10. For Intersections #4, #5, and #10, the recommended improvements described under Cumulative Plus Project conditions would improve intersection operation (including the need for a traffic signal) to an acceptable condition. Following is the recommended condition of approval to improve the remaining intersection operations to an acceptable level.

- **Ralston Avenue and Notre Dame Avenue (Intersection #6):** During the AM peak hour, the volumes at this intersection satisfy peak-hour signal warrants under both the existing and Existing Plus Project conditions. Implementation of the proposed project would increase the v/c ratio by 0.01. Therefore, the proposed project would cause a deficiency during the AM peak hour.

The RCS identifies the signalization of the intersection, along with striping and crosswalk improvements. The project should pay its fair share towards the intersection improvements.

Exclusive Turn Lane Warrants. The Highway Capacity Manual (HCM) 2000 methodology was used to determine if the addition of exclusive turn lanes were warranted at intersections. According to the City's Guidelines, there would be a project deficiency if exclusive turn lanes are warranted at an intersection after inclusion of the proposed project. For locations where base-case volumes already exceed turn-lane warrant criteria levels, there would be a project deficiency where proposed project

traffic increases peak-hour volumes by more than 1 percent. Turn-lane warrants were considered during the AM and PM peak hours.

The analysis showed that three intersections along Ralston Avenue (El Camino Real, Sixth Avenue, and Cipriani Boulevard) that warrant an exclusive turn lane in both the Existing and Cumulative base case conditions. Although these turning movements remain deficient with the project, the trips generated by the project do not add more than 1 percent of volumes to the movements. Therefore, these deficiencies are not a project deficiency according to the City's Guidelines.

Intersection Vehicle Queuing. The effects of vehicle queuing were analyzed and the 95th percentile queue is reported for all study intersections. The 95th percentile queue length represents a condition where 95 percent of the time during the peak hour, traffic volumes will be less than or equal to the queue length determined by the analysis. This is referred to as the "95th percentile queue." The 95th percentile queue was determined based on HCM 2000 methodology within the Synchro software.

In accordance with the City's Guidelines for Transportation Impact Studies, the proposed project would create vehicle queues exceeding turn-lane capacity or cause problematic backups of traffic on driveways or roadways on or off the project site, resulting in a project deficiency at Intersections #1, #2, #7, #9, and #14.

Implementation of the proposed project would result in an increase in queue length of 1 percent or greater for the northbound left turn at Intersection #2 and at Intersection #9. However, this is not considered a project deficiency due to the split phases for the northbound approach. During a split phase, all movements for the approach phase receive a green phase and vehicles are allowed to go at once. Therefore, the northbound left- or right-turn queue at these locations would not impact the northbound through movement.

For Intersections #1 and #14, the recommended improvements described under Cumulative Plus Project conditions would improve intersection operation (including vehicle queues) to an acceptable condition. Following is the recommended condition of approval to improve the remaining intersection operations to an acceptable level.

- **Ralston Avenue and Sixth Avenue (Intersection #2):** In the Existing Plus Project scenario, the queue for the eastbound left-turn movement is 105 feet in the AM peak hour. Under the base condition without the project, the eastbound left-turn movement is 49 feet, which is within the 70-foot queue storage length. Therefore, implementation of the proposed project would cause the queue length to exceed the storage length and would cause a deficiency during the AM peak hour.

The RCS recommends that the intersection be included in the future PASS Program Traffic Signal Timing Plan projects to update signal timing along the Ralston Avenue corridor. With this improvement, the eastbound left queue would be 70 feet, which would be within the allowed queue storage. The project should pay a fair share towards improvements at this intersection.

- **Ralston Avenue and Alameda de las Pulgas (Intersection #7):** In the Existing Plus Project scenario, the queue for the eastbound left-turn movement is 141 feet in the PM peak hour.

Under the base condition without the project, the eastbound left-turn movement queue is 138 feet, which exceeds the 95-foot queue storage length. The project increases the queue length by 2.2 percent (3 feet), which results in a project deficiency. Additionally, the queue for the eastbound right-turn movement is 397 feet in the PM peak hour. Under the base condition without the project, the northbound right-turn queue is 388 feet, which exceeds the 80-foot queue storage length. The project increases the queue length by 2.3 percent (9 feet), which results in a project deficiency. Therefore, implementation of the proposed project would cause a deficiency in the PM peak hour.

The RCS recommends that the intersection be included in the future PASS Program Traffic Signal Timing Plan projects to update signal timing along the Ralston Avenue corridor. With this improvement, during the PM peak, the eastbound left-turn queue will be 134 feet and the eastbound right-turn queue will be 380 feet, which are less than the base condition queue length. The project should pay a fair share towards improvements at this intersection.

4.4.3.2 Parking Assessment

Code Requirements. The City's Zoning Ordinance requires a minimum of 1 parking space for each 250 square feet of net floor area or 90 percent of the gross floor area. The proposed project would include 64,059 net square feet of office floor area, which would require 256 parking spaces. The City does not have a requirement for a minimum number of bicycle parking spaces.

Parking Supply. The proposed project would include a parking garage with a total of 62 spaces and a surface parking lot that would provide 153 spaces, for a total of 215 spaces. The proposed project would also include a valet service, which would provide an additional 37 parking spaces in the garage and 16 parking spaces within the surface lot, for a total of 53 valet parking spaces. With the striped parking stall and valet parking, the project site would be able to accommodate 268 vehicles. Therefore, provided that the Planning Commission approves the use of a valet service to provide additional parking spaces, the proposed project would meet the Zoning Ordinance requirements for vehicle parking.

The proposed project would also include 16 long-term bicycle parking spaces located inside the garage and one bicycle rack of short-term parking near the entry plaza.

Parking Demand. ITE Parking Generation rates estimates 2.39 vehicle parking stalls per 1,000 square feet of office space, resulting in an estimated demand of 185 vehicle parking stall for the proposed project. The proposed project would include a total of 215 vehicle parking spaces (268 with valet service), and therefore meets the ITE-estimated demand for office parking. Additionally, as discussed previously, the project's proposed TDM plan identifies several measures to reduced vehicle trips and associated demand for parking.

4.5 AIR QUALITY

This section has been prepared using methodologies and assumptions recommended in the air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD).¹ In keeping with these guidelines, this section describes existing air quality, impacts of the proposed project on local carbon monoxide (CO) levels, impacts of vehicular emissions that have regional effects, and exposure of sensitive receptors to toxic air contaminants (TACs). A construction Health Risk Assessment (HRA) was also performed and is included in this section. Mitigation measures to reduce or eliminate potentially significant air quality impacts are identified, where appropriate. Air quality modeling data are included in Appendix G. The HRA model results are included in Appendix G.

4.5.1 Setting

The following discussion provides an overview of existing air quality conditions in the region and in the City of Belmont (City). Ambient air quality standards and the regulatory framework are summarized and climate, air quality conditions, and typical air pollutant types and sources are also described.

4.5.1.1 Air Pollutants and Health Effects

Both State and federal governments have established health-based ambient air quality standards for six criteria air pollutants: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), 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 pollutants, O₃ and NO₂, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO₂, and Pb are considered local pollutants that tend to accumulate in the air locally.

The primary pollutants of concern in the project area are O₃, 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 pollutants. These emission thresholds were established for individual development projects that would contribute to regional and local emissions and could adversely affect or delay the air basin's projected attainment target goals for nonattainment criteria pollutants.

Because of the conservative nature of the significance thresholds, and the basin-wide context of individual development project emissions, there is no direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds

¹ Bay Area Air Quality Management District (BAAQMD). 2023. *2022 California Environmental Quality Act, Air Quality Guidelines*. April 20.

are those with regional effects, such as ozone precursors like nitrogen oxides (NO_x) and reactive organic gases (ROG).

Further, by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to by itself 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 would be considered significant. In developing thresholds of significance for air pollutants, the air districts have considered the emission levels for 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 to the region's existing air quality conditions.

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have 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, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise. These populations are referred to as sensitive receptors.

Air pollutants and their health effects, and other air pollution-related considerations are summarized in Table 4.5.A and are described in more detail below.

Ozone. Ozone is a secondary air pollutant 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 ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. In the San Francisco Bay Area (Bay Area), automobiles are the single largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide. CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. CO transport is limited – it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of

Table 4.5.A: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O ₃)	Precursor sources¹ 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 diesels) - Fireplaces, woodstoves - 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, increased inhaler usage
Particulate Matter Less than 10 Microns in Aerodynamic Diameter (PM ₁₀)	- Cars and trucks (especially diesels) - Fireplaces, woodstoves - Windblown dust from roadways, agriculture, and construction	- Premature death and hospitalization, primarily for worsening of respiratory disease - Reduced visibility and material soiling
Nitrogen Oxides (NO _x)	Any source that burns fuels 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 fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves	- Chest pain in patients with heart disease - Headache - 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: increased symptoms, increased medication usage, and emergency room visits
Lead (Pb)	Contaminated soil	- Impaired mental functioning in children - Learning disabilities in children - Brain and kidney damage
Toxic Air Contaminants (TACs)	- Cars and trucks (especially diesels) - 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 (2018).

¹ Ozone is not generated directly by these sources. Rather, chemicals emitted by these precursor sources react with sunlight to form ozone in the atmosphere.

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 humanmade and natural sources. Particulate matter is categorized in two size ranges: PM₁₀ for particles less than 10 microns in aerodynamic diameter and PM_{2.5} for particles less than 2.5 microns in aerodynamic diameter. In the Bay Area, motor vehicles

generate about half of the air basin's particulates through tailpipe emissions as well as brake pad, tire wear, and entrained road dust. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of such fine particulates. These fine particulates are small enough to be inhaled into the deepest parts of the human lung and can cause adverse health effects. According to the California Air Resources Board (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, and studies of children's health in California have demonstrated that particle pollution may significantly reduce lung function growth in children.² Statewide attainment of particulate matter standards could reduce premature deaths, hospital admissions for cardiovascular and respiratory disease and asthma-related emergency room visits, and episodes of respiratory illness in California.

Nitrogen Dioxide. NO₂ is a reddish brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO₂. Aside from its contribution to ozone formation, NO₂ also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO₂ may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO₂ decreases lung function and may reduce resistance to infection.

Sulfur Dioxide. SO₂ is a colorless acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO₂ 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. SO₂ also reduces visibility and the level of sunlight at the ground surface.

Lead. Lead is a metal found naturally in the environment as well as in 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 United States Environmental Protection Agency (USEPA) 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 USEPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of USEPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

Toxic Air Contaminants. In addition to the criteria pollutants discussed above, TACs are another group of pollutants of concern. Some examples of TACs include: benzene, butadiene, formaldehyde, and hydrogen sulfide. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of

² California Air Resources Board (CARB). 2020b. *Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)*. Website: ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health (accessed August 2021).

toxicity. Individual TACs vary greatly in the health risks 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 USEPA and the CARB. In 1998, the CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. The CARB has completed a risk management process that identified potential cancer risks for a range of activities and land uses that are characterized by use of diesel-fueled engines.³ High-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truck stops) were identified as posing the highest risk to 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 concentration and duration of exposure.

The BAAQMD regulates TACs using a risk-based approach. This approach uses a health risk assessment to determine what sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, in order to provide a quantitative estimate of health risks.⁴ As part of ongoing efforts to identify and assess potential health risks to the public, the 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 the BAAQMD determine health risk 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.⁵ According to the BAAQMD, ambient benzene levels declined dramatically in 1996 with the advent of Phase 2 reformulated gasoline. Due to this reduction, the calculated average cancer risk based on monitoring results has also been reduced.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter is emitted from mobile sources – primarily “off-road” sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as trucks and buses traveling on freeways and local roadways. Agricultural and mining equipment is not commonly used in urban parts of the Bay Area, while construction equipment typically operates for a limited time at various locations. As a result, the readily identifiable locations

³ California Air Resources Board (CARB). 2000a. *Fact Sheet – California’s Plan to Reduce Diesel Particulate Matter Emissions*. October. Website: www.arb.ca.gov/diesel/factsheets/rrpfactsheet.pdf (accessed August 2021).

⁴ In general, a health risk assessment is required if the 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.

⁵ Bay Area Air Quality Management District (BAAQMD). 2015. *Toxic Air Contaminant Control Program Annual Report, Volume 1*. May. Website: <https://www.baaqmd.gov/about-air-quality/research-and-data/emission-inventory/toxic-air-contaminants> (accessed August 2021).

where diesel particulate matter is emitted in the Bay Area include high-traffic roadways and other areas with substantial truck traffic.

Although not specifically monitored, recent studies indicate that exposure to diesel particulate matter may contribute significantly to a cancer risk (a risk of approximately 500 to 700 in 1,000,000) that is greater than all other measured TACs combined.⁶ The CARB Diesel Risk Reduction Plan is intended to substantially reduce diesel particulate matter emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel – a step already implemented – and cleaner-burning diesel engines.⁷ The technology for reducing diesel particulate matter 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.

High-Volume Roadways. Air pollutant exposures and their associated health burdens vary considerably within places in relation to sources of air pollution. Motor vehicle traffic is perhaps the most important source of intra-urban spatial variation in air pollution concentrations. 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 100 to 200 meters (328 to 656 feet) of freeways or busy roadways have reduced lung function and higher rates of respiratory disease. At present, it is not possible to attribute the effects of roadway proximity on non-cancer health effects to one or more specific vehicle types or vehicle pollutants. Engine exhaust, from diesel, gasoline, and other combustion engines, is a complex mixture of particles and gases with collective and individual toxicological characteristics.

4.5.1.2 National and State Ambient Air Quality Standards

Both State and federal governments have established health-based ambient air quality standards for criteria air pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Both the USEPA and the CARB have established ambient air quality standards for the following common pollutants: CO, O₃, NO₂, SO₂, Pb, 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. These ambient air quality standards are levels of contaminants that avoid specific adverse health effects associated with each pollutant.

Federal standards include both primary and secondary standards. Primary standards establish limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection

⁶ Ibid.

⁷ California Air Resources Board (CARB). 2000b. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October. Prepared by the Stationary Source Division and Mobile Source Control Division. Website: <https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rrpfinal.pdf> (accessed August 2021).

against decreased visibility, and damage to animals, crops, vegetation, and buildings.⁸ State and federal standards for the criteria air pollutants are listed in Table 4.5.B.

4.5.1.3 Existing Climate and Air Quality

The following provides a discussion of the local and regional air quality and climate in the Belmont area.

Regional and Local Air Quality. Belmont is located in the middle of the San Francisco Bay Area Air Basin (Air Basin), a large shallow air basin ringed by hills that taper into a number of sheltered valleys around the perimeter. Two primary atmospheric outlets exist. One is through 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.

The City is within the jurisdiction of the BAAQMD, which regulates air quality in the Bay Area. Air quality conditions in the Bay Area have improved significantly since the 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 (CAAQS and NAAQS, respectively) of the following chemicals have been violated in recent decades: NO₂, SO₂, sulfates, lead, hydrogen sulfide, and vinyl chloride. Those exceedances of air quality standards that do occur primarily happen during meteorological conditions conducive to high pollution levels, such as cold, windless nights or hot, sunny summer afternoons.

Ozone levels, measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by the BAAQMD and other regional, State and federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the Bay Area still exceeds the State standard for 1-hour ozone as well as the State and federal 8-hour standards. Levels of PM₁₀ often exceed State standards, and the area is considered a nonattainment area for this pollutant relative to the State standards. The Bay Area is an unclassified area for the federal PM₁₀ standard.

No exceedances of the State or federal CO standards have been recorded at any of the region's monitoring stations since 1991. The Bay Area is currently considered a maintenance area for State and federal CO standards.

Local Climate and Air Quality. Air quality is a function of both local climate and local sources of air pollution. Air quality is the balance of the natural dispersal capacity of the atmosphere and emissions of air pollutants from human uses of the environment. Two meteorological factors affect air quality in Belmont: wind and temperature. Winds affect the direction of transport of any air pollution emissions and wind also controls the volume of air into which pollution is mixed in a given period of time. While winds govern horizontal mixing processes, temperature inversions determine the vertical mixing depth of air pollutants.

⁸ United States Environmental Protection Agency (USEPA). 2017b. Criteria Air Pollutants. October. Website: www.epa.gov/criteria-air-pollutants (accessed August 2021).

Table 4.5.B: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		Federal Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1-Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24-Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		–		
Fine Particulate Matter (PM _{2.5}) ⁹	24-Hour	–		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen Dioxide (NO ₂) ¹⁰	Annual Arithmetic Mean	0.03 ppm (57 µg/m ³)	Gas Phase Chemi-luminescence	53 ppb (100 µg/m ³)	Same as Primary Standard	Gas Phase Chemi-luminescence
	1-Hour	0.18 ppm (339 µg/m ³)		100 ppb (188 µg/m ³)	–	
Lead (Pb) ^{12,13}	30-Day Average	1.5 µg/m ³	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average ⁹	–		0.15 µg/m ³		
Sulfur Dioxide (SO ₂) ¹¹	24-Hour	0.04 ppm (105 µg/m ³)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m ³)	
	1-Hour	0.25 ppm (655 µg/m ³)		75 ppb (196 µg/m ³) ¹¹	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹¹	–	
Visibility-Reducing Particles ¹²	8-Hour	See footnote ¹⁴	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24-Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹⁰	24-Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Source: Ambient Air Quality Standards (California Air Resources Board 2016).

Table footnotes are provided on the following page.

- ¹ California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- ² National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once per year. The ozone standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, is equal to or less than the standard. Contact the USEPA for further clarification and current national policies.
- ³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- ⁴ Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
- ⁵ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- ⁶ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- ⁷ Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.
- ⁸ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- ⁹ On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- ¹⁰ To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- ¹¹ On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- ¹² The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- ¹³ The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- ¹⁴ In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius

µg/m³ = micrograms per cubic meter

CAAQS = California ambient air quality standards

CARB = California Air Resources Board

mg/m³ = milligrams per cubic meter

ppb = parts per billion

ppm = parts per million

USEPA = United States Environmental Protection Agency

Belmont 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 west coast and warm in 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 focused along the western coast. Rainfall averages about 20 to 25 inches per year at lower elevations and up to 36 inches in the Santa Cruz Mountains.⁹

Ozone and fine particle pollution (i.e., PM_{2.5}) are the major regional air pollutants of concern in the Bay Area. Ozone is primarily a problem in the summer, and fine particle pollution in the winter.¹⁰

In San Mateo County, ozone almost never exceeds health standards, and PM_{2.5} exceeds the national standard only on about 1 day each year. San Mateo County frequently receives fresh marine air from the Pacific Ocean, which passes over the coastal hills. In winter, PM_{2.5} may be transported into San Mateo County from other parts of the Bay Area, adding to wood smoke, which may lead to elevated concentrations, but these are rarely high enough to exceed health standards.¹¹

Air Quality Monitoring Results. Air quality monitoring stations are located throughout the nation and maintained by the local air pollution control district and state air quality regulating agencies. Ambient air data collected at permanent monitoring stations are used by the USEPA to identify regions as attainment or nonattainment depending on whether the regions met the requirements stated in the primary NAAQS. Attainment areas are required to maintain their status through moderate, yet effective, air quality maintenance plans. Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment such as marginal, moderate, serious, severe, and extreme are used to classify each air basin in the State on a pollutant-by-pollutant basis. Different classifications have different mandated attainment dates and are used as guidelines to create air quality management strategies to improve air quality and comply with the NAAQS by the attainment date. A region is determined to be unclassified when the data collected from the air quality monitoring stations do not support a designation of attainment or nonattainment, due to lack of information, or a conclusion cannot be made with the available data. The San Francisco Bay Area Air Basin's attainment status for each criteria pollutant is listed in Table 4.5.C.

The CARB and the USEPA 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 pollutant data.¹² The air quality trends from this station are used to represent the ambient air quality in the project area. Ambient air quality in the project area from 2020 to 2022 (the most recent available period) is shown in Table 4.5.D. The pollutants monitored were CO, O₃, PM_{2.5}, and NO₂. Air quality trends for PM₁₀ and SO₂ are not monitored in San Mateo County; therefore, the air quality trends for PM₁₀ and SO₂ are from the 156B Jackson Street monitoring station in San Jose.

⁹ Bay Area Air Quality Management District (BAAQMD). 2019. *Climate and Air Quality in San Mateo County*. February 14, 2019. Website: www.baaqmd.gov/about-the-air-district/in-your-community/san-mateo-county (accessed August 2021).

¹⁰ Ibid.

¹¹ Ibid.

¹² CARB gathers ambient air quality data for the State of California and ensures the quality of these data. CARB provides ambient air quality monitoring sites throughout California's counties and air basins.

Table 4.5.C: San Francisco Bay Area Air Basin Attainment Status

	Averaging Time	California Standards ¹		National Standards ²	
		Concentration	Attainment Status	Concentration ³	Attainment Status
Ozone (O ₃)	8-Hour	0.070 ppm (137 µg/m ³)	Nonattainment ⁹	0.070 ppm	Nonattainment ⁴
	1-Hour	0.09 ppm (180 µg/m ³)	Nonattainment	Not Applicable	⁵
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Attainment ⁶
	1-Hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Attainment
Nitrogen Dioxide (NO ₂)	1-Hour	0.18 ppm (339 µg/m ³)	Attainment	0.100 ppm ¹¹	¹¹
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	Not Applicable	0.053 ppm (100 µg/m ³)	Attainment
Sulfur Dioxide (SO ₂) ¹²	24-Hour	0.04 ppm (105 µg/m ³)	Attainment	0.14 ppm (365 µg/m ³)	¹²
	1-Hour	0.25 ppm (655 µg/m ³)	Attainment	0.075 ppm (196 µg/m ³)	¹²
	Annual Arithmetic Mean	Not Applicable	Not Applicable	0.030 ppm (80 µg/m ³)	¹²
Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	Nonattainment ⁷	Not Applicable	Not Applicable
	24-Hour	50 µg/m ³	Nonattainment	150 µg/m ³	Unclassified
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	Nonattainment ⁷	15 µg/m ³ ¹⁵	Unclassified/ Attainment
	24-Hour	Not Applicable	Not Applicable	35 µg/m ³ ¹⁰	Nonattainment
Sulfates	24-Hour	25 µg/m ³	Attainment	Not Applicable	Not Applicable
Lead (Pb) ¹³	30-Day Average	1.5 µg/m ³	Not Applicable	Not Applicable	Attainment
	Calendar Quarter	Not Applicable	Not Applicable	1.5 µg/m ³	Attainment
	Rolling 3-Month Average ¹⁴	Not Applicable	Not Applicable	0.15 µg/m ³	¹⁴
Hydrogen Sulfide	1-Hour	0.010 ppm (26 µg/m ³)	Unclassified	Not Applicable	Not Applicable
Vinyl Chloride (chloroethene)	24-Hour	0.010 ppm (26 µg/m ³)	No Information Available	Not Applicable	Not Applicable
Visibility Reducing Particles	8-Hour (10:00 to 18:00 PST)	⁸	Unclassified	Not Applicable	Not Applicable

Source: Bay Area Attainment Status (BAAQMD 2017a).

Table footnotes are provided on the following page

- ¹ California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM₁₀, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the PM₁₀ annual standard), then some measurements may be excluded. In particular, measurements are excluded that the CARB determines would occur less than once per year on average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the State standard.
- ² National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates, and those based on annual averages are not to be exceeded more than once per year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the fourth-highest daily concentration is 0.070 ppm (70 ppb) or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM_{2.5} standard is attained when the 3-year average of 98th percentiles is less than 35 µg/m³.
Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM₁₀ is met if the 3-year average falls below the standard at every site. The annual PM_{2.5} standard is met if the 3-year average of annual averages spatially averaged across officially designed clusters of sites falls below the standard.
- ³ National air quality standards are set by the USEPA at levels determined to be protective of public health with an adequate margin of safety.
- ⁴ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over 3 years, is equal to or less than 0.070 ppm. The USEPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.
- ⁵ The national 1-hour ozone standard was revoked by the USEPA on June 15, 2005.
- ⁶ In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
- ⁷ In June 2002, the CARB established new annual standards for PM_{2.5} and PM₁₀.
- ⁸ Statewide Voluntary Remediation Program (VRP) Standard (except Lake Tahoe Air Basin): Particles in sufficient amounts to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
- ⁹ The 8-hour State ozone standard was approved by the CARB on April 28, 2005, and became effective on May 17, 2006.
- ¹⁰ On January 9, 2013, the USEPA issued a final rule to determine that the Bay Area attains the 24-hour PM_{2.5} national standard. This USEPA rule suspends key SIP requirements as long as monitoring data continue to show that the Bay Area attains the standard. Despite this USEPA action, the Bay Area will continue to be designated as "non-attainment" for the national 24-hour PM_{2.5} standard until such time as the air district submits a "redesignation request" and a "maintenance plan" to the USEPA and the USEPA approves the proposed redesignation.
- ¹¹ To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). The USEPA expects to make a designation for the Bay Area by the end of 2017.
- ¹² On June 2, 2010, the USEPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030-ppm annual and 0.14-ppm 24-hour SO₂ NAAQS however must continue to be used until 1 year following the USEPA initial designations of the new 1-hour SO₂ NAAQS. The USEPA expects to make designations for the Bay Area by the end of 2017.
- ¹³ The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
- ¹⁴ National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
- ¹⁵ In December 2012, the USEPA strengthened the annual PM_{2.5} NAAQS from 15.0 to 12.0 µg/m³. In December 2014, the USEPA issued final area designations for the 2012 primary annual PM_{2.5} NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

µg/m³ = micrograms per cubic meter

BAAQMD = Bay Area Air Quality Management District

CARB = California Air Resources Board

mg/m³ = milligrams per cubic meter

NAAQS = National Ambient Air Quality Standards

ppm = parts per million

SIP = State Implementation Plan

USEPA = United States Environmental Protection Agency

Table 4.5.D: Ambient Air Quality at the 897 Barron Avenue, Redwood City Monitoring Station

Pollutant	Standard	2020	2021	2022
Carbon Monoxide (CO)				
Maximum 1-hour concentration (ppm)		2.1	1.6	1.8
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		1.5	1.0	1.5
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O₃)				
Maximum 1-hour concentration (ppm)		0.095	0.085	0.079
Number of days exceeded:	State: > 0.09 ppm	0	1	0
Maximum 8-hour concentration (ppm)		0.077	0.064	0.061
Number of days exceeded:	State: > 0.07 ppm	1	0	0
	Federal: > 0.07 ppm	1	0	0
Coarse Particulates (PM₁₀)¹				
Maximum 24-hour concentration (µg/m ³)		137.1	45.1	41.0
Number of days exceeded:	State: > 50 µg/m ³	10	0	0
	Federal: > 150 µg/m ³	0	0	0
Annual arithmetic average concentration (µg/m ³)		24.6	19.6	ND
Exceeded for the year:	State: > 20 µg/m ³	Yes	No	ND
	Federal: > 50 µg/m ³	No	No	ND
Fine Particulates (PM_{2.5})				
Maximum 24-hour concentration (µg/m ³)		124.1	30.1	27.4
Number of days exceeded:	Federal: > 35 µg/m ³	9	0	0
Annual arithmetic average concentration (µg/m ³)		9.8	6.1	6.8
Exceeded for the year:	State: > 12 µg/m ³	No	No	No
	Federal: > 15 µg/m ³	No	No	No
Nitrogen Dioxide (NO₂)				
Maximum 1-hour concentration (ppm)		0.046	0.041	0.044
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.008	0.008	0.008
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO₂)^a				
Maximum 1-hour concentration (ppm)		0.0029	0.0018	0.0020
Number of days exceeded:	State: > 0.25 ppm	0	0	0
Maximum 24-hour concentration (ppm)		0.0008	0.0007	0.0009
Number of days exceeded:	State: > 0.04 ppm	0	0	0
	Federal: > 0.14 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.0002	0.0002	0.0002
Exceeded for the year:	Federal: > 0.030 ppm	No	0	0

Sources: Air Monitoring Site Map, San Mateo County, 897 Barron Avenue, Redwood City, ARB# 41541 (CARB and USEPA 2023).

¹ Data taken at the 156B Jackson Street air quality monitoring station in San Jose.

µg/m³ = micrograms per cubic meter

ND = No data. There were insufficient (or no) data results to determine the value.

ppm = parts per million

Pollutant monitoring results indicate that air quality in the San Mateo County area has generally been good. As indicated in the monitoring results, 1-hour ozone concentrations exceeded the State standard in 2021, and the 8-hour ozone concentrations exceeded the State and federal standards once in 2020. In addition, the State PM₁₀ standard was exceeded ten times in 2020. In addition, the federal PM_{2.5} standard was exceeded nine times in 2020. The CO, NO₂, and SO₂ standards were not exceeded in this area during the 3-year period.

In addition, the Office of Environmental Health Hazard Assessment (OEHHA), on behalf of the California Environmental Protection Agency (CalEPA), released Version 4.0 of the California Communities Environmental Health Screening Tool (CalEnviroScreen) in October 2021. CalEnviroScreen identifies California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. Pollution Burden scores for each census tract are derived from the average percentiles of the seven Exposures indicators (ozone and PM_{2.5} concentrations, diesel particulate matter emissions, drinking water contaminants, pesticide use, toxic releases from facilities, and traffic density) and the five Environmental Effects indicators (cleanup sites, impaired water bodies, groundwater threats, hazardous waste facilities and generators, and solid waste sites and facilities). According to the CalEnviroScreen 4.0 Map,¹³ the project site has a pollution burden percentile of 1. Other portions of the Bay Area have pollution burdens ranging from the lowest scores of between 1 and 10 percent and the second highest score of between 81 and 90 percent. In addition, according to the Senate Bill (SB) 535 Disadvantaged Communities Map,¹⁴ the project site is not designated as an SB 535 disadvantaged community.

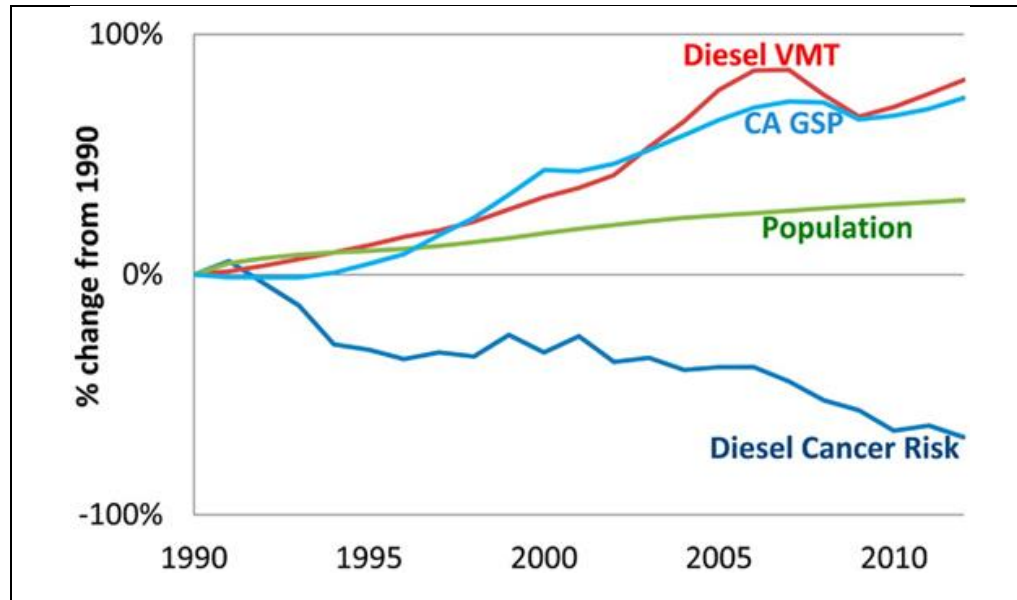
Toxic Air Contaminant Trends. In 1984, the CARB adopted regulations to reduce TAC emissions from mobile and stationary sources, as well as consumer products. A CARB study showed that ambient concentrations and emissions of the seven TACs responsible for the most cancer risk from airborne exposure declined by 76 percent between 1990 and 2012.¹⁵ Concentrations of diesel particulate matter, a key TAC, declined by 68 percent between 1990 and 2012, despite a 31 percent increase in State population and an 81 percent increase in diesel vehicle miles traveled (VMT), as shown on Figure 4.5-1. The study also found that the significant reductions in cancer risk to California residents from the implementation of air toxics controls are likely to continue.

¹³ Office of Environmental Health Hazard Assessment (OEHHA). 2021. *CalEnviroScreen 3.0*. Website: https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0/ (accessed August 2023).

¹⁴ Office of Environmental Health Hazard Assessment (OEHHA). 2018. *SB 535 Disadvantaged Communities using CalEnviroScreen 3.0 Results*. June. Website: <https://experience.arcgis.com/experience/1c21c53da8de48f1b946f3402fbac55c/page/SB-535-Disadvantaged-Communities/> (accessed August 2023).

¹⁵ Propper et al. 2015. Ambient and Emission Trends of Toxic Air Contaminants in California. *American Chemical Society: Environmental Science & Technology*. Website: pubs.acs.org/doi/full/10.1021/acs.est.5b02766 (accessed August 2021).

Figure 4.5-1: California Population, Gross State Product (GSP), Diesel Cancer Risk, and Diesel Vehicle Miles Traveled (VMT) Regulatory Context



Source: Ambient and Emission Trends of Toxic Air Contaminants in California (Propper et al. 2015).

The USEPA and the CARB regulate direct emissions from motor vehicles. The BAAQMD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

4.5.1.4 Regulatory Framework

The BAAQMD is primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as for monitoring ambient pollutant concentrations. BAAQMD's jurisdiction encompasses seven counties—Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa—and portions of Solano and Sonoma Counties. The USEPA and the CARB regulate direct emissions from motor vehicles.

The applicable federal, State, regional, and local regulatory framework is discussed below.

Federal Regulations. At the federal level, the USEPA has been charged with implementing national air quality programs. The USEPA air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990.

The FCAA required the USEPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified

to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The USEPA has the responsibility to review all state SIPs to determine conformity with the mandates of the FCAA and determine if implementation will achieve air quality goals. If the USEPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area, which imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated timeframe may result in sanctions on transportation funding and stationary air pollution sources in the air basin.

The USEPA is also required to develop National Emission Standards for Hazardous Air Pollutants, which are defined as those which may reasonably be anticipated to result in increased deaths or serious illness, and which are not already regulated. An independent science advisory board reviews the health and exposure analyses conducted by the USEPA on suspected hazardous pollutants prior to regulatory development.

State Regulations. The CARB is the agency responsible for the coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA), adopted in 1988. The CCAA requires that all air districts in the State achieve and maintain the CAAQS by the earliest practical date. The CCAA specifies that districts should focus on reducing the emissions from transportation and air-wide emission sources, and provides districts with the authority to regulate indirect sources.

The CARB is also primarily responsible for developing and implementing air pollution control plans to achieve and maintain the NAAQS. The CARB is primarily responsible for statewide pollution sources and produces a major part of the SIP. Local air districts provide additional strategies for sources under their jurisdiction. The CARB combines these data and submits the completed SIP to the USEPA.

Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), establishing CAAQS (which are more stringent than the NAAQS), determining and updating area designations and maps, and setting emissions standards for mobile sources, consumer products, small utility engines, and off-road vehicles. The CARB Diesel Risk Reduction Plan is intended to substantially reduce diesel particulate matter emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel —a step already implemented—and cleaner-burning diesel engines.¹⁶

Because of the robust evidence relating proximity to roadways and a range of non-cancer and cancer health effects, the CARB also created guidance for avoiding air quality conflicts in land use

¹⁶ California Air Resources Board (CARB). 2000b. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October. Prepared by the Stationary Source Division and Mobile Source Control Division. Website at: <https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rrpfinal.pdf> (accessed August 2021).

planning in its *Air Quality and Land Use Handbook: A Community Health Perspective*.¹⁷ In its guidance, the CARB advises that new sensitive uses (e.g., residences, schools, day care centers, playgrounds, and hospitals) not be located within 500 feet of a freeway or urban roads carrying 100,000 vehicles per day, or within 1,000 feet of a distribution center (warehouse) that accommodates more than 100 trucks or more than 90 refrigerator trucks per day.

The CARB guidance suggests that the use of these guidelines be customized for individual land use decisions, and take into account the context of proposed development projects. The Air Quality and Land Use Handbook specifically states that these recommendations are advisory and acknowledges that land use agencies must balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

Regional Regulations. The BAAQMD seeks to attain and maintain air quality conditions in the San Francisco Bay Area Air Basin through a comprehensive program of planning, regulation, enforcement, technical innovation, and education. The 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. The BAAQMD also inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by law.

Clean Air Plan. The Clean Air Plan guides the region's air quality planning efforts to attain the CAAQS.¹⁸ The BAAQMD 2017 Clean Air Plan, which was adopted on April 19, 2017, by the BAAQMD Board of Directors, is the current Clean Air Plan which contains district-wide control measures to reduce ozone precursor emissions (e.g., ROG and NO_x), particulate matter and greenhouse gas (GHG) emissions.

The Bay Area 2017 Clean Air Plan:

- Describes the BAAQMD plan towards attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities;
- Defines a vision for transitioning the region to a 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 achieve GHG reduction targets; and

¹⁷ California Environmental Protection Agency and California Air Resources Board (CalEPA and CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Website: www.arb.ca.gov/ch/handbook.pdf (accessed August 2021).

¹⁸ Bay Area Air Quality Management District (BAAQMD). 2017. *Final 2017 Clean Air Plan*. April 19, 2017b. Website: 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 August 2021).

- Includes a wide range of control measures designed to decrease emissions of air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other “Super-GHGs” that are potent climate pollutants in the near term; and to decrease emissions of carbon dioxide 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 risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program is being implemented in three phases that include 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 the 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 are focused on the most at-risk communities in the Bay Area.

For commercial and industrial sources, the 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.¹⁹ As part of ongoing efforts to identify and assess potential health risks to the public, the BAAQMD has collected and compiled air toxics emissions data from industrial and commercial sources of air pollution throughout the Bay Area. The BAAQMD has identified seven impacted communities;²⁰ the City of Belmont has not been identified as an affected community.²¹

BAAQMD CEQA Air Quality Guidelines. The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of 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

¹⁹ In general, a health risk assessment is required if the 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.

²⁰ The seven impacted communities include Richmond/San Pablo; eastern San Francisco, including Treasure Island; San Jose; western Alameda County; Concord, Vallejo; and Pittsburg/Antioch.

²¹ Bay Area Air Quality Management District (BAAQMD). 2014. *Community Air Risk Evaluation Program*. August 20. Website: <https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program> (accessed August 2021).

quality information. They also include recommended assessment methodologies for air toxics, odors, and GHG emissions.

In June 2010, the BAAQMD adopted updated draft CEQA Air Quality Guidelines and finalized them in May 2011. These guidelines superseded previously adopted agency air quality guidelines of 1999 and were intended to advise lead agencies on how to evaluate potential air quality impacts.

In 2023, the BAAQMD published an updated version of the CEQA Guidelines. The BAAQMD CEQA Guidelines include thresholds to evaluate project impacts in order to protectively evaluate the potential effects of the project on air quality. These protective thresholds are appropriate in the context of the size, scale, and location of the proposed project.

City of Belmont. The City of Belmont addresses air quality in the Conservation Element of its General Plan.²² The Conservation Element sets goals, policies, and actions that work to reduce emissions of ozone-producing pollutants and particulate matter to improve regional air quality and protect the health of Belmont and Bay Area residents. The following policies and actions are applicable to the proposed project.

- **Policy 5.10-1:** Coordinate air quality planning efforts with other local, regional, and State agencies.
 - **Action 5.10-1a:** Support the Bay Area Air Quality Management District's efforts to reduce pollution and improve air quality through the Spare the Air program, which includes restrictions on wood smoke pollution and transportation-related air pollution emissions.
- **Policy 5.10-3:** Ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate mitigation measures and best practices.
 - **Action 5.10-3a:** Require applicants proposing new development projects within the Planning Area to require their contractors, as a condition of contract, to reduce construction-related GHG emissions by implementing BAAQMD's recommended best management practices, including (but not limited to) the following measures (based on BAAQMD's (2011) CEQA Guidelines):
 - Use local building materials of at least 10 percent (sourced from within 100 miles of the planning area).
 - Recycle and reuse at least 50 percent of construction waste or demolition materials.
- **Policy 5.10-4:** Support land use, transportation management, infrastructure, and environmental planning programs that reduce vehicle emissions and improve air quality.

²² City of Belmont. 2017a. *City of Belmont 2035 General Plan, Conservation Element*. November 14.

- **Policy 5.10-5:** Provide information about non-toxic alternatives to construction, interior and exterior finishes and furnishings, and planting and landscaping maintenance to contractors, business owners and homeowners to enhance indoor and outdoor air quality and reduce exposure to toxins.
- **Policy 5.10-6:** Ensure compliance with the most current Bay Area Clean Air Plan by implementing the Plan's recommended Transportation Control Measures (TCMs).

4.5.2 Impacts and Mitigation Measures

This section provides an assessment of the potential impacts related to air quality that could result from implementation of the proposed project. The section begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this section presents potential impacts associated with implementation of the proposed project and identifies mitigation measures, as appropriate.

4.5.2.1 Significance Criteria

The project would result in a significant impact related to air quality if it would:

- 1) Conflict with or obstruct implementation of the applicable air quality plan;
- 2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under an applicable federal or State ambient air quality standard;
- 3) Expose sensitive receptors to substantial pollutant concentrations; or
- 4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

According to the BAAQMD CEQA Guidelines, to meet air quality standards for criteria air pollutant and air precursor impacts, the proposed project must not:

- Contribute to CO concentrations exceeding the State ambient air quality standards;
- Generate average daily construction emissions of ROG, NO_x or PM_{2.5} (exhaust) greater than 54 pounds per day or PM₁₀ exhaust emissions greater than 82 pounds per day; or
- Generate operational emissions of ROG, NO_x or PM_{2.5} of greater than 10 tons per year or 54 pounds per day or PM₁₀ emissions greater than 15 tons per year or 82 pounds per day.

4.5.2.2 Project Impacts

The following section discusses the potential air quality impacts associated with implementation of the proposed project.

1) Conflict with or obstruct implementation of the applicable air quality plan

The applicable air quality plan is the BAAQMD's 2017 Bay Area Clean Air Plan (Clean Air Plan).²³ The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The 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 most heavily affected by air pollution; and reduce GHG emissions to protect the climate. Consistency with the Clean Air Plan can be determined if a project: (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 measures from the Clean Air Plan. Following is an evaluation of the proposed project's consistency with each of these criteria and, as discussed below, the proposed project would not conflict with the Clean Air Plan goals or control measures and would not obstruct its implementation. Therefore, this impact would be less than significant.

Clean Air Plan Goals. The primary goals of the Clean Air Plan are to: attain air quality standards; reduce population exposure and protect public health in the Bay Area; and reduce GHG emissions and protect climate.

The BAAQMD has established significance thresholds for project construction and operational impacts at a level at which the cumulative impact of exceeding these thresholds would have an adverse impact on the region's attainment of air quality standards. The health and hazards thresholds were established to help protect public health. As discussed in more detail in the analysis below, implementation of the proposed project would result in less-than-significant operation-period emissions and, with implementation of Mitigation Measure AIR-1, the project would result in less-than-significant construction-period emissions. Therefore, the project would not conflict with the Clean Air Plan goals.

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

Stationary Source Control Measures. The Stationary Source 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 the BAAQMD and then enforced by BAAQMD Permit and Inspection programs. Since the proposed project would not include any such stationary sources, the Stationary Source Measures of the Clean Air Plan are not applicable to the project.

²³ Bay Area Air Quality Management District (BAAQMD). 2017b. *Final 2017 Clean Air Plan*. April 19, 2017. Website: 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 August 2021).

Transportation Control Measures. The BAAQMD identifies Transportation Measures as part of the Clean Air Plan 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/research and development (R&D) building that would locate employees near existing residential, institutional, educational, office, and open space uses, reducing the demand for travel by single occupancy vehicles. The proposed project would also develop a Transportation Demand Management (TDM) plan to provide trip reduction measures and reduce vehicle traffic in and around the project site (refer to Section 4.4, Transportation). In addition, the project area is served by public transit facilities and the proposed project would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single occupancy vehicles. Therefore, the project would promote BAAQMD initiatives to reduce vehicle trips and VMT, to the extent feasible, and would increase the use of alternate means of transportation.

Energy Control Measures. The Clean Air Plan also includes Energy 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 decreasing the carbon intensity of the electricity used by switching to less GHG-intensive fuel sources for electricity generation. Since these measures apply to electrical utility providers and local government agencies (and not individual projects), the Energy Control Measures of the Clean Air Plan are not applicable to the proposed project. However, the proposed project would comply with current California Green Building Standards Code (CALGreen) standards. The proposed project would reduce the demand for utilities and infrastructure by incorporating drought-tolerant, non-invasive plants, efficient irrigation, and low-flow fixtures. In addition, the proposed building would be all electric, and would not include any gas service or connections. Therefore, the proposed project would comply with applicable Energy Measures.

Building Control Measures. The 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 over local building codes, to facilitate adoption of best GHG control practices and policies. Therefore, the Building Control Measures of the Clean Air Plan are not applicable to the proposed project. However, the proposed project would comply with CALGreen standards.

Agriculture Control Measures. The Agriculture Control Measures are designed to primarily reduce emissions of methane. Since the project does not include any agricultural activities, the Agriculture Control Measures of the Clean Air Plan are not applicable to the project.

Natural and Working Lands Control Measures. The Natural and Working Lands Control Measures focus on increasing carbon sequestration on rangelands and wetlands, as well as encouraging local governments to adopt ordinances that promote urban tree plantings. Since the proposed project does not include the disturbance of any rangelands or wetlands,

the Natural and Working Lands Control Measures of the Clean Air Plan are not applicable to the project.

Waste Management Control Measures. The Waste Management Measures 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 services). Therefore, the project would be consistent with the Waste Management Control Measures of the Clean Air Plan.

Water Control Measures. The Water Control Measures focus on reducing emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works (POTWs), and promoting the use of biogas recovery systems. Since these measures apply to POTWs and local government agencies (and not individual projects), the Water Control Measures are not applicable to the proposed project.

Super GHG Control Measures. Super GHGs include GHGs with very high global warming potential, such as methane, black carbon, and fluorinated gases. The Super-GHG Control Measures are designed to facilitate the adoption of best GHG control practices and policies through the BAAQMD and local government agencies. Since these measures do not apply to individual projects, the Super-GHG Control Measures are not applicable to the proposed project.

Clean Air Plan Implementation. As discussed above, the proposed project would generally implement the applicable measures outlined in the Clean Air Plan, including Transportation Control Measures. Therefore, the proposed project would not disrupt or hinder implementation of a control measure from the current Clean Air Plan, and this impact would be less than significant.

2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under an applicable federal or State ambient air quality standard

The BAAQMD is currently designated as a nonattainment area for State and national ozone standards and national particulate matter ambient air quality standards. BAAQMD nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, 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 would be considered significant.

In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for 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 to the region's existing air quality conditions. The following sections describe the proposed project's construction- and operation-related air quality impacts and CO impacts.

Construction Emissions. During construction of the proposed project, short-term degradation of air quality may occur due to the release of particulate matter emissions (e.g., fugitive dust) generated by demolition, grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly-emitted particulate matter (PM_{2.5} and PM₁₀), and TACs such as diesel exhaust particulate matter.

Impact AIR-1: Construction of the proposed project would generate air pollutant emissions that could violate air quality standards. (S)

Site preparation and project construction would involve demolition, grading, paving, and other activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The BAAQMD has established standard measures for reducing fugitive dust emissions (PM₁₀). With the implementation of these Basic Construction Mitigation Measures, fugitive dust emissions from construction activities would not result in adverse air quality impacts.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, ROGs and some soot particulate (PM_{2.5} and PM₁₀) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2020.4.0, consistent with BAAQMD recommendations. As stated in Chapter 3.0, Project Description, the proposed project would include demolition of the existing building and surface parking lot on the project site, resulting in approximately 944 cubic yards of demolition waste, which was included in CalEEMod. In addition, it is anticipated that a total of 4,950 cubic yards of soil would be excavated and 1,300 cubic yards would be used for fill. Approximately 3,650 cubic yards of cut soil would be exported from the site in a total of 365 truck trips. Construction of the proposed project is anticipated to begin in spring 2024 and last 16 months. Other construction details are not yet known; therefore, default assumptions (e.g., construction

equipment and worker trips) from CalEEMod were used. This analysis assumes the use of Tier 2 construction equipment, which would be used during construction of the project. Construction-related emissions are presented in Table 4.5.E. CalEEMod output sheets are included in Appendix G.

As shown in Table 4.5.E, construction ROG, NO_x, and PM_{2.5} and PM₁₀ exhaust emissions would be below the BAAQMD's thresholds. However, to ensure that construction-period PM_{2.5} and PM₁₀ fugitive dust emissions would be reduced to a less-than-significant level, the BAAQMD requires the implementation of BAAQMD Basic Construction Mitigation Measures. Therefore, Mitigation Measure AIR-1, which requires implementation of dust controls during project construction would be required and would reduce construction-related air quality impacts of PM₁₀ and PM_{2.5} and fugitive dust emissions, consistent with BAAQMD Basic Construction Mitigation Measures.

Table 4.5.E: Project Construction Emissions in Pounds Per Day

Project Construction	ROG	NO _x	Exhaust PM ₁₀	Fugitive Dust PM ₁₀	Exhaust PM _{2.5}	Fugitive Dust PM _{2.5}
Average Daily Emissions	2.8	17.9	0.6	0.8	0.6	0.3
BAAQMD Thresholds	54.0	54.0	82.0	BMPs	54.0	BMPs
Exceed Threshold?	No	No	No	No	No	No

Source: Compiled by LSA (August 2021).

BAAQMD = Bay Area Air Quality Management District

BMP = Best Management Practices

NO_x = nitrogen oxides

PM₁₀ = particulate matter less than 10 microns in aerodynamic diameter

PM_{2.5} = particulate matter less than 2.5 microns in aerodynamic diameter

ROG = reactive organic gases

Mitigation Measure AIR-1

In order to meet the BAAQMD fugitive dust threshold, the following BAAQMD Basic Construction (Best Management Practice) Mitigation Measures shall be implemented:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

- Idling times shall be minimized either 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 Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City of Belmont regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
(LTS)

With implementation of Mitigation Measure AIR-1, construction-related air quality impacts would be less than significant.

Operational Emissions. Long-term air pollutant emission impacts that would result from the proposed project are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment).

PM₁₀ emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM₁₀ occurs when vehicle tires pulverize small rocks and pavement, and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other particulate matter emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions result from activities in buildings for which electricity is used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity) and the emission factor of the fuel source. Major sources of energy demand include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics, such as refrigerators or computers. Greater building or appliance efficiency reduces the amount of energy for a given activity and thus lowers the resultant emissions. The emission factor is determined by the fuel source, with cleaner energy sources, like renewable energy, producing fewer emissions than conventional sources. As identified in Chapter 3.0, Project Description, the proposed project would not include any gas service or connections.

Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the project would include emissions from the use of landscaping equipment and the use of consumer products.

Long-term operational emissions associated with the proposed project were calculated using CalEEMod. Trip generation rates used in CalEEMod for the project were based on the project's trip generation estimates, which assume the proposed R&D use would typically generate approximately 750 net new average daily trips, and the fire station would typically generate 36 average daily trips (refer to Table 4.4.B in Section 4.4, Transportation, for trip generation estimates).²⁴ In addition, the proposed project would comply with current CALGreen standards and would incorporate drought-tolerant, non-invasive plants, efficient irrigation, and low-flow fixtures, which were included in the CalEEMod modeling assumptions. When project-specific data were not available, default assumptions from CalEEMod were used to estimate project emissions. Model results are shown in Table 4.5.F. CalEEMod output sheets are included in Appendix G.

Table 4.5.F: Project Operational Emissions

	ROG	NO _x	PM ₁₀	PM _{2.5}
Pounds Per Day				
Area Source Emissions	2.2	<0.1	<0.1	<0.1
Energy Source Emissions	0.1	0.6	<0.1	<0.1
Mobile Source Emissions	2.2	2.4	4.1	1.1
Total Emissions	4.5	3.0	4.1	1.1
BAAQMD Thresholds	54.0	54.0	82.0	54.0
Exceed Threshold?	No	No	No	No
Tons Per Year				
Area Source Emissions	0.4	<0.1	<0.1	<0.1
Energy Source Emissions	<0.1	0.1	<0.1	<0.1
Mobile Source Emissions	0.4	0.4	0.7	0.2
Total Emissions	0.8	0.5	0.7	0.2
BAAQMD Thresholds	10.0	10.0	15.0	10.0
Exceed Threshold?	No	No	No	No

Source: Compiled by LSA (August 2021).

BAAQMD = Bay Area Air Quality Management District

NO_x = nitrogen oxides

PM₁₀ = particulate matter less than 10 microns in aerodynamic diameter

PM_{2.5} = particulate matter less than 2.5 microns in aerodynamic diameter

ROG = reactive organic gases

²⁴ As noted in Section 4.4, Transportation, of this Draft EIR, the proposed project would be anticipated to generate approximately 718 new daily vehicle trips. The air quality analysis was prepared for a prior version of the proposed project that was estimated to generate 750 new daily vehicle trips. Therefore, the impacts described in this section are conservative as the mobile source emissions are slightly overstated.

The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on release or, in the case of vehicle emissions associated with the project, emissions are released in other areas of the Air Basin. The daily and annual emissions associated with project operational trip generation, energy, area, and stationary sources are identified in Table 4.5.F. The results shown in Table 4.5.F indicate the project would not exceed the significance criteria for ROG, NO_x, PM₁₀ or PM_{2.5} emissions; therefore, the proposed project would not have a significant effect on regional air quality, and mitigation measures would not be required. This impact would be less than significant.

Localized CO Impacts. Emissions and ambient concentrations of CO have decreased dramatically in the Bay Area with the introduction of the catalytic converter in 1975. No exceedances of the State or federal CO standards have been recorded at Bay Area monitoring stations since 1991. BAAQMD CEQA Guidelines include recommended methodologies for quantifying concentrations of localized CO levels for proposed development projects.

A screening level analysis using guidance from the BAAQMD CEQA Guidelines was performed to determine the impacts of the project. The screening methodology provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD CEQA Guidelines, a proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

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

The Air Basin has been designated attainment under both the NAAQS and the CAAQS for CO. Therefore, the proposed project would not have the potential to substantially increase CO hotspots at intersections in Belmont.

Implementation of the proposed project would not conflict with the San Mateo County Transportation Authority's congestion management program for designated roads or highways, a regional transportation plan, or other agency plans. As further discussed in Section 4.4, Transportation, the proposed project would generate approximately 95 AM and 85 PM net new peak hour trips; therefore, the project's contribution to peak-hour traffic volumes at intersections in the vicinity of the project site would be well below 44,000 vehicles per hour. Therefore, the proposed project would not result in localized CO concentrations that exceed State or federal standards, and this impact would be less than significant.

3) Expose sensitive receptors to substantial pollutant concentrations

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. The nearest sensitive receptors to the project site are Ralston Middle School and Crystal Springs Upland Middle School, which are adjacent to the project site. There are also a few single-family homes within 200 feet of the northern property line of the project site, but they are on the opposite side of Ralston Avenue.

According to the BAAQMD, a project would result in a significant impact related to TAC exposure if it would: individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 10.0 in one million, an increased non-cancer risk greater than 1.0 on the hazard index (chronic or acute), or an annual average ambient $PM_{2.5}$ increase greater than $0.3 \mu g/m^3$. A significant cumulative impact would occur if the project, in combination with other projects located within a 1,000-foot radius of the project site, would expose sensitive receptors to TACs resulting in an increased cancer risk greater than 100.0 in one million, an increased non-cancer risk greater than 10.0 on the hazard index (chronic), or an ambient $PM_{2.5}$ increase greater than $0.8 \mu g/m^3$ on an annual average basis. Potential impacts associated with the proposed project are discussed below.

Project Construction – Toxic Air Contaminants. A construction HRA, which evaluates construction-period health risk to off-site receptors, was performed for the proposed project, and the analysis is presented below. The project site is located near existing residential uses that could be exposed to diesel emission exhaust during the construction period.

Impact AIR-2: Construction of the proposed project would expose nearby sensitive receptors to toxic air contaminants. (S)

To estimate the potential cancer risk associated with construction of the proposed project from equipment exhaust (including diesel particulate matter), a dispersion model was used to translate an emission rate from the source location to a concentration at the receptor location of interest (i.e., a nearby residence and worksites). Dispersion modeling varies from a simpler, more conservative screening-level analysis to a more complex and refined detailed analysis. This refined assessment was conducted using the CARB exposure methodology with the air dispersion modeling performed using the USEPA dispersion model AERMOD. The model provides a detailed estimate of exhaust concentrations based on site and source geometry, source emissions strength, distance from the source to the receptor, and meteorological data.

Table 4.5.G, below, identifies the results of the analysis assuming the use of Tier 2 construction equipment, as proposed by the project, at the maximally exposed individual (MEI), which is the nearest sensitive receptor. Model snap shots depicting the locations of all sensitive receptors, including the MEI, are shown in Appendix H of this EIR.

Table 4.5.G: Unmitigated Inhalation Health Risks from Project Construction to Off-Site Receptors

	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Maximally Exposed Individual	32.7	0.108	0.000	0.507
Threshold	10.0	1.0	1.0	0.30
Exceed?	Yes	No	No	Yes

Source: Compiled by LSA (August 2021).

µg/m³ = micrograms per cubic meterPM_{2.5} = particulate matter less than 2.5 microns in aerodynamic diameter

As shown in Table 4.5.G, the risk associated with project construction at the MEI would be 32.7 in one million, which would exceed the BAAQMD cancer risk of 10 in one million. The total chronic hazard index would be 0.108, which is below the threshold of 1.0. In addition, the total acute hazard index would be nominal (0.000), which would also not exceed the threshold of 1.0. The results of the analysis indicate that the total PM_{2.5} concentration would be 0.507 µg/m³, which would exceed the BAAQMD significance threshold of 0.30 µg/m³. As indicated above, the cancer risk of 32.7 in one million and PM_{2.5} concentration of 0.507 would exceed BAAQMD thresholds. Therefore, implementation of Mitigation Measure AIR-2 would be required to reduce substantial pollutant concentrations during project construction.

Mitigation Measure AIR-2 During construction of the proposed project, the project contractor shall ensure all off-road diesel-powered construction equipment of 50 horsepower or more used for the project construction at a minimum meets the California Air Resources Board's Tier 2 emissions standards equipped with Level 3 diesel particulate filters or the equivalent.

Table 4.5.H identifies the results of the analysis with implementation of Mitigation Measure AIR-2.

Table 4.5.H: Mitigated Inhalation Health Risks from Project Construction to Off-Site Receptors

	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Maximally Exposed Individual	5.6	0.017	0.000	0.080
Threshold	10.0	1.0	1.0	0.30
Exceed?	No	No	No	No

Source: Compiled by LSA (August 2021).

µg/m³ = micrograms per cubic meterPM_{2.5} = particulate matter less than 2.5 microns in aerodynamic diameter

As shown in Table 4.5.H, the mitigated cancer risk at the MEI would be 5.6 in one million, which would not exceed the BAAQMD cancer risk of 10 in one million. In addition, the mitigated PM_{2.5} concentration would be 0.080 µg/m³, which would not exceed the BAAQMD significance threshold of 0.30 µg/m³. Therefore, with implementation of Mitigation Measure AIR-2, construction of the proposed project would not exceed BAAQMD thresholds and would not expose nearby sensitive receptors to substantial pollutant concentrations, and this impact would be less than significant.

Project Operation – Toxic Air Contaminants. Operation of the project would not include any stationary sources of toxic air contaminants. Additionally, emissions from project operations are not expected to exceed the BAAQMD’s numeric regional mass daily emission thresholds.

The BAAQMD’s project level thresholds are based in part on Section 180(e) of the Clean Air Act. The project-level thresholds are intended to provide a means of consistency in significance determination within the environmental review process.

Notwithstanding, if a project were to simply exceed the BAAQMD’s project level thresholds, this would not constitute a particular health impact to a nearby individual. The reason for this is that the project-level thresholds are in pounds/day and tons/year emitted into the air, whereas health effects are determined based on the concentration of a pollutant in the air at a particular location (e.g., ppm by volume of air or µg/m³ of air). CAAQS and NAAQS were developed to protect the most susceptible population groups from adverse health effects and were established in terms of ppm or µg/m³ for the applicable emissions.

The daily and annual emissions associated with project operational trip generation, energy, and area sources are identified in Table 4.5.F for ROG, NO_x, PM₁₀, and PM_{2.5}. The results shown in Table 4.5.F indicate the project would not exceed the significance criteria for ROG, NO_x, PM₁₀, or PM_{2.5} emissions. The increase in emissions associated with the proposed project would be a small fraction of the Air Basin’s emissions.

Therefore, the emissions associated with implementation of the proposed project would not be expected to exceed the most stringent applicable NAAQS or CAAQS for NO_x, PM_{2.5}, and PM₁₀. It should be noted that these ambient air quality standards are developed and represent levels at which the most susceptible persons (children and the elderly) are protected. In other words, the ambient air quality standards are purposefully set low to protect children, the elderly, and those with existing respiratory problems.

Furthermore, air quality trends for emissions of NO_x, ROG, and ozone (which is a byproduct of NO_x and ROG) have been trending downward within the Air Basin even as development has increased over the last several years. Therefore, implementation of the proposed project is not expected to result in any basin-wide increase in health effects. As such, impacts are considered less than significant.

4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

During construction, the various diesel-powered vehicles and equipment in use on site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project site. The potential for diesel odor impacts is therefore considered less than significant.

Odor impacts could result from siting a new odor source near existing sensitive receptors or siting a new sensitive receptor near an existing odor source. The BAAQMD considers a significant odor impact as a substantial number of odor complaints, specifically, more than five confirmed complaints per year average over the past 3 years. Examples of land uses that have the potential to generate considerable odors include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants.

The proposed life science office uses are not expected to produce any offensive odors that would result in frequent odor complaints. Therefore, implementation of the proposed project would not create objectionable odors affecting a substantial number of people, and impacts would be less than significant.

4.5.2.3 Cumulative Impacts

According to the BAAQMD, regional air pollution is largely a cumulative impact. No single project is sufficient in size to independently create regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts.

The BAAQMD is currently designated as a nonattainment area for State and national ozone standards and national particulate matter ambient air quality standards. BAAQMD nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, 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 would be considered significant.

In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for 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 to the region's existing air quality conditions.

Therefore, if the proposed project's daily average or annual emissions of construction- or operational-related criteria air pollutants exceed any applicable threshold established by the BAAQMD, the proposed project would result in a considerable contribution to a cumulatively significant impact. As shown in Tables 4.5.E and 4.5.F, implementation of the proposed project

would not generate significant construction or operational emissions. As shown in the project-specific air quality impacts discussion above, the proposed project would not result in individually significant impacts and, therefore, the proposed project would not result in a cumulatively considerable contribution to regional air quality impacts. Cumulative impacts would be considered less than significant.

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4.6 GREENHOUSE GAS EMISSIONS

This section summarizes existing greenhouse gas (GHG) emissions and discusses global climate change, its causes, and the contribution of human activities. This section also estimates the likely GHG emissions that would result from construction and operational activities associated with development of the proposed project, including vehicular traffic, energy consumption and other emission sources. Mitigation measures are recommended, where appropriate, to reduce potential impacts to a less-than-significant level. The analysis performed for this section is based on Bay Area Air Quality Management District (BAAQMD) *California Environmental Quality Act (CEQA) Air Quality Guidelines*.¹

4.6.1 Setting

The following describes existing GHG emissions in the City of Belmont (City), beginning with typical GHG types and sources, impacts of global climate change, the regulatory framework surrounding these issues, and current emission levels.

4.6.1.1 Background

The following section provides background information on GHGs and global climate change.

Global Climate Change. Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose $0.6 \pm 0.2^\circ$ Celsius ($^\circ\text{C}$) or $1.1 \pm 0.4^\circ$ Fahrenheit ($^\circ\text{F}$) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.²

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are the following:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)

¹ Bay Area Air Quality Management District (BAAQMD). 2023. *2022 CEQA Air Quality Guidelines*. April 20.

² The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, GHGs like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of GHG results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO₂, methane, and N₂O, some gases, like HFCs, PFCs, and SF₆ are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this air quality analysis, the term “GHGs” will refer collectively only to the six gases listed above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e). Table 4.6.A shows the GWP for each type of GHG. For example, sulfur hexafluoride is 23,900 times more potent at contributing to global warming than carbon dioxide.

Table 4.6.A: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide	50–200	1
Methane	12	25
Nitrous Oxide	114	310
HFC-23	270	11,700
HFC-134a	14	140
HFC-152a	1.4	140
PFC: Tetrafluoromethane (CF ₄)	50,000	6,500
PFC: Hexafluoromethane (C ₂ F ₆)	10,000	9,200
Sulfur Hexafluoride (SF ₆)	3,200	23,900

Source: *Second Update to the Climate Change Scoping Plan: Building on the Framework* (CARB 2017b).
Website: www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents (accessed August 2023).

The following summarizes the characteristics of the six GHGs and black carbon. Black carbon also contributes to climate change and is therefore discussed below.

Carbon Dioxide. In the atmosphere, carbon generally exists in its oxidized form, as CO₂. Natural sources of CO₂ include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter and evaporation from the oceans. Human caused sources of CO₂ include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO₂ each year, far outweighing the 7 billion tons of man-made emissions of CO₂ each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO₂, and consequently, the gas is building up in the atmosphere.

In 2020, total annual CO₂ emissions in California were approximately 269.2 million tons, accounting for approximately 80.2 percent of California's overall GHG emissions.³ Transportation is the single largest source of CO₂ in California, which is primarily comprised of on-road travel. Electricity production, industrial and residential sources also make important contributions to CO₂ emissions in California.

Methane. Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH₄ emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation in dairy cows, manure management, and rice cultivation are also significant sources of CH₄ in California. Total annual emissions of CH₄ in California were approximately 38.8 million tons, accounting for approximately 10.5 percent of GHG emissions in California in 2020.

Nitrous Oxide. Nitrous oxide is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N₂O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N₂O emissions in California. Nitrous oxide emissions were approximately 12.9 million tons and accounted for approximately 3.5 percent of GHG emissions in California in 2020.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.⁴ PFCs and SF₆ are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the

³ California Air Resources Board (CARB). 2022. GHGs Descriptions & Sources in California. Website: <https://ww2.arb.ca.gov/ghg-descriptions-sources> (accessed August 2023).

⁴ The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

semiconductor industry has resulted in greater use of PFCs. HFCs, PFCs, and SF₆ accounted for about 5.8 percent of GHG emissions in California in 2020.⁵

Black Carbon. Black carbon is the most strongly light-absorbing component of particulate matter formed by burning fossil fuels such as coal, diesel, and biomass. Black carbon is emitted directly into the atmosphere in the form of particulate matter less than 2.5 microns in size (PM_{2.5}) and is the most effective form of particulate matter, by mass, at absorbing solar energy. Per unit of mass in the atmosphere, black carbon can absorb one million times more energy than CO₂.⁶ Black carbon contributes to climate change both directly, such as absorbing sunlight, and indirectly, such as affecting cloud formation. However, because black carbon is short-lived in the atmosphere, it can be difficult to quantify its effect on global-warming.

Most U.S. emissions of black carbon come from mobile sources (52 percent), particularly from diesel fueled vehicles.⁷ The other major source of black carbon is open biomass burning, including wildfires, although residential heating and industry also contribute. Black carbon emissions in the U.S. are projected to decline substantially by 2030, largely due to controls on new mobile diesel emissions.⁸

Effects of Global Climate Change. Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global climate change may also result in impacts to local air quality from increased ground-level ozone and particulate matter.⁹

Additionally, according to the 2006 California Climate Action Team (CAT) Report,¹⁰ the following climate change effects, which are based on trends established by the United Nations Intergovernmental Panel on Climate Change (IPCC), can be expected in California over the course of the next century:

⁵ CARB. 2022. GHGs Descriptions & Sources in California. Website: <https://ww2.arb.ca.gov/ghg-descriptions-sources> (accessed August 2023).

⁶ United States Environmental Protection Agency (USEPA). 2017a. Black Carbon, Basic Information. February 14, 2017. Website: [19january2017snapshot.epa.gov/www3/airquality/blackcarbon/basic.html](https://www.epa.gov/air-quality/black-carbon/basic.html) (accessed August 2021).

⁷ Ibid.

⁸ Ibid.

⁹ United States Environmental Protection Agency (USEPA). 2020a. Air Quality and Climate Change Research. Website: <https://www.epa.gov/air-research/air-quality-and-climate-change-research> (accessed August 2021).

¹⁰ California Environmental Protection Agency (CalEPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

- The loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;¹¹
- Rise in global average sea level, primarily due to thermal expansion and melting of glaciers and ice caps in the Greenland and Antarctic ice sheets;¹²
- Changes in weather that include widespread changes in precipitation, ocean salinity, wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;¹³
- Decline of the Sierra snowpack, which accounts for approximately one-half of the surface water storage in California by 70 percent to as much as 90 percent over the next 100 years;¹⁴
- Increase in the number of days conducive to ozone (O₃) formation by 25 to 85 percent (depending on the future temperature scenario) in high O₃ areas of Los Angeles and the San Joaquin Valley by the end of the 21st century;¹⁵ and
- High potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level.¹⁶

A summary of these potential effects is provided in Table 4.6.B.

Emissions Inventories. An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, and California GHG emission inventories.

Global Emissions. Worldwide emissions of GHGs in 2020 totaled 22.9 billion metric tons of CO₂e. Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change.¹⁷

¹¹ California Environmental Protection Agency (CalEPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

¹² Ibid.

¹³ Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. February.

¹⁴ California Environmental Protection Agency (CalEPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ United Nations Framework Convention on Climate Change (UNFCCC). 2022. GHG Data from UNFCCC. Website: https://di.unfccc.int/time_series (accessed August 2023).

Table 4.6.B: Potential Impacts of Global Warming and Expected Consequences for California

Potential Water Resource Impacts	Anticipated Consequences Statewide
Reduction of the State's average annual snowpack	- Decline of the Sierra snowpack leading to a loss in half of the surface water storage in California by 70% to 90% over the next 100 years - Potential loss of 5 million acre-feet or more of average annual water storage in the State's snowpack - Increased challenges for reservoir management and balancing the competing concerns of flood protection and water supply - Higher surface evaporation rates with a corresponding increase in tropospheric water vapor
Rise in average sea level	- Potential economic impacts related to coastal tourism, commercial fisheries, coastal agriculture, and ports - Increased risk of flooding, coastal erosion along the State's coastline, seawater intrusion into the Sacramento-San Joaquin River Delta (Delta) and levee systems
Changes in weather	- Changes in precipitation, ocean salinity, and wind patterns - Increased likelihood for extreme weather events, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones
Changes in the timing, intensity, location, amount, and variability of precipitation	- Potential increased storm intensity and increased potential for flooding - Possible increased potential for droughts - Long-term changes in vegetation and increased incidence of wildfires - Changes in the intensity and timing of runoff - Possible increased incidence of flooding and increased sedimentation - Sea level rise and inundation of coastal marshes and estuaries - Increased salinity intrusion into the Delta - Increased potential for Delta levee failure - Increased potential for salinity intrusion into coastal aquifers (groundwater) - Increased potential for flooding near the mouths of rivers due to backwater effects
Increased water temperatures	- Increased environmental water demand for temperature control - Possible increased problems with foreign invasive species in aquatic ecosystems - Potential adverse changes in water quality, including the reduction of dissolved oxygen levels - Possible critical effects on listed and endangered aquatic species
Changes in urban and agricultural water demand	Changes in demand patterns and evapotranspiration
Increase in the number of days conducive to ozone (O ₃) formation	- Increased temperatures - Potential health effects, including adverse impacts to respiratory systems

Source: *Environmental Water Account Draft Supplemental EIS/EIR to the Environmental Water Account Final EIS/EIR, Bureau of Reclamation Mid-Pacific Region, Sacramento, California* (U.S. Department of the Interior 2007).

EIS/EIR = Environmental Impact Statement/Environmental Impact Report

United States Emissions. In 2021, the year for which the most recent data are available, the United States emitted about 6,340.2 million metric tons of CO₂e (MMT CO₂e). Overall, emissions in 2021 increased by 6 percent relative to the 2020 total GHG emissions. This increase in total GHG emissions was driven by fossil fuel combustion due primarily to economic activity rebounding after the height of the COVID-19 pandemic. However, GHG emissions in 2021 are 17 percent below those of 2005 levels. Of the five major sectors (i.e., residential and commercial, agricultural, industry, transportation, and electricity generation), transportation

accounted for the highest amount of GHG emissions in 2021 (approximately 28 percent), with electricity generation second at 25 percent and emissions from industry third at 23 percent.¹⁸

State of California Emissions. The State emitted approximately 369.2 MMT CO₂e emissions in 2020, 35.3 MMT CO₂e lower than 2019 levels and 61.8 MMT CO₂e below the 2020 GHG limit of 431 MMT CO₂e.¹⁹ The California Air Resources Board (CARB) estimates that transportation was the source of approximately 37 percent of the State's GHG emissions in 2020, which is a smaller share than recent years, as the transportation sector saw a significant decrease of 26.6 MMT CO₂e in 2020, likely due in large part to the impact of the COVID-19 pandemic. The next largest sources included industrial sources at approximately 20 percent and electricity generation at 16 percent. The remaining sources of GHG emissions were commercial and residential activities at 10 percent, agriculture at 9 percent, high GWP at 6 percent, and waste at 2 percent.²⁰ It is expected that emissions have increased again since 2020, primarily due to economic activity rebounding after the height of the COVID-19 pandemic.

San Francisco Bay Area Emissions. In 2015, 85 MMT CO₂e of GHGs were emitted in the Bay Area.²¹ The transportation sector (including on-road motor vehicles, locomotives, ships and boats, and aircraft) contributed 41 percent of GHG emissions and stationary sources (including oil refineries and natural gas combustion) contributed 26 percent of GHG emissions in the Bay Area. Energy production activities such as electricity generation and co-generation were the third largest contributor with approximately 14 percent of the total GHG emissions. Buildings contributed 10 percent, fluorinated gases contributed 4 percent, waste contributed 3 percent, and agriculture contributed 1 percent of the total GHG emissions.

City of Belmont Emissions. As shown in Table 4.6.C below, in the base year of 2005, the City of Belmont emitted approximately 167,648 metric tons of CO₂e (MT CO₂e) most of which was the result of transportation (57 percent) and residential, commercial, and industrial building energy use (38 percent).²² Based on the 2005 emissions inventory, the City projected a forecast of future emissions for the year 2020 and 2035. The emission forecast represents a business-as-usual (BAU) prediction of how GHG emissions would grow in the absence of GHG policy. Table 4.6.C, below, summarizes the results of the forecast.

¹⁸ United States Environmental Protection Agency (USEPA). 2021. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021 Website: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks> (accessed August 2023).

¹⁹ California Air Resources Board (CARB). 2022. *California Greenhouse Gas Emissions for 2000 to 2020, Trends of Emissions and Other Indicators Report*. Website: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf (accessed June 2023).

²⁰ Ibid.

²¹ Bay Area Air Quality Management District (BAAQMD). 2017b. *Final 2017 Clean Air Plan*. April 19, 2017. Website: 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 August 2021).

²² City of Belmont. 2017b. *City of Belmont Climate Action Plan*.

Table 4.6.C: City of Belmont Greenhouse Gas Emissions Inventory

Pollutant	2005 (MT CO ₂ e/yr)	2013 (MT CO ₂ e/yr)	2020 BAU Emissions (MT CO ₂ e/yr)	2035 BAU Emissions (MT CO ₂ e/yr)
Residential	42,134	38,778	40,584	44,457
Commercial/Industrial	21,052	19,730	21,208	25,825
Transportation	100,554	97,490	99,608	122,515
Transportation – Off-Road Equipment	5,790	2,742	3,191	3,254
Generated Waste	3,908	311	421	369
Total	167,648	159,051	165,013	196,422

Source: City of Belmont Climate Action Plan (City of Belmont 2017).

BAU = business-as-usual

MT CO₂e/yr = metric tons of carbon dioxide equivalent per year

4.6.1.2 Regulatory Framework

This section describes applicable regulations related to GHG emissions at the federal, State, regional, and local level.

Federal Regulations. The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the United States Environmental Protection Agency (USEPA) has the authority to regulate CO₂ emissions under the federal Clean Air Act. While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the Clean Air Act, finding that six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

State Regulations. The CARB is the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 1493 (2002). In a response to the transportation sector's significant contribution to California CO₂ emissions, Assembly Bill (AB) 1493 was enacted on July 22, 2002. AB 1493 requires the CARB to set GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. These standards (starting in model years 2009 to 2016) were approved by the CARB in 2004, but the needed waiver of Clean Air Act Preemption was not granted by the USEPA until June 30, 2009. The CARB responded by amending its original regulation, now referred to as Low Emission Vehicle III, to take effect for model years starting in 2017 to 2025.

Executive Order S-3-05 (2005). Executive Order (EO) S-3-05 was signed by the Governor on June 1, 2005, which proclaimed that California is vulnerable to the impacts of climate change. To combat those concerns, the executive order established California GHG emissions reduction targets, which established the following goals:

- GHG emissions should be reduced to 2000 levels by 2010;
- GHG emissions should be reduced to 1990 levels by 2020; and
- GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

The Secretary of the California Environmental Protection Agency (CalEPA) is required to coordinate efforts of various State agencies in order to collectively and efficiently reduce GHGs. A biannual progress report must be submitted to the Governor and State legislature disclosing the progress made toward GHG emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, the coastline, and forestry, and report possible mitigation and adaptation plans to address these impacts.

The Secretary of CalEPA leads the Climate Action Team (CAT) comprised of representatives from State agencies as well as numerous other boards and departments. CAT members work to coordinate statewide efforts to implement global warming emission reduction programs and the State Climate Adaptation Strategy. The CAT is also responsible for reporting on the progress made toward meeting the statewide GHG targets that were established in the executive order and further defined under AB 32, the "Global Warming Solutions Act of 2006." The first CAT Report to the Governor and State legislature was released in March 2006, and it presented 46 specific emission reduction strategies for reducing GHG emissions and reaching the targets established in the executive order. The most recent CAT Report to the Governor and State legislature was released in December 2010.

Assembly Bill 32 (2006), California Global Warming Solutions Act. California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 MMT CO₂e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies that California will implement to achieve the reduction of approximately 169 MMT of CO₂e, or approximately 30 percent, from the State's projected 2020 emission level of 596 MMT of CO₂e under a business-as-usual scenario (a reduction of 42 MMT CO₂e, or almost 10 percent from 2002 to 2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO₂e);
- The Low-Carbon Fuel Standard (15.0 MMT CO₂e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO₂e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO₂e).

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related GHG targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high-speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO₂e by 2020.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA-equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade program took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020, and also sets the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan, and it also evaluated how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. The CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 target set by EO B-30-15 and codified by SB 32.²³ The 2030 target is to reduce GHG emissions to 40 percent below 1990 levels by 2030.

The 2022 Scoping Plan²⁴ was approved in December 2022 and assesses progress towards achieving the SB 32 2030 target and lays out a path to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

²³ California Air Resources Board (CARB). 2017a. *California's 2017 Climate Change Scoping Plan*. November. Website: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf (accessed August 2023).

²⁴ California Air Resources Board (CARB). 2021. *2022 Scoping Plan Update*. May 10. Website: <https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf> (accessed August 2023).

Senate Bill 97 (2007). Senate Bill (SB) 97, signed into law in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the State Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA.

The California Natural Resources Agency adopted the amendments to the CEQA Guidelines in January 2010, which went into effect in March 2010. The amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs when they perform individual project analyses.

Senate Bill 375 (2008). Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, the CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). The CARB may update the targets every 4 years and must update them every 8 years. MPOs in turn must demonstrate how their plans, policies and transportation investments meet the targets set by the CARB through Sustainable Community Strategies (SCS). The SCS are included with the Regional Transportation Plan (RTP), a report required by State law. However, if an MPO finds that their SCS will not meet the GHG reduction target, they may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets.

Executive Order B-30-15 (2015). The Governor signed EO B-30-15 on April 29, 2015, which added the immediate target:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. The CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. SB 350, signed by the Governor on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent; and
- Increasing energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other non-renewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to state energy agencies under existing law. The addition made by this legislation requires state energy agencies to plan for and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016, the Legislature passed, and the Governor signed, SB 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in the April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps the State on the path toward achieving the 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an IPCC analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO₂e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by the CARB was posted in December 2016.

Senate Bill 100 (SB 100). On September 10, 2018, the Governor signed SB 100, which raises California's Renewable Portfolio Standard (RPS) requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. EO B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." EO B-55-18 directs the CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO₂e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Assembly Bill (AB) 1279. AB 1279 was signed in September of 2022, and codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant state agencies to achieve these goals.

Title 24, Building Standards Code and CALGreen Code. In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen), which sets performance standards for residential and nonresidential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen code was most recently updated in 2022 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2023.

Cap and Trade. The development of a cap-and-trade program was included as a key reduction measure of the CARB AB 32 Climate Change Scoping Plan. The cap-and-trade program will help put California on the path to meet its goal of achieving an 80 percent reduction of GHG emissions from 1990 levels by 2050. The cap-and-trade emissions trading program developed by the CARB took effect on January 1, 2012, with enforceable compliance obligations beginning January 1, 2013. The cap-and-trade program aims to regulate GHG emissions from the largest producers in the State by setting a statewide firm limit, or cap, on allowable annual GHG emissions. The cap was set in 2013 at approximately 2 percent below the emissions forecast for 2020. In 2014, the cap declined approximately 2 percent. Beginning in 2015 and continuing through 2020, the cap has been declining approximately 3 percent annually. The CARB administered the first auction on November 14, 2012, with many of the qualified bidders representing corporations or organizations that produce large amounts of GHG emissions, including energy companies, agriculture and food industries, steel mills, cement companies, and universities. On January 1, 2015, compliance obligation began for distributors of transportation fuels, natural gas, and other fuels. California is working closely with British Columbia, Ontario, Quebec, and Manitoba through the Western Climate Initiative to develop harmonized cap-and-trade programs that will deliver cost-effective emission reductions. Two lawsuits have been filed against cap-and-trade, but the cap-and-trade program will be implemented as-is until further notice.²⁵

Executive Order N-79-20. EO N-79-20, which was signed by the Governor on September 23, 2020, sets the following goals for the State: 100 percent of in-State sales of new passenger cars and trucks shall be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the State shall be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and 100 percent of off-road vehicles and equipment in the State shall be zero-emission by 2035, where feasible. Several regulations have been promulgated by CARB to support the achievement of these goals.

Regional Regulations. Regional regulations that are applicable to GHG emissions generated by the proposed project are implemented by the Metropolitan Transportation Commission (MTC), the Association of Bay Area Governments (ABAG), and the BAAQMD, as discussed below.

Plan Bay Area 2050. 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 (SCS) as part of a Regional Transportation

²⁵ California Air Resources Board (CARB). 2014. Cap-and-Trade Program. Website: www.arb.ca.gov/cc/capandtrade/capandtrade.htm (accessed August 2021).

Plan. In the Bay Area, MTC and ABAG are jointly responsible for developing and adopting an SCS that integrates transportation, land use, and housing to meet GHG reduction targets set by the CARB. Plan Bay Area 2050 includes 11 goals and 35 performance targets covering four broad areas: housing, economic, transportation, and environmental. These targets enable the plan to be evaluated by its performance in areas identified as key regional concerns, including equitable access, economic vitality and transportation system effectiveness.

Bay Area Air Quality Management District. The BAAQMD is the regional government agency that regulates sources of air pollution within the nine Bay Area counties. The BAAQMD regulates GHG emissions through the following plans, programs, and guidelines.

Clean Air Plan. The Clean Air Plan guides the region's air quality planning efforts to attain the CARB's California Ambient Air Quality Standards (CAAQS).²⁶ The BAAQMD 2017 Clean Air Plan, which was adopted on April 19, 2017, by the BAAQMD Board of Directors, is the current Clean Air Plan which contains district-wide control measures to reduce ozone precursor emissions (e.g., reactive organic gases [ROG] and nitrogen oxide [NO_x]), particulate matter, and GHG emissions. The Bay Area 2017 Clean Air Plan:

- Describes the BAAQMD's plan towards attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities;
- Defines a vision for transitioning the region to a 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 achieve GHG reduction targets; and
- Includes a wide range of control measures designed to decrease emissions of air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "Super Greenhouse Gases" that are potent climate pollutants in the near term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

BAAQMD Climate Protection Program. The BAAQMD established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the Air Basin. The climate protection program includes measures that promote energy efficiency, reduce vehicle miles traveled, and develop alternative sources of energy, all of which assist in reducing GHG emissions and in reducing air pollutants that affect the health of residents. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical

²⁶ Bay Area Air Quality Management District (BAAQMD). 2017b. Final 2017 Clean Air Plan. April 19, 2017. Website: 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 August 2021).

assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

BAAQMD's CEQA Air Quality Guidelines. The BAAQMD California Environmental Quality Act (CEQA) Air Quality Guidelines were prepared to assist in the evaluation of 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, the BAAQMD adopted an updated draft of the CEQA Air Quality Guidelines and finalized them in May 2011. These guidelines superseded previously adopted agency air quality guidelines of 1999 and were intended to advise lead agencies on how to evaluate potential air quality impacts.

In 2023, the BAAQMD published an updated version of the CEQA Air Quality Guidelines. The CEQA Air Quality Guidelines include thresholds to evaluate project impacts in order to protectively evaluate the potential effects of the project on air quality. These protective thresholds are appropriate in the context of the size, scale, and location of the project.

Under the CEQA Air Quality Guidelines, a local government may prepare a Qualified Greenhouse Gas Reduction Strategy that is consistent with the State's 2030 and 2045 goals. If a project is consistent with an adopted qualified Greenhouse Gas Reduction Strategy and General Plan that addresses the project's GHG emissions, it can be presumed that the project will not have significant GHG emissions under CEQA.

The CEQA Air Quality Guidelines also identify applicable GHG significant thresholds. The BAAQMD recommends these thresholds of significance for use in determining whether a proposed project will have a significant impact related to climate change. These thresholds evaluate a project based on its effect on California's efforts to meet the State's long-term climate goals. Applying this approach, the BAAQMD identifies and provides supporting documentation, outlining the requirements for new land use development projects necessary to achieve California's long-term climate goal of carbon neutrality by 2045. Based on their analysis, the BAAQMD found that new land use development projects need to incorporate design elements to do its "fair share" to implement the goal of carbon neutrality by 2045. If a project is designed and built to incorporate the identified design elements, then it will contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and an agency reviewing the project under CEQA can conclude that the project will not make a cumulatively considerable contribution to global climate change. The document concludes that if a project does not incorporate these design elements, then it should be found to make a significant climate impact because it will hinder California's efforts to address climate change.

City of Belmont. The City of Belmont addresses global climate change and GHG emissions in the General Plan and Climate Action Plan, as well as the Municipal Code.

General Plan. The City of Belmont addresses air quality in the Conservation Element of its General Plan.²⁷ The Conservation Element sets goals, policies, and actions that work to reduce emissions of GHGs to 15 percent below the 2005 baseline levels by 2020 and to 50 percent below the 2005 baseline levels by 2035. The following policies and actions are applicable to the proposed project.

- **Policy 5.11-1:** Adopt a Climate Action Plan that incorporates a Greenhouse Gas Emissions Reduction Plan, which quantifies current and anticipated future emissions and focuses on feasible actions the City can take to minimize the adverse impacts of General Plan implementation on climate change and air quality.
 - **Action 5.11-1a:** Maintain an inventory of greenhouse gas emissions from City operations and track related solid waste, energy, economic, and environmental data. Update the inventory periodically as additional data and methodologies become available.
- **Policy 5.11-2:** Support the Climate Action Plan's goals and implement the CAP's reduction measures and strategies to reduce greenhouse gas emissions.
 - **Action 5.11-2a:** Support local actions that will reduce motor vehicle use, support alternative forms of transportation, improve energy efficiency, require energy conservation in new construction, and manage energy in public buildings, in accordance with State law.
 - **Action 5.11-2b:** Periodically monitor and report the City's progress in reducing greenhouse gas emissions and meeting State targets.
- **Policy 5.11-3:** Support and implement the Climate Action Plan's adaptation strategies and measures that promote resiliency to climate change impacts, such as sea level rise, extreme heat events, regional drought, and increased flooding.
- **Policy 5.11-4:** Support and participate in regional efforts to reduce greenhouse gas emissions and implement adaptation strategies.

Climate Action Plan. Concurrent with the 2035 General Plan, the City of Belmont prepared and adopted the City of Belmont Climate Action Plan (CAP).²⁸ The CAP contains strategies and measures that will be implemented in Belmont to reduce GHG emissions. The City's CAP proposes a 2020 emissions reduction target equivalent to 15 percent below 2005 emissions levels and a 2035 emissions reduction target equivalent to 50 percent below 2005 emissions levels.

The CAP sets three goals below that seek to reduce GHG emissions in Belmont. Each goal includes a number of specific measures that are described in the CAP. Some measures aim to

²⁷ City of Belmont. 2017a. *City of Belmont 2035 General Plan, Conservation Element*. November 14.

²⁸ City of Belmont. 2017b. *City of Belmont Climate Action Plan*.

reduce emissions from the community at large, while other measures may specifically focus on the operations of the City of Belmont.

- **Energy:** Increase municipal, residential, and commercial energy efficiency, renewable energy, efficient water use, and green building.
- **Transportation and Land Use:** Reduce emissions from transportation through efficient land use, alternate modes of transportation, and operational innovations.
- **Solid Waste:** Reduce solid waste generated and sent to landfills.

Municipal Code. The City of Belmont Municipal Code, Chapter 7 Article IV, Division 10 adopts the 2022 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), as amended. The Code also applies reach code standards that prohibit the use of natural gas and require electric vehicle parking and charging capabilities for new development within the city. For Class B office space, a minimum of 20 percent of vehicle parking spaces must be electric vehicle charging compliant.

4.6.2 Impacts and Mitigation Measures

The following section presents a discussion of the impacts related to GHG emissions that could result from implementation of the proposed project.

A single project typically does not generate a sufficient quantity of GHG emissions to affect global climate change; therefore, the global climate change impacts of the proposed project are discussed in the context of cumulative impacts, following the approach recommended by the BAAQMD. This section begins by establishing the thresholds to determine whether an impact is significant and then analyzes GHG emissions both quantitatively and qualitatively. The latter part of this section evaluates the GHG emissions expected to result from the project and the recommended feasible mitigation measures, if required.

4.6.2.1 Significance Criteria

Per Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to GHG emissions if it would:

- 1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- 2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

According to the BAAQMD *CEQA Guidelines*, a project would have a less-than-significant impact related to GHG emissions if it would:

- A. 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 State CEQA Guidelines.
 2. Transportation
 - 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
 - b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
- B. Or be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

If a project does not incorporate these design elements, then a project would result in a significant GHG impact.

4.6.2.2 Project Impacts

The following section describes potential impacts associated with GHG emissions that could occur with development of the proposed project.

1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment

As discussed above, a project would have a less-than-significant impact related to GHG emissions if it would include the project design elements related to natural gas, energy, VMT, and electric vehicles or if it would be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). The City's CAP previously met these requirements

and was designed to streamline environmental review of future development projects in the City; however, the CAP established the following GHG reduction targets: achieving 15-percent GHG emissions reduction below the baseline year (2005) levels by 2020 and 50 percent below 2005 levels by 2035. Since the proposed project would not be operational until 2024 and because the City's CAP was prepared based on the State's 2020 GHG targets, which are now superseded by State policies (i.e., the 2019 California Green Building Code) and the 2030 GHG targets established in SB 32, the City's CAP would not be applicable for CEQA streamlining under the BAAQMD thresholds. Therefore, this section evaluates the proposed project's consistency with the BAAQMD's project design elements. As discussed below, this impact would be potentially significant but could be reduced to a less-than-significant level with incorporation of recommended mitigation measures.

Impact GHG-1: The proposed project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (S)

Natural Gas Usage. As required by the BAAQMD, the project must not include natural gas appliances or natural gas plumbing. As discussed in Chapter 3.0, Project Description, the proposed building would be all electric, and would not include any natural gas service or connections. Since the proposed project would not include natural gas, the proposed project would be consistent with this design element.

Energy Usage. The project must not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines. Energy usage associated with the proposed project was evaluated in Section 3.6, Energy, of the Initial Study (Appendix B). As discussed in the Initial Study, energy use consumed by the proposed project would be associated with electricity consumption and fuel used for vehicle trips associated with the project. Energy consumption was estimated for the project using default energy intensities by land use type in the California Emissions Estimator Model (CalEEMod) output, which is included in Appendix G.²⁹

As identified in the Initial Study, the estimated potential increased electricity demand associated with the proposed project is 823,458 kilowatt-hours (kWh) per year. In 2021, the year for which the most recent data was available, California consumed approximately 280,738 gigawatt-hours (GWh) or 280,738,376,720 kWh.³⁰ Of this total, San Mateo County consumed 4,157 GWh or 4,157,271,751 kWh.³¹ Therefore, electricity demand associated with the proposed project would only be approximately 0.02 percent of San Mateo County's total electricity demand.

The proposed project would also result in energy usage associated with gasoline to fuel project-related trips. As discussed in the Initial Study, vehicle trips associated with the proposed project

²⁹ As noted in Section 4.4, Transportation, of this Draft EIR, the proposed project would be anticipated to generate approximately 718 new daily vehicle trips. The GHG analysis was prepared for a prior version of the proposed project that was estimated to generate 750 new daily vehicle trips. Therefore, the impacts described in this section are conservative as energy use from automobiles is slightly overstated.

³⁰ California Energy Commission (CEC). 2023. Energy Consumption Data Management Service. Electricity Consumption by County. Website: www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed August 2023).

³¹ Ibid.

would consume approximately 84,916 gallons of gasoline per year. In 2015, vehicles in California consumed approximately 15.1 billion gallons of gasoline.³² Therefore, gasoline demand generated by vehicle trips associated with the proposed project would be a minimal fraction of gasoline consumption in California.

The proposed project would be constructed to current Title 24 standards, which would require energy saving building features. The analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines, as shown in the Initial Study, found that the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. As such, the proposed project would be consistent with this design element.

Vehicle Miles Traveled. In order to meet the BAAQMD's VMT threshold, the project must achieve a reduction in project-generated 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 SB 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. As discussed in Section 4.4, Transportation, the Countywide VMT tool was used to estimate average VMT per employee based on the location of the project site, the proposed land use, project characteristics, multimodal infrastructure, parking information, and transportation demand management (TDM) program elements. The analysis found that proposed project's VMT would exceed the applicable VMT threshold of significance. Therefore, the proposed project would not achieve a reduction in project-generated 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. As described in Section 4.4, Transportation, the estimated VMT accounts for the implementation of the proposed project's TDM program. The proposed project's TDM program results in the maximum VMT reduction possible. Therefore, there are no additional feasible or realistic mitigation measures currently available that would reduce this impact to a less-than-significant level. As such, this impact would be significant and unavoidable.

Electric Vehicle Requirements. This criterion requires that the project achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2. The current CALGreen Tier 2 requires that a minimum of 20 percent of the parking spaces provide EV charging. The proposed project would include 215 striped parking spaces with 17 EV charging spaces. As such the proposed project would provide 8 percent of the parking spaces for EV charging, which is less than the 20 percent minimum required by CALGreen Tier 2, resulting in a potentially significant impact. Implementation of Mitigation Measure GHG-1 would increase the EV parking spaces to be consistent with this criterion.

³² California Energy Commission (CEC). 2017. California Gasoline Data, Facts, and Statistics. Website: www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics (accessed August 2021).

Mitigation Measure GHG-1 The project sponsor shall provide a minimum of 20 percent of the parking spaces as EV charging stations as part of the final project design, to be consistent with current CALGreen Tier 2 standards. The final design including these revisions shall be incorporated. (SU)

With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with the BAAQMD's project design elements related to natural gas, energy, and electric vehicles. However, the proposed project would not achieve the required VMT reductions and no feasible mitigation measures exist to reduce this impact. Therefore, the proposed project would not be consistent with the BAAQMD's GHG emission thresholds. As such, the proposed project would result in the generation of GHG emissions would have a significant impact on the environment. This impact would be considered significant and unavoidable.

2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs

Applicable plans adopted for the purpose of reducing GHG emissions include the Scoping Plan, the Plan Bay Area, and the City's CAP. As such, the proposed project was evaluated for consistency with those plans to demonstrate whether the proposed project would conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the GHG emissions.

Scoping Plan. The following discussion evaluates the proposed project according to the goals of the 2022 Scoping Plan, EO B-30-15, SB 32, and AB 197.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. The CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 target set by EO B-30-15 and codified by SB 32.³³ SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. SB 32 builds on AB 32 and keeps the State on the path toward achieving the 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by the CARB was posted in December 2016.

The 2022 Scoping Plan assesses progress toward the statutory 2030 target while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

³³ California Air Resources Board (CARB). 2017b. *Second Update to the Climate Change Scoping Plan: Building on the Framework*. Website: www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents (accessed August 2023).

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California will be zero-emission by 2035, and all other fleets will have transitioned to zero-emission as fully possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

As identified above, the 2022 Scoping Plan contains GHG reduction measures that work towards reducing GHG emissions, consistent with the targets set by EO B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as qualitatively discussed below.

Energy Measures. Energy-efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As identified in Chapter 3.0, Project Description, the proposed project would comply with current CALGreen standards. Therefore, the proposed project would comply with applicable energy measures.

Water Conservation and Efficiency Measures. Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As identified in Chapter 3.0, the proposed project would incorporate drought-tolerant, non-invasive plants, efficient irrigation, and low-flow fixtures. In addition, CALGreen standards include a variety of different measures, including reduction of wastewater and water use. Therefore, the proposed project would comply with applicable water conservation and efficiency measures.

Transportation and Motor Vehicle Measures. The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025, resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. The majority of vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. Therefore, the proposed project would comply with applicable transportation and motor vehicle measures.

The proposed project would develop an office/research and development (R&D) building that would locate employees near existing residential, institutional, educational, office, and open space uses, reducing the demand for travel by single-occupancy vehicles. The proposed project would also develop a Transportation Demand Management (TDM) plan to provide trip reduction measures and reduce vehicle traffic in and around the project site (refer to Section 4.4, Transportation). In addition, the project area is served by public transit facilities and the proposed project would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single-occupancy vehicles.

In addition, the 2022 Scoping Plan includes key project attributes that reduce operational GHG emissions in Appendix D, Local Actions³⁴, of the 2022 Scoping Plan. A summary of the proposed project's consistency with the 2022 Scoping Plan's key project attributes identified in Appendix B of the 2022 Scoping Plan is shown in Table 4.6.D.

Plan Bay Area. As described above, Plan Bay Area 2050 is a State-mandated, integrated long-range transportation and land use plan. Plan Bay Area 2050 includes 11 goals and 35 performance targets covering four broad areas: housing, economic, transportation, and environmental. These targets enable the plan to be evaluated by its performance in areas identified as key regional concerns, including equitable access, economic vitality, and transportation system effectiveness. Table 4.6.E includes an evaluation of the proposed project's consistency with Plan Bay Area 2050 goals and performance targets. The proposed project does not include residential uses; therefore, the proposed project is not evaluated for consistency with the housing strategies.

Belmont Climate Action Plan. As discussed above, the City's CAP contains strategies and measures that will be implemented in Belmont to reduce GHG emissions. The City's CAP proposes a 2020 emissions reduction target equivalent to 15 percent below 2005 emissions levels and a 2035 emissions reduction target equivalent to 50 percent below 2005 emissions levels.

The CAP sets three goals below that seek to reduce GHG emissions from Belmont. Each goal includes a number of specific measures that are described in the CAP. Some measures aim to reduce emissions from the community at large, while other measures may specifically focus on the operations of the City of Belmont.

- **Energy:** Increase municipal, residential, and commercial energy efficiency, renewable energy, efficient water use, and green building.
- **Transportation and Land Use:** Reduce emissions from transportation through efficient land use, alternate modes of transportation, and operational innovations.
- **Solid Waste:** Reduce solid waste generated and sent to landfills.

Table 4.6.F includes an analysis of the proposed project's consistency with the CAP measures.

³⁴ California Air Resources Board (CARB). 2022b. *2022 Scoping Plan, Appendix D Local Actions*. November. Website: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf> (accessed August 2023).

Table 4.6.D: Project Consistency with 2022 Scoping Plan Key Project Attributes

Priority Areas	Key Project Attribute	Project Consistency
Transportation Electrification	Provides EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval.	Consistent with Mitigation Measure GHG-1. With implementation of Mitigation Measure GHG-1, the project sponsor shall provide a minimum of 20 percent of the parking spaces as EV charging stations as part of the final project design, to be consistent with current CALGreen Tier 2 standards. The final design including these revisions shall be incorporated. With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with this key project attribute.
	Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).	Consistent. The proposed project would redevelop the project site with an office/R&D building that would locate employees near existing residential, institutional, educational, office, and open space uses. In addition, the project site is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer). The proposed project would be consistent with this key project attribute.
VMT Reduction	Does not result in the loss or conversion of natural and working lands.	Consistent. The project site is developed with an existing commercial building and is designated Office Commercial (COM-O) in the City's General Plan and is zoned Executive Office and Warehouse (E2.2). The proposed project does not consist of natural or working lands; therefore, the proposed project would be consistent with this key project attribute.
	Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre), or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region's SCS.	Consistent. The proposed project would develop an office/R&D building that would locate employees near existing residential, institutional, educational, office, and open space uses, reducing the demand for travel by single-occupancy vehicles. The proposed project would also develop a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the project site. In addition, the project area is served by public transit facilities and the proposed project would provide bicycle and pedestrian facilities and would represent an overall improvement to bicycle and pedestrian access and circulation in the vicinity of the project site, which would also help to reduce the demand for travel by single-occupancy vehicles, consistent with the intent of this key attribute.
	Reduces parking requirements by: eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or providing residential parking supply at a ratio of less than one parking space per dwelling unit; or for multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.	Consistent. The proposed project would not install fewer on-site parking spaces; however, the proposed project would develop a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the project site. The TDM measures would encourage employees to utilize other transportation options and rely less on driving alone, consistent with the intent of this key attribute.
	At least 20 percent of units included are affordable to lower-income residents.	Not Applicable. The proposed project would not include residential uses.
	Results in no net loss of existing affordable units.	Consistent. The proposed project would not result in a net loss of existing affordable units. The proposed project would be consistent with this key project attribute.

Table 4.6.D: Project Consistency with 2022 Scoping Plan Key Project Attributes

Priority Areas	Key Project Attribute	Project Consistency
Building Decarbonization	Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking	Consistent. The proposed building would be all electric, and would not include any gas service or connections. The proposed project would be consistent with this key project attribute.

Source: Compiled by LSA (August 2023).

AC = air conditioning

CALGreen = California Green Building Standards Code

EV = electric vehicle

GHG = greenhouse gas

LEED = Leadership in Energy and Environmental Design

R&D = research and development

SB = Senate Bill

SOV = single-occupancy vehicle

TDM = Transportation Demand Management

VMT = vehicle miles traveled

Table 4.6.E: Project Consistency with Plan Bay Area 2050

Goal	Target	Project Consistency
Economic Strategies		
Improve Economic Mobility	EC1. Implement a statewide universal basic income. Provide an average \$500 per month payment to all Bay Area households to improve family stability, promote economic mobility and increase consumer spending.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	EC2. Expand job training and incubator programs. Fund assistance programs for establishing new businesses, as well as job training programs, primarily in historically disinvested communities.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	EC3. Invest in high-speed internet in underserved low-income communities. Provide direct subsidies and construct public infrastructure to ensure all communities have affordable access to high-speed internet.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
Shift the Location of Jobs	EC4. Allow greater commercial densities in Growth Geographies. Allow greater densities for new commercial development in select Priority Development Areas and Transit-Rich Areas to encourage more jobs to locate near public transit.	Consistent. The proposed project would develop an office/R&D building that would locate employees near existing residential, institutional, educational, office, and open space uses. In addition, the project area is served by public transit facilities and the proposed project would provide bicycle and pedestrian facilities, consistent with the intent of this measure.
	EC5. Provide incentives to employers to shift jobs to housing-rich areas well served by transit. Provide subsidies to encourage employers to relocate offices to housing-rich areas near regional rail stations.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	EC6. Retain and invest in key industrial lands. Implement local land use policies to protect key industrial lands, identified as Priority Production Areas, while funding key infrastructure improvements in these areas.	Consistent. The project site is developed with an existing commercial building and is designated Office Commercial (COM-O) in the City's General Plan and is zoned Executive Office and Warehouse (E2.2). The proposed project would redevelop the project site with an office/R&D building, consistent with the intent of this measure.
Transportation Strategies		
Maintain and Optimize the Existing System	T1. Restore, operate and maintain the existing system. Commit to operate and maintain the Bay Area's roads and transit infrastructure while reversing pandemic-related cuts to total transit service hours.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	T2. Support community-led transportation enhancements in Equity Priority Communities. Provide direct funding to historically marginalized communities for locally identified transportation needs.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	T3. Enable a seamless mobility experience. Eliminate barriers to multi-operator transit trips by streamlining fare payment and trip planning while requiring schedule coordination at timed transfer hubs.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.

Table 4.6.E: Project Consistency with Plan Bay Area 2050

Goal	Target	Project Consistency
	T4. Reform regional transit fare policy. Streamline fare payment and replace existing operator- specific discounted fare programs with an integrated fare structure across all transit operators.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	T5. Implement per-mile tolling on congested freeways with transit alternatives. Apply a per-mile charge on auto travel on select congested freeway corridors where transit alternatives exist, with discounts for carpoolers, low-income residents, and off-peak travel; and reinvest excess revenues into transit alternatives in the corridor.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	T6. Improve interchanges and address highway bottlenecks. Rebuild interchanges and widen key highway bottlenecks to achieve short- to medium-term congestion relief.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	T7. Advance other regional programs and local priorities. Fund regional programs like motorist aid and 511 while supporting local transportation investments on arterials and local streets.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
Create Healthy and Safe Streets	T8. Build a Complete Streets network. Enhance streets to promote walking, biking and other micro-mobility through sidewalk improvements, car-free slow streets, and 10,000 miles of bike lanes or multi-use paths.	Consistent. The proposed project would develop an office/R&D building that would locate employees near existing residential, institutional, educational, office, and open space uses, reducing the demand for travel by single-occupancy vehicles. The proposed project would also develop a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the project site. In addition, the project area is served by public transit facilities and the proposed project would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single-occupancy vehicles, consistent with the intent of this measure.
	T9. Advance regional Vision Zero policy through street design and reduced speeds. Reduce speed limits to between 20 and 35 miles per hour on local streets and 55 miles per hour on freeways, relying on design elements on local streets and automated speed enforcement on freeways.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
Build a Next-Generation Transit Network	T10. Enhance local transit frequency, capacity and reliability. Improve the quality and availability of local bus and light rail service, with new bus rapid transit lines, South Bay light rail extensions, and frequency increases focused in lower-income communities.	Not Applicable. This strategy is not applicable as the proposed project would consist of an office/R&D building.

Table 4.6.E: Project Consistency with Plan Bay Area 2050

Goal	Target	Project Consistency
	T11. Expand and modernize the regional rail network. Better connect communities while increasing frequencies by advancing the Link21 new transbay rail crossing, BART to Silicon Valley Phase 2, Valley Link, Caltrain Downtown Rail Extension and Caltrain/High-Speed Rail grade separations, among other projects.	Not Applicable. This strategy is not applicable as the proposed project would consist of an office/R&D building.
	T12. Build an integrated regional express lanes and express bus network. Complete the buildout of the regional express lanes network to provide uncongested freeway lanes for new and improved express bus services, carpools and toll-paying solo drivers.	Not Applicable. This strategy is not applicable as the proposed project would consist of an office/R&D building.
Environmental Strategies		
Reduce Risks From Hazards	EN1. Adapt to sea level rise. Protect shoreline communities affected by sea level rise, prioritizing low-cost, high-benefit solutions and providing additional support to vulnerable populations.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	EN2. Provide means-based financial support to retrofit existing residential buildings. Adopt building ordinances and incentivize retrofits to existing buildings to meet higher seismic, wildfire, water and energy standards, providing means-based subsidies to off set associated costs.	Not Applicable. This strategy is not applicable as the proposed project would not consist of a building retrofit.
	EN3. Fund energy upgrades to enable carbon neutrality in all existing commercial and public buildings. Support electrification and resilient power system upgrades in all public and commercial buildings.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
Expand Access to Parks and Open Space	EN4. Maintain urban growth boundaries. Using urban growth boundaries and other existing environmental protections, focus new development within the existing urban footprint or areas otherwise suitable for growth, as established by local jurisdictions.	Consistent. The proposed project would develop an office/R&D building that would locate employees near existing residential, institutional, educational, office, and open space uses.
	EN5. Protect and manage high-value conservation lands. Provide strategic matching funds to help conserve and maintain high-priority natural and agricultural lands, including but not limited to, Priority Conservation Areas and wildland-urban interface areas.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
	EN6. Modernize and expand parks, trails and recreation facilities. Invest in quality parks, trails and open spaces that provide inclusive recreation opportunities for people of all backgrounds, abilities and ages to enjoy.	Not Applicable. This strategy is not applicable as the proposed project would consist of an office/R&D building.

Table 4.6.E: Project Consistency with Plan Bay Area 2050

Goal	Target	Project Consistency
Reduce Climate Emissions	EN7. Expand commute trip reduction programs at major employers. Set a sustainable commute target for major employers as part of an expanded Bay Area Commuter Benefits Program, with employers responsible for funding incentives and disincentives to shift auto commuters to any combination of telecommuting, transit, walking and/or bicycling.	Not Applicable. This strategy is not applicable as the proposed project would consist of an office/R&D building; however,
	EN8. Expand clean vehicle initiatives. Expand investments in clean vehicles, including more fuel-efficient vehicles and electric vehicle subsidies and chargers.	Consistent with Mitigation Measure GHG-1. With implementation of Mitigation Measure GHG-1, the project sponsor shall provide a minimum of 20 percent of the parking spaces as EV charging stations as part of the final project design, to be consistent with current CALGreen Tier 2 standards. The final design including these revisions shall be incorporated. With implementation of Mitigation Measure GHG-1, the proposed project would be consistent with this key project attribute.
	EN9. Expand transportation demand management initiatives. Expand investments in programs like vanpools, bikeshare, carshare and parking fees to discourage solo driving.	Consistent. The proposed project would develop an office/R&D building that would locate employees near existing residential, institutional, educational, office, and open space uses, reducing the demand for travel by single-occupancy vehicles. The proposed project would also develop a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the project site. In addition, the project area is served by public transit facilities and the proposed project would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single-occupancy vehicles, consistent with the intent of this measure.

Sources: Metropolitan Transportation Commission and Association of Bay Area Governments (2021); LSA (August 2023).

CALGreen = California Green Building Standards Code

CO₂ = carbon dioxide

R&D = research and development

Table 4.6.F: Project Consistency with CAP Strategies

Measures	Project Consistency
EC1 – Adopt CALGreen for non-residential buildings triennially. Work to mandate achievement of CALGreen Tier 1 energy performance	Consistent. The proposed project would comply with current CALGreen standards.
EC2 – Update CALGreen for residential buildings triennially. Work to mandate achievement of CALGreen Tier 1 energy performance.	Not Applicable. The proposed project would not include residential uses.
EC3 – Provide financial incentives for solar PV and hot water system installation.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
EC4 – Provide or encourage residential energy audits and retrofits. Leverage existing rebates/add additional rebates for energy efficient retrofits.	Not Applicable. The proposed project would not include residential uses.
EC5 – Promote and assist with marketing and outreach for PG&E energy efficiency and demand response programs for the nonresidential sector. Leverage existing rebates/add additional rebates for energy efficient retrofits.	Consistent. The proposed project would comply with current CALGreen standards, and all energy provided to the site would be consistent with the State’s Renewable Energy Portfolio standards.
EC6 – Continue to be part of the Peninsula Clean Energy (PCE) Community Choice Aggregation (CCA) Program and continue to opt for the ECO100 option (100% renewable energy) for all City facilities.	Consistent. All energy provided to the site would be consistent with the State’s Renewable Energy Portfolio standards.
EM1 – Replace street, signal lights, parks and parking lot lighting with efficient lighting (LEDs, induction, etc.).	Consistent. As the proposed project would comply with current CALGreen standards, it is assumed that the proposed project would incorporate efficient lighting.
EM2 – Implement a sustainable purchasing policy that emphasizes recycled materials and Energy Star equipment.	Consistent. As the proposed project would comply with current CALGreen standards, it is assumed that the proposed project would incorporate recycled materials and Energy Star equipment.
EM3 – Mandate all new municipal buildings achievement of CALGreen Tier 1 energy performance.	Consistent. The proposed project would comply with current CALGreen standards.
EM4 – Complete feasibility study on the installation of solar or other renewable energy projects at City facilities and install where feasible. Set a goal for renewable energy purchase if installation is not feasible.	Consistent. The proposed project would comply with current CALGreen standards and all energy provided to the site would be consistent with the State’s Renewable Energy Portfolio standards.
EM5 – Participate in San Mateo County Energy Watch and leveraged benchmarking to identify EE audit and retrofit projects and track energy performance.	Consistent. As the proposed project would comply with current CALGreen standards, it is assumed that the proposed project would measure and track energy consumption.
EW1 – Promote existing and/or new rebates for water efficient appliances and fixtures.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the proposed project.
EW2 – Adopt Bay Area Water Supply and Conservation Agency (BAWSCA) Ordinances or triennial CALGreen codes that apply to water.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
A1 – Establish voluntary program that allows businesses to brand themselves as green by following sustainable practices.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
TL1 – Establish a Smart Growth Policy that prioritizes infill, higher density, transit-oriented and mixed-use development.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
TL2 – Remake urban landscape to ensure Complete Streets, with bike lanes, bike parking, traffic calming, beautification, etc. Continue to support Paper Trails and Safe Routes to School to encourage walking.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.

Table 4.6.F: Project Consistency with CAP Strategies

Measures	Project Consistency
TL3 – Incentivize City Car Sharing Companies to open pods in town. Explore Bike Share program.	Consistent. The proposed project would develop a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the project site. As such, the TDM measures would encourage employees to utilize other transportation options and rely less on driving alone, consistent with the intent of this measure.
TM1 – Prioritize purchase of efficient vehicles and alternative fuel vehicles (including off-road equipment). Maintain existing vehicles for optimum mileage. Encourage staff to drive minimally and efficiently. Establish government operations idling policy.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
TM2 – Establish alternative work schedules and telecommuting to reduce employee commute.	Consistent. The proposed project would develop a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the project site. As such, the TDM measures would encourage employees to utilize other transportation options and rely less on driving alone, consistent with the intent of this measure.
TM4 – Target purchase of new or conversion of existing government vehicles to more efficient vehicles.	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
WC1 – Increase participation in recycling programs and ensure weekly collection of recyclables and organic waste.	Consistent. Belmont is served by Recology San Mateo County for solid waste, recycling, and composting services. As such, the proposed project would provide weekly collection of recyclables and organic waste.
WC2 – Mandate businesses recycle and provide staff or contractor to verify compliance (support and enforce State law).	Not Applicable. This is a community policy based goal; therefore, this measure would not be applicable to the project.
WC4 – Increase diversion/recycling of yard waste by landscapers and landscape maintenance businesses and food scraps by residents and businesses. Explore a ban on these organics from landfill.	Consistent. The proposed project would comply with the CalRecycle initiative of reducing landfill waste by 75 percent.

Sources: *City of Belmont Climate Action Plan* (City of Belmont 2017b); and *Peer Review of Historic Evaluation and Cultural Resource Reports for the 2 Davis Drive Project* (LSA 2021).

CALGreen = California Green Building Standards Code

CalRecycle = California Department of Resources Recycling and Recovery

CAP = Climate Action Plan

EE = energy efficiency

PV = photovoltaic

PG&E = Pacific Gas & Electric

Conclusion. As described above, the proposed project would generally be consistent with the City of Belmont CAP, Plan Bay Area 2050, and the 2022 Scoping Plan. Therefore, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. This impact would be less than significant.

4.6.2.3 Cumulative Impacts

GHG impacts are by their nature cumulative impacts. Localized impacts of climate change are the result of the cumulative impact of global emissions. The combined benefits of reductions achieved by all levels of government help to slow or reverse the growth in GHG emissions. In the absence of comprehensive international agreements on appropriate levels of reductions achieved by each country, another measure of cumulative contribution is required. This serves to define the State's share of the reductions regardless of the activities or lack of activities of other areas of the U.S. or

the world. Therefore, a cumulative threshold based on consistency with State targets and actions to reduce GHGs is an appropriate standard of comparison for significance determinations.

The BAAQMD has determined that projects need to incorporate design elements to do their “fair share” of implementing the goal of carbon neutrality by 2045. If a project is designed and built to incorporate the design elements, then it would contribute its portion of what is necessary to achieve its “fair share” and it can be concluded that the project would result in a less-than-significant impact related to GHG emissions. If a project does not incorporate these design elements, then a project would result in a significant GHG impact. As described above, with implementation of Mitigation Measure GHG-1, the proposed project would be consistent with the BAAQMD’s project design elements related to natural gas, energy, and electric vehicles. However, the proposed project would result in a significant VMT impact and therefore would not be consistent with the BAAQMD’s thresholds. The project would implement a comprehensive TDM plan, consistent with City and C/CAG standards. However, there are no additional feasible mitigation measures to reduce the project’s VMT impact. As such, cumulative GHG impacts would be considered significant and unavoidable.

4.7 NOISE

This section describes existing noise and vibration conditions, sets forth criteria for determining the significance of noise and vibration impacts, and estimates the likely noise and vibration impacts that would result from construction and operation of the proposed project. Mitigation measures are identified, as necessary, to address significant environmental impacts. Technical data are provided in Appendix I.

4.7.1 Setting

This section describes the fundamentals of noise and vibration, summarizes the regulatory framework, and describes the existing noise environment of the project site and its vicinity.

4.7.1.1 Characteristics of Sound

Noise is generally defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is the number of complete vibrations or cycles per second of a wave that results in the range of tone from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment, and it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effects on adjacent sensitive land uses.

Measurement of Sound. Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. Table 4.7.A contains a list of typical acoustical terms and definitions. Figure 4.7-1 shows representative outdoor and indoor noise levels in units of dBA.

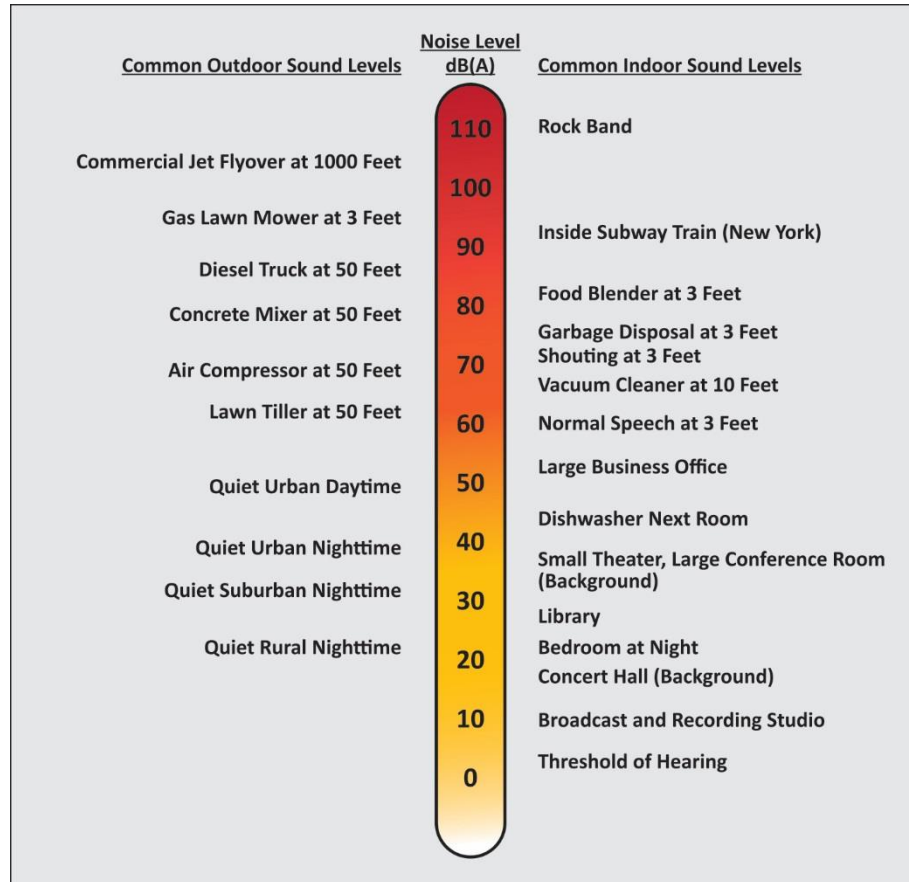
A decibel (dB) is a unit of measurement which indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness.

Table 4.7.A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of sound level that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L_{01} , L_{10} , L_{50} , L_{90}	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of five decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max} , L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: *Handbook of Acoustical Measurements and Noise Control* (Cyril Harris 1998).

Figure 4.7-1: Typical A-Weighted Sound Levels



Source: Compiled by LSA (2016).

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise-sensitive receptor of concern. There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} , the community noise equivalent level (CNEL), and the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale, but without the adjustment for events occurring during the evening relaxation hours. CNEL and L_{dn} are within 1 dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours. Typical A-weighted sound levels from various sources are described on Figure 4.7-1.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level ($L_{\max}$), which is the highest exponential time averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by $L_{\max}$ for short-term noise impacts. $L_{\max}$ reflects peak operating conditions, and addresses the annoying aspects of intermittent noise.

Noise standards in terms of percentile exceedance levels, L_n , are often used together with the $L_{\max}$ for noise enforcement purposes. When specified, the percentile exceedance levels are not to be exceeded by an offending sound over a stated time period. For example, the L_{10} noise level represents the level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the lowest noise level experienced during a monitoring period. It is normally referred to as the background noise level. For a relatively steady noise, the measured L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dBA or greater, since, as described earlier, this level of noise change has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dBA. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1.0 dBA that are inaudible to the human ear. A change in noise level of at least 5 dBA would be required before any noticeable change in human response would be expected and a 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise. The effects of noise on people can also be described in three categories: annoyance, interference with activities such as speech or sleep, and physiological effects such as hearing loss. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the ear, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling.

Unwanted community effects of noise occur at levels much lower than those that cause hearing loss and other health effects. Noise annoyance occurs when it interferes with sleeping, conversation, and noise-sensitive work, including learning or listening to the radio, television, or music. According to World Health Organization (WHO) noise studies, few people are seriously annoyed by daytime

activities with noise levels below 55 dBA, or are only moderately annoyed with noise levels below 50 dBA.¹

4.7.1.2 Characteristics of Ground-borne Vibration

Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings. As the vibration propagates from the foundation throughout the remainder of the building, the vibration of floors and walls may cause perceptible vibration from the rattling of windows or a rumbling noise. The rumbling sound caused by the vibration of room surfaces is called ground-borne noise. When assessing annoyance from ground-borne noise, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second. To distinguish vibration levels from noise levels, the unit is written as "VdB." Human perception to vibration starts at levels as low as 67 VdB and sometimes lower. Annoyance due to vibration in residential settings starts at approximately 70 VdB. Ground-borne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of the building, the motion does not provoke the same adverse human reaction.

In extreme cases, excessive ground-borne vibration has the potential to cause structural damage to buildings. Vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). Common sources of ground-borne vibration include trains and construction activities such as blasting, pile driving, and operating heavy earthmoving equipment. Typical vibration source levels from construction equipment are shown in Table 4.7.B.

Table 4.7.B: Typical Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 feet (in/sec)	Approximate VdB at 25 feet
Pile Driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile Driver (sonic)	Upper range	0.734	105
	Typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory roller		0.210	94
Hoe ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: *Transit Noise and Vibration Impact Assessment* (Federal Transit Administration 2006).

In/sec = inches per second

PPV = peak particle velocity

VdB = vibration velocity decibel

¹ World Health Organization (WHO). 1999. *Guidelines for Community Noise*.

4.7.1.3 Existing Noise Environment

Existing noise levels were documented by RCH Group in the Noise Technical Report.² Noise monitoring was conducted to establish the existing ambient noise environment around the project site. One long-term (72-hour) and several short-term (10-minute) noise measurements were conducted around the project site between October 11, 2018, and October 17, 2018. As shown in Table 4.7.C, the noise measurements indicate that ambient noise in the project site vicinity ranges from approximately 48 dBA to 78 dBA L_{eq} . The long-term measurements resulted in daily noise levels of 69 dBA CNEL. Traffic noise levels on Ralston Avenue were identified as the primary noise source around the project site. Additional noise sources included playground children noise from Ralston Middle School and Crystal Springs Uplands Middle School, cars traveling on Davis Drive, and overhead aircraft.

Table 4.7.C: Short-Term Ambient Noise Monitoring Results, dBA

Location	Time Period	L_{eq} ¹	CNEL ²	Noise Sources
Site 1: 60 feet south of Ralston Avenue Centerline	October 14, 2018, 12:00 a.m. to October 16, 2018, 11:59 p.m.	Hourly range of 48–78	69	Unattended noise measurements do not specifically identify noise sources.
Site 1: 60 feet south of Ralston Avenue Centerline	October 11, 2018, 12:39 p.m. to 12:49 p.m.	5 minute: 66, 65	-	All traffic noise. Almost all cars and light trucks (72, 71, 69, 64, 66, 61, 60, 71, 70, 66 dB). Stoplight at Davis Drive/Ralston Avenue intersection affects speed and congestion. Times of no cars, between signal cycles. One plane overhead.
Site 2: Southwest corner of project site/existing parking lot	October 11, 2018, 12:18 p.m. to 12:28 p.m.	5 minute: 53, 54	-	Children on schoolyard to west. Many kids, constant noise approximately 53 dB. Minimal traffic noise from Ralston Avenue (less than the school noise). Overhead plane approximately 60 dB. Traffic up to 55 dB, usually less. Existing building's door open on site but no noise.
Site 2: Southwest corner of project site/existing parking lot	October 17, 2018, 11:51 a.m. to 12:01 p.m.	5 minute: 50, 48	-	Playground activities (basketball) and recess on field to south. Traffic on Ralston Avenue (48, 45, 53, 47, 48, 49, 53, 46 dB). Traffic on Ralston Avenue plus kids cheering approximately 56 dB. Two planes overhead.
Site 3: Southeast corner of project site/existing parking lot	October 11, 2018, 12:53 p.m. to 1:03 p.m.	5 minute: 52, 54	-	Noise from traffic on Ralston Avenue, on minor noise on Davis Drive. Person said hello to Noise Monitor at 12:56 p.m. during measurement. Traffic on Ralston Avenue (53, 55, 51, 52, 56, 56 dB).
Site 4: In parking lot next to existing building entry	October 17, 2018, 11:38 a.m. to 11:48 a.m.	5 minute: 52, 54	-	Overhead plane less than 53 dB. Vehicles on Ralston Avenue (53, 52, 50, 49, 55, 52, 53 dB). Vehicles on Davis Drive (62, 51, 51, 53, 54, 53, 62, 55 dB). UPS truck on Davis Drive approximately 62 dB. Four overhead planes.

Source: 2 Davis Drive, Belmont, CA Noise Technical Report (RCH Group 2018).

¹ L_{eq} represents the average of the sound energy occurring over the 5-minute time period.

² CNEL is the 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

dB = decibel(s)

dBA = A-weighted decibel(s)

² RCH Group. 2018. 2 Davis Drive, Belmont, CA Noise Technical Report. November 6.

Existing Traffic Noise. Motor vehicles with their distinctive noise characteristics are a major source of noise in Belmont. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks), average traffic speed, and distance from the observer. In Belmont, street traffic noise is the most extensive noise generator, and noise from U.S. Highway 101 (US 101) has the greatest existing and projected street noise generation. Other major streets with high levels of noise include El Camino Real, Ralston Avenue, and Alameda de las Pulgas. Based on Figure 7-2 in the City's General Plan, the project site is exposed to noise levels between 65 and 70 dB CNEL associated with traffic noise on Ralston Avenue.³

Existing Railroad Noise. The diesel-powered Caltrain commuter rail line runs through Belmont, parallel to El Camino Real. Union Pacific runs diesel-powered freight trains along the rail lines during periods when Caltrain is not using the tracks, particularly in the late evening or early morning. The diesel trains do have noise associated with them; however, it is less substantial than roadway and vehicular traffic in Belmont. In addition, noise from trains occurs intermittently, for short periods, in contrast to the virtually constant presence of vehicle traffic noise.⁴ The project site is located approximately 1.9 miles west of the rail line. At this distance, railway noise would not be audible on the project site.

Existing Airport Noise. The closest airport to the project site is San Carlos Airport, located approximately 3.1 miles east of the project site. In addition, the San Francisco International Airport is located approximately 7.7 miles northwest of the project site. Although aircraft-related noise is occasionally audible on the project site, the site does not lie within the 65 dBA CNEL noise contours of either of these airports.

Other Existing Noise. Other noise sources in Belmont include service commercial and light industrial uses, construction and other equipment, and parks and school playing fields. Noise sources associated with light industrial and service commercial uses such as automotive repair facilities, car washes, and recycling yards, are found throughout the city. Construction can be another substantial, though short-term, source of noise and is most disruptive when it takes place near sensitive land uses, or occurs at night or in early morning hours. In addition, noise generated by park and school uses is a source of noise in Belmont. School playing field activities tend to generate more noise than those of neighborhood parks, as the intensity of school playground usage tends to be higher.⁵ As discussed above, playground children noise from Ralston Middle School and Crystal Springs Uplands Middle School was identified as a primary noise generator in the project area.

Existing Sensitive Receptors. Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, hospitals, child care facilities, and senior housing. The nearest sensitive receptors to the project site are Ralston Middle School and Crystal Springs Uplands Middle School, which are adjacent to the project site. There are also a few single-family homes within 200 feet of the northern property line of the project site, but they are on the opposite side of Ralston Avenue.

³ City of Belmont. 2017a. *City of Belmont 2035 General Plan, Noise Element*. November 14.

⁴ Ibid.

⁵ Ibid.

4.7.1.4 Regulatory Framework

The applicable federal, State, and local regulatory framework is discussed below.

Federal Regulations. In 1972, Congress enacted the Noise Control Act. This act authorized the United States Environmental Protection Agency (USEPA) to publish descriptive data on the effects of noise and establish levels of sound “requisite to protect the public welfare with an adequate margin of safety.” These levels are separated into health (hearing loss levels) and welfare (annoyance levels), as shown in Table 4.7.D. The USEPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of the levels.

Table 4.7.D: Summary of USEPA Noise Levels

Effect	Level	Area
Hearing loss	$L_{eq}(24) \leq 70$ dB	All areas.
Outdoor activity interference and annoyance	$L_{dn} \leq 55$ dB	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.
	$L_{eq}(24) \leq 55$ dB	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	$L_{eq} \leq 45$ dB	Indoor residential areas.
	$L_{eq}(24) \leq 45$ dB	Other indoor areas with human activities such as schools, etc.

Source: Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (USEPA 1974).

dB = decibel(s)

L_{dn} = day-night average level

L_{eq} = equivalent continuous sound level

USEPA = United States Environmental Protection Agency

For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to an $L_{eq}(24)$ of 70 dBA. The “(24)” signifies an L_{eq} duration of 24 hours. The USEPA activity and interference guidelines are designed to ensure reliable speech communication at about 5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels are below 55 dBA and 45 dBA, respectively.

The noise effects associated with an outdoor L_{dn} of 55 dBA are summarized in Table 4.7.E. At 55 dBA L_{dn} , 95 percent sentence clarity (intelligibility) may be expected at 11 feet, and no substantial community reaction. However, 1 percent of the population may complain about noise at this level and 17 percent may indicate annoyance.

Table 4.7.E: Summary of Human Effects in Areas Exposed to 55 dBA L_{dn}

Type of Effect	Magnitude of Effect
Speech – Indoors	100 percent sentence intelligibility (average) with a 5 dB margin of safety.
Speech – Outdoors	100 percent sentence intelligibility (average) at 0.35 meter. 99 percent sentence intelligibility (average) at 1.0 meter. 95 percent sentence intelligibility (average) at 3.5 meters.
Average Community Reaction	None evident; 7 dB below level of significant complaints and threats of legal action and at least 16 dB below “vigorous action.”
Complaints	1 percent dependent on attitude and other non-level related factors.
Annoyance	17 percent dependent on attitude and other non-level related factors.
Attitude Towards Area	Noise essentially the least important of various factors.

Source: Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (USEPA, March 1974).

dB = decibel(s)

dBA = A-weighted decibel(s)

L_{dn} = day-night average level

USEPA = United States Environmental Protection Agency

State Regulations. The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. The “State Noise Insulation Standard” requires noise-sensitive land uses to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the building. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA CNEL in any habitable room with all doors and windows closed. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL.

The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses.

City of Belmont. The City of Belmont addresses noise in the General Plan and Municipal Code.

General Plan. The City of Belmont addresses noise in the Noise Element of its General Plan.⁶ The Noise Element sets standards for community noise exposure, transportation noise sources, and stationary noise sources, as shown in Tables 4.7.F through 4.7.H below.

⁶ City of Belmont. 2017a. *City of Belmont 2035 General Plan*. November.

Table 4.7.F: Community Noise Exposure Matrix

Land Use Category	Community Noise Exposure L _{dn} or CNEL, dB					
	55	60	65	70	75	80
Residential – Low Density Single-Family, Duplex, Mobile Homes						
Residential – Multi-Family						
Transient Lodging – Motels, Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concerts, Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Businesses Commercial and Professional						
Industrial, Manufacturing Utilities, Agriculture						

Normally
AcceptableConditionally
AcceptableNormally
UnacceptableClearly
Unacceptable

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

New construction or development generally should not be undertaken.

Source: *City of Belmont 2035 General Plan* (City of Belmont 2017a).

Table 4.7.G: Transportation (Non-aircraft) Noise Sources

Noise-Sensitive Land Use ²	Outdoor Activity Areas ¹	Interior Spaces	
	L _{dn} /CNEL, dB	L _{dn} /CNEL, dB	L _{eq} , dB
Single-family Residential	60	45	-
Multi-family Residential	65	45	-
Transient Lodging	65	45	-
Hospitals, Nursing Homes	65	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	65	-	45
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45

Source: *City of Belmont 2035 General Plan* (City of Belmont 2017a).

¹ Outdoor activity areas generally include backyards of single-family residences and outdoor patios, decks, or common recreation areas of multi-family residences. Where the location of outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.

² As determined for a typical worst-case hour during periods of use.

CNEL = Community Noise Equivalent Level

dB = decibel(s)

L_{dn} = day-night average level

L_{eq} = equivalent continuous sound level

Table 4.7.H: Stationary Noise Sources¹

	Daytime ²	Nighttime ³
Hourly Equivalent Sound Level (L _{eq}), dBA	50	45
Maximum Sound Level (L _{max}), dBA	70	65

Source: *City of Belmont 2035 General Plan* (City of Belmont 2017a).

¹ 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.

² Daytime is the period from 8:00 a.m. to sunset, Monday through Friday; and from 10:00 a.m. to sunset, Saturday, Sunday and holidays.

³ Nighttime is the period outside the hours of “daytime” above.

dBA = A-weighted decibel(s)

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous sound level

In addition, the Noise Element sets goals, policies, and actions that strive to achieve an acceptable noise environment for the environmental, health, and safety needs of present and future residents of Belmont and protect noise-sensitive land uses, such as schools, hospitals, and senior care facilities, from encroachment of and exposure to excessive levels of noise. The following policies and actions are applicable to the proposed project.

- **Action 7.1-1a:** Continue to limit hours for certain construction and demolition work to reduce construction-related noise exposure.
- **Action 7.1-1b:** Address sources of excessive neighborhood noise that can cause nuisances for residents, such as gas leaf blowers, wireless telecommunication facilities, power sources, ventilation, and cooling facilities.

- **Policy 7.1-2:** Use the Community Noise Level Exposure Standards, shown in Table 4.7.F, as review criteria for new land uses. Require all new development that would be exposed to noise greater than the “normally acceptable” noise level range to reduce interior noise through design, sound insulation, or other measures.
- **Policy 7.1-3:** Require noise-reducing mitigation to meet allowable outdoor and indoor noise exposure standards in Table 4.7.G. Noise mitigation measures that may be approved to achieve these noise level targets include but are not limited to the following:
 - Construct façades with substantial weight and insulation;
 - Use sound-rated windows for primary sleeping and activity areas;
 - Use sound-rated doors for all exterior entries at primary sleeping and activity areas;
 - Use minimum setbacks and exterior barriers;
 - Use acoustic baffling of vents for chimneys, attic and gable ends; and
 - Install a mechanical ventilation system that provides fresh air under closed window conditions.
- **Policy 7.1-10:** Require developers of new development anticipated to generate a substantial amount of vibration during construction to implement mitigation practices to reduce vibration, which can include: operating heavy equipment as far as practical from residential uses; using smaller bulldozers (operating weight less than 20,000 pounds) when grading must occur within approximately 50 feet of residential uses or other vibration sensitive uses; and using quiet pile driving technology when feasible.

Municipal Code. The City of Belmont Municipal Code Chapter 15 Article VIII⁷ contains regulations to protect its residents from excessive noise. The Code sets the following operational sound level limits that shall not be exceeded:

1. Residential: For all sources of sound measured from any residential property:
 - a. Nighttime hours: 55 dB
 - b. Daytime hours: 65 dB
2. Multi-family: For all sources of sound measured within a multi-family residential structure transmitting through a common interior partition (wall, floor, or ceiling) from one (1) dwelling unit to another:
 - a. Nighttime hours: 35 dB
 - b. Daytime hours: 45 dB
3. Non-residential: For all sources of sound measured from any non-residential property:
 - a. Nighttime hours: 55 dB
 - b. Daytime hours: 65 dB

⁷ City of Belmont. 2021. *Belmont, California Code of Ordinances*. January 8. Website: https://library.municode.com/ca/belmont/codes/code_of_ordinances?nodeId=CICO_CH15OFIS_ARTVIIIINOCO_S15-100DEPO (accessed August 2021).

4. Corrections for character of sound: In the event the alleged offensive noise contains a steady, audible tone, such as a whine, screech, beating, pulsating, throbbing or hum the standards for Residential and Multi-family properties shall be reduced by five (5) dB.
5. Any and all excessively annoying, loud or unusual noises or vibrations not exceeding the sound level limits in this subsection shall nonetheless be considered a noise disturbance if such noise or noises:
 - a. Offend the peace and quiet of persons of ordinary or reasonable sensibilities, or
 - b. Interfere with the comfortable enjoyment of life or property.

Noise from construction activities noise are subject to the following regulations by the Code:

1. Except as provided in number 2 below, all construction and related activities which require a city permit, including the use of powered equipment in connection with such activities, are allowed only during the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except Holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. All gasoline-powered construction equipment shall be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted.
2. The Building Official may allow construction and related activity outside the days and hours provided in number 1 above when:
 - a. Necessary for emergency repairs or to protect life or property from imminent threat of harm;
 - b. The construction site is more than 300 feet from a dwelling unit; or,
 - c. Noise from the allowed construction activity is in the Building Official's opinion comparable to the noise from non-construction activity in the immediate area.
 - d. Expanded construction hours provides quantifiable benefit to the public and noise will not unduly interfere with the comfortable enjoyment of life or property.
3. An exception granted under number 2 above, including the scope of allowed activity shall be noted on the building permit.
4. The Building Official may limit, condition, modify or eliminate an exception as necessary to limit noise disturbance.

The Municipal Code also stipulates that delivery activities are exempt from noise limitations when deliveries occur during the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and between the hours of 9:00 a.m. to 5:00 p.m. Saturdays, Sundays, and holidays. In addition, emergency activities by a government entity for the protection of public health and safety are exempt from noise limitations.

4.7.2 Impacts and Mitigation Measures

This section discusses potential noise and vibration 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 is significant. The latter part of this section presents the impacts associated with implementation of the proposed project and identifies mitigation measures, as appropriate.

4.7.2.1 Significance Criteria

The project would result in a significant impact related to noise if it would result in:

- 1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the General Plan or the Municipal Code, and/or the applicable standards of other agencies;
- 2) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels; or
- 3) The location of a project within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, so that the project would result in exposure of people residing or working in the project area to excessive noise levels.

In *California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)*, the California Supreme Court concluded that CEQA generally does not require analysis or mitigation of the impact of existing environmental conditions on a project, including a project's future users or residents.⁸ However, as with other laws and regulations enforced by other agencies that protect public health and safety, the City as the lead agency has authority, other than CEQA, to require measures to protect public health and safety. Therefore, this document includes an evaluation of the environment's impacts on the proposed project. The evaluation includes an assessment of the proposed office/research and development (R&D) building based on the City's Community Noise Exposure Matrix standards.

4.7.2.2 Project Impacts

The following section discusses the potential noise and vibration impacts associated with implementation of the proposed project.

1) Create a substantial permanent or temporary increase in ambient noise levels in the vicinity of the project in excess of standards established by the City

The following section describes how the long-term operational noise impacts of the proposed project would be less than significant and how short-term construction noise impacts would be less than significant with implementation of Mitigation Measure NOI-1.

⁸ California Supreme Court. 2015. *California Building Industry Association v. Bay Area Air Quality Management District* 62 Cal.4th 369, Case No. S213478. December.

Land Use Compatibility Assessment. The City sets forth normally acceptable noise level standards for land use compatibility and noise exposure of new developments. As discussed in Section 4.7.1.3, Existing Noise Environment, traffic noise on Ralston Avenue is the primary source of noise at the project site. As identified in Table 4.7.C, the existing noise level at 60 feet from the centerline of Ralston Avenue (Site 1) is 69 dBA CNEL. The proposed office/R&D building would be located approximately 90 feet from the centerline of Ralston Avenue. Therefore, at 90 feet, there would be a decrease of approximately 3 dBA from the measured noise levels of 69 dBA CNEL at 60 feet. Therefore, the proposed office/R&D building may be subject to traffic noise levels of approximately 66 dBA CNEL. Based on the City's Community Noise Exposure Matrix, Table 4.7.F above, noise levels up to 75 dBA CNEL are considered normally acceptable for office buildings and commercial and professional businesses. Therefore, the proposed office/R&D building is compatible with the City's noise standards, and impacts would be less than significant.

Traffic Noise Impacts. Motor vehicles with their distinctive noise characteristics are the dominant noise sources in the project vicinity. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks), average traffic speed, and distance from the observer.

On-Site Traffic Noise Impacts. The City sets standards for transportation (non-aircraft) noise sources, as shown in Table 4.7.G above, which identify a 45 dBA L_{eq} interior noise standard for office buildings as determined for a typical worst-case hour during periods of use. As identified in Table 4.7.C, the worst-case noise level during typical working hours (assumed to be 7:00 a.m. to 7:00 p.m.) measured at 60 feet from the centerline of Ralston Avenue (Site 1) was 70 dBA L_{eq} (1-hour L_{eq}). As stated previously, the proposed office/R&D building would be approximately 90 feet from the centerline of Ralston Avenue. At 90 feet, there would be a decrease of approximately 3 dBA from the measured noise levels of 70 dBA L_{eq} at 60 feet. As such, traffic noise levels would be approximately 67 dBA L_{eq} at the proposed office/R&D building. Commercial and residential building façades typically provide a minimum exterior-to-interior noise reduction of 25 dB with windows closed.⁹ Therefore, the worst-case interior noise level during typical working hours in the proposed building would be approximately 42 dBA L_{eq} . The proposed project would comply with the City's transportation noise level standard of 45 dBA L_{eq} for office buildings. As such, on-site traffic-related noise impacts would be less than significant.

Off-Site Traffic Noise Impacts. A characteristic of sound is that a doubling of a noise source is required in order to result in a perceptible (3 dBA or greater) increase in the resulting noise level. Implementation of the proposed project would result in new daily trips on local roadways in the project site vicinity. Based on the proposed project's trip generation estimates, the proposed project would typically generate approximately 718 net new average daily trips and the fire station would typically generate 36 average daily trips (refer to Table 4.4.C in Section 4.4, Transportation, for trip generation estimates). Based on the existing peak-hour turning movement volumes, the adjacent Ralston Avenue carries

⁹ California Department of Transportation (Caltrans). 2002a. *California Airport Land Use Planning Handbook* Prepared by Shutt Moden Associates.

approximately 27,670 average daily trips. Project trips would represent a small increase in noise level, up to approximately 0.1 dBA CNEL based on the following equation:

$$\text{Change in (dBA)} = 10 * \log_{10} \left(\frac{\text{Future Volume}}{\text{Current Volume}} \right)$$

Therefore, project daily trips would not result in a perceptible noise increase along any roadway segment in the project vicinity and would not result in a perceptible increase in traffic noise levels at receptors in the project vicinity. Therefore, off-site traffic noise impacts as a result of the project would be less than significant.

Stationary Noise Impacts. Stationary noise sources associated with the proposed project could include heating, ventilation, and air conditioning (HVAC) equipment, parking lot activities, delivery activities, and fire station activities, including emergency vehicle noise. However, as discussed in Section 4.7.14, Regulatory Framework, above, delivery activities are exempt from noise limitations when deliveries occur during the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and between the hours of 9:00 a.m. to 5:00 p.m. Saturdays, Sundays, and holidays. Deliveries would only occur within these hours and are not evaluated further. In addition, emergency activities by a government entity for the protection of public health and safety are exempt from noise limitations.¹⁰ As such, fire station activities would be exempt and are not evaluated below.

HVAC Noise Impacts. For purposes of this analysis, 75 dBA L_{eq} at 3 feet was assumed to represent HVAC-related noise.¹¹ The project's HVAC equipment would be located in the center of the roof and would be screened. As discussed above, the nearest sensitive receptors to the project site are Ralston Middle School and Crystal Springs Uplands Middle School, which are adjacent to the project site. The HVAC system would be located approximately 225 feet from Ralston Middle School. At 225 feet, there would be a decrease of approximately 37 dBA over the reference noise level at 3 feet due to attenuation with distance. As such, HVAC-related noise would be approximately 38 dBA L_{eq} at 225 feet. In addition, the HVAC equipment would be screened, which would reduce noise levels by approximately 5 dBA. Therefore, HVAC-related noise would be approximately 33 dBA L_{eq} at the nearest sensitive receptor, which would not exceed the City's stationary noise standards of 50 dBA L_{eq} during the daytime and 45 dBA L_{eq} during the nighttime. Therefore, HVAC equipment noise associated with the proposed project would be less than significant.

¹⁰ City of Belmont. *Belmont City Code*. Section 15-103. As amended through November 23, 2021.

¹¹ Trane. 2002. *Sound Data and Application Guide for the New and Quieter Air-Cooled Series R Chiller*.

Parking Lot Activities. The proposed project would include an enclosed parking garage, which would limit the amount of parking lot noise from the project for typical employee parking activities. However, the proposed project does include several on-site parking spaces around the perimeter of the project site. Parking noise (including engine sounds, car doors slamming, and people conversing) would occur as a result of the proposed project. Typical parking lot activities, such as people conversing or doors slamming, generates approximately 60 dBA to 70 dBA L_{max} at 50 feet. This noise would be intermittent and would vary in location throughout the day. The closest sensitive receptors to the project site include Ralston Middle School and Crystal Springs Uplands Middle School, which are adjacent to the project site. However, both the Ralston Middle School and Crystal Springs Uplands Middle School have parking lots located along the project site border adjacent to the proposed parking areas. As such, the proposed parking areas would result in similar noise levels to existing conditions and would not result in a perceptible increase in noise levels at receptors in the project vicinity. Therefore, parking lot activity noise associated with the proposed project would be less than significant.

Construction Noise Impacts. Construction activities would include demolition of the existing building on the project site and construction of the project, including the proposed office building and fire station. Demolition activities and construction of the project would occur for approximately 16 months. Construction and demolition activities would require the use of numerous pieces of noise-generating equipment, such as excavating machinery (e.g., backhoes, excavators, and front loaders) and other construction equipment (e.g., compactors, pavers, concrete mixers, and trucks).

The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment and the prevailing wind direction. The maximum noise levels for various types of construction equipment that could be used during proposed project construction are provided in Table 4.7.I. Maximum noise levels generated by construction equipment used for the proposed project would range from 62 to 77 dBA L_{max} at a distance of 150 feet (the distance from the western project site boundary to the nearest classroom at Ralston Middle School). Recreational areas (basketball courts, baseball field, and soccer field) belonging to Ralston Middle School and Crystal Springs Uplands Middle School are closer than 150 feet, but these areas generate noise levels (when students are present) that would mask construction noise levels from adjacent properties.

Impact NOI-1: Noise from construction activities at the project site would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (S)

Construction of the proposed would result in a temporary increase in ambient noise levels in the project vicinity. The closest sensitive receptors to the project site (Classroom at Ralston Middle School) are approximately 150 feet from the closest location where construction would occur on the project site (the project site western boundary) and are separated by a hill that would attenuate construction noise. At a distance of 150 feet, maximum noise levels from construction equipment

Table 4.7.I: Typical Construction Equipment Noise Levels

Construction Equipment	Noise Level (dBA L_{max}) at 150 Feet ¹
Dump Truck	64
Air Compressor	66
Backhoe	66
Dozer	70
Compactor (ground)	71
Crane	69
Excavator	69
Flat Bed Truck	62
Paver	65
Grader	73
Compressor (air)	66
Generator	69
Roller	68
Vibratory Concrete Mixer	68
Concrete Mixer Truck	67
Jackhammer	77
Front End Loader	67

Source: Roadway Construction Noise Model (FHWA 2006).

dBA = A-weighted decibel(s)

FHWA = Federal Highway Administration

L_{max} = maximum instantaneous sound level

would be 62 to 77 dBA (without accounting for noise attenuation from the hill) at the nearest classroom to the west (Ralston Middle School). Construction noise levels would be less than this estimate most of the time and would fluctuate throughout the day because equipment would not be in use along the western boundary of the project site for an extended period of time, as the majority of construction would occur in the middle of the project site during building construction.

Project construction would comply with construction noise regulations in the City's Municipal Code. Unless granted an exception by the City's Building Official, all construction and related activities which require a City permit, including the use of powered equipment in connection with such activities, are allowed only during the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. Furthermore, the City requires all gasoline-powered construction equipment to be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted. Implementation of Mitigation Measure NOI-1 would ensure the proposed project would comply with City requirements and would reduce temporary construction noise impacts to a level that is less than significant.

Mitigation Measure NOI-1

To reduce noise impacts due to construction at nearby sensitive receptors to the maximum extent feasible, the project sponsor shall employ the following mitigation measures:

- Unless granted an exception by the City's Building Official, all construction and related activities shall occur only during the

hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays.

- All gasoline-powered construction equipment shall be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted.
- All construction equipment shall be properly maintained in good working order.
- Prior to construction activities, a “Construction Noise Coordinator” shall be designated who would be responsible for responding to any local complaints about construction noise. The Construction Noise Coordinator shall determine the cause of the complaint and shall require that reasonable measures warranted to correct the problem be implemented. The telephone number for the Construction Noise Coordinator shall be conspicuously posted at the construction site.
- Prior to construction activities, Ralston Middle School and Crystal Springs Uplands Middle School shall be notified of the construction schedule in writing and provided with the contact information of the Construction Noise Coordinator. (LTS)

Implementation of Mitigation Measure NOI-1 would ensure that construction activity is limited to the less noise-sensitive periods of the day and that potential construction-period noise experienced by noise-sensitive receptors is reduced to the extent feasible. With implementation of Mitigation Measure NOI-1, construction period noise generated by the proposed project would be temporary, reduced to the extent feasible, and would comply with the City’s construction noise requirements. Therefore, construction-related noise impacts would less than significant with mitigation.

2) Generate excessive groundborne vibration or groundborne noise levels

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. Vibration energy propagates from a source, through intervening soil and rock layers, to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by the occupants as the motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of ground-borne vibration are construction activities (e.g., pavement breaking and operating heavy-duty earthmoving equipment), and occasional traffic on rough roads. In general,

ground-borne vibration from standard construction practices would result in impacts when construction occurs within 25 feet of sensitive structures. Ground-borne vibration levels from construction activities very rarely reach levels that can damage structures; however, these levels are perceptible near the active construction site. With the exception of older buildings built prior to the 1950s or buildings of historic significance, potential structural damage from heavy construction activities rarely occurs. When roadways are smooth, vibration from traffic (even heavy trucks) is rarely perceptible.

The streets surrounding the project area are paved, smooth, and unlikely to cause significant ground-borne vibration. In addition, the rubber tires and suspension systems of buses and other on-road vehicles make it unusual for on-road vehicles to cause ground-borne vibration problems. It is, therefore, assumed that no such vehicular vibration impacts would occur and, therefore, no vibration impact analysis of on-road vehicles is necessary. Additionally, once constructed, the proposed project would not contain uses that would generate ground-borne vibration. This impact would be less than significant.

Construction Vibration. The proposed project would not involve the use of construction equipment or processes that would result in potentially significant levels of ground vibration (i.e. pile drivers or blasting). In most cases, vibration induced by typical construction equipment does not result in adverse effects on people or structures.¹² The proposed project would demolish the existing building on site using conventional demolition techniques with excavators, bulldozers, and other typical construction equipment and the proposed project would not require pile driving or blasting.¹³ Demolition activities would be approximately 250 feet or farther away from the nearest structure (Crystal Springs Uplands Middle School) and excavation/grading activities would be approximately 150 feet or farther away from the nearest structure (Ralston Middle School). Vibrational effects from demolition/construction activities are only a concern within 25 feet of existing structures.¹⁴ In addition, as discussed in Section 4.7.1.4, Regulatory Framework, General Plan Policy 7.1-10 requires developers of new development anticipated to generate a substantial amount of vibration during construction to implement mitigation practices to reduce vibration, which can include: operating heavy equipment as far as practical from residential uses; using smaller bulldozers (operating weight less than 20,000 pounds) when grading must occur within approximately 50 feet of residential uses or other vibration sensitive uses; and using quiet pile driving technology when feasible. However, based on the construction equipment to be used and the distance from demolition/construction activities to the nearest structures, vibration from the proposed project would not be a concern and mitigation would not be required. Therefore, potential construction vibration impacts associated with the proposed project would be less than significant.

¹² California Department of Transportation (Caltrans). 2013. *Transportation and Construction Vibration Guidance Manual*. September.

¹³ RCH Group. 2018. *2 Davis Drive, Belmont, CA Noise Technical Report*. November 6.

¹⁴ California Department of Transportation (Caltrans). 2002c. *Transportation Related Earthborne Vibrations*. February.

3) Expose people residing or working in the project area to excessive airport noise levels

As noted in the existing conditions discussion above, the closest airport to the project site is San Carlos Airport, located approximately 3.1 miles east of the project site. In addition, the San Francisco International Airport is located approximately 7.7 miles northwest of the project site. Although aircraft-related noise is occasionally audible on the project site, the site does not lie within the 65 dBA CNEL noise contours of either of these airports. Therefore, the proposed project would not expose people working in or visiting the project area to excessive noise levels, and there would be no impact.

4.7.2.3 Cumulative Impacts

For the topic of noise, the scope for assessing cumulative impacts encompasses past, current, or probable future projects under review by the City and within proximity to the project site, as well as applicable planning level documents that affect the transportation network (i.e., land use assumptions from the General Plan that would increase trips on area roadways, thereby increasing traffic noise). As described above, project trips would represent a small increase in noise levels, up to approximately 0.1 dBA CNEL, which would not exceed the 3 dBA increase considered to be perceptible by the human ear in an outdoor environment. Given the small increase in noise levels generated by the proposed project on the transportation network and location of cumulative projects (see Section 4.4, Transportation) and the anticipated increase in traffic noise anticipated in the vicinity, the proposed project would not result in a cumulatively considerable increase in transportation-related noise.

A significant cumulative impact would also occur if implementation of the proposed project would combine with other cumulative development projects to result in any permanent increase of 3 dBA or more in ambient noise levels at the existing sensitive receptors in the project site vicinity that are currently exposed to noise levels above the City's normally acceptable threshold for that type of land use. As discussed above, long-term operation of the proposed project would not create a significant increase in stationary source noise, including noise associated with parking lot activities and HVAC equipment. Because cumulative development projects are not located immediately adjacent to the project site, permanent increases in noise generated by these projects would not combine with the noise levels generated by the proposed project to create a cumulatively considerable increase in ambient noise levels, and this impact would be less than significant.

With implementation of Mitigation Measure NOISE-1, the proposed project would not result in adverse noise impacts from construction activities. Although the proposed project may be under construction at the same time as one or more cumulative development projects, each project would be required to implement similar measures as those identified in Mitigation Measure NOISE-1 in order to ensure that construction noise levels are reduced to the extent feasible and to ensure that construction activities comply with the City's Noise Ordinance. In addition, construction-related noise impacts would be temporary and would no longer occur once construction of each project is completed. Therefore, construction activities would not be considered a cumulatively considerable contribution to the total noise environment in the project site vicinity, and this impact would be less than significant.

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5.0 ALTERNATIVES

In accordance with CEQA and the CEQA Guidelines (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. An EIR does not need to consider every conceivable alternative to a 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. 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."

As described in more detail in Chapter 3.0, Project Description, the proposed project would result in the demolition of an existing warehouse building and surface parking lot and redevelopment of the project site with an approximately 77,525-gross-square-foot, four-story office/research and development (R&D) building with three levels of office space above one level of enclosed at-grade parking, as well as associated landscaping, circulation and parking, and infrastructure improvements. The project would also include dedication of approximately 14,050 square feet of the southeast corner of the site for future development of a new fire station to replace the existing San Mateo Consolidated Fire Department Station 15.

As provided by the project sponsor, the objectives of the proposed project are to:

- Follow the vision of the City of Belmont 2035 General Plan, which has designated the project site as underutilized and a focus area for economic growth;
- Develop an office building suitable for one or more uses;
- Develop an office building in an underutilized location proximate to major transportation corridors;
- Develop an office building of sufficient density and floor-plate size to allow flexibility in user make-up, particularly focused on life science and information technology users; and
- Dedicate private lands to the City for:
 - A right-turn lane on Ralston Avenue onto Davis Drive, and

- The construction of a new fire station to better provide service to the surrounding neighborhoods.

The potential environmental effects of implementing the proposed project are analyzed in Chapter 4.0, Setting, Impacts, and Mitigation Measures. Table 5.A, located at the end of this chapter, summarizes the impacts of the proposed project. The proposed project has been described and analyzed in the previous chapters and in the Initial Study (Appendix B), with an emphasis on evaluating significant impacts resulting from the project and identifying mitigation measures to avoid or reduce these impacts to a less-than-significant level.

The four alternatives to the proposed project that are discussed and evaluated in this chapter are the following:

- **No Project Alternative.** Under the No Project alternative, the project site would continue to be occupied by the existing single-story warehouse building totaling approximately 21,500 square feet with 43 dedicated parking spaces. No modifications to existing site access or infrastructure would occur.
- **Reduced Intensity Alternative.** Under the Reduced Intensity alternative, the project site would be redeveloped with an approximately 53,000-square-foot, three-story office/R&D building with two levels of office space above one level of enclosed at-grade parking, as well as associated landscaping, circulation and parking, and infrastructure improvements. Similar to the proposed project, the Reduced Intensity alternative would also include dedication of land for the relocated San Mateo Consolidated Fire Department Station 15 and realignment of Ralston Avenue.
- **Rooftop Addition Preservation Alternative.** Under the Rooftop Addition Preservation alternative, the existing one-story building would be retained in its current location and one 15-foot-tall vertical floor addition would be constructed, for a total of 35,500 square feet of office/R&D uses. All parking would be provided in surface lots and the site would be developed with landscaping and circulation improvements. Similar to the proposed project, the Reduced Intensity alternative would also include dedication of land for the relocated San Mateo Consolidated Fire Department Station 15 and realignment of Ralston Avenue. However, the fire station site would be reduced to 13,400 square feet in size and located at the far southwest corner of the site.
- **Attached Addition Preservation Alternative.** Under the Attached Addition Preservation alternative, the existing one-story building would be retained in its current location and a two-story (45-foot-tall) addition would be added to the west side of the building, for a total of 45,000 square feet of office/R&D uses. All parking would be provided in surface lots and the site would be developed with landscaping and circulation improvements. Similar to the proposed project, the Reduced Intensity alternative would also include dedication of land for the relocated San Mateo Consolidated Fire Department Station 15 and realignment of Ralston Avenue. However, the fire station site would be reduced to 13,400 square feet in size and located at the far southwest corner of the site.

These alternatives represent a reasonable range of potential alternatives to the proposed project in light of the objective of avoiding or reducing the severity of significant and unavoidable impacts and/or impacts identified as less than significant with mitigation, as discussed in Chapter 4.0 of this EIR. Several other potential alternatives were also considered, as discussed later in this chapter; however, none of these alternatives would substantially reduce or avoid the environmental impacts of the proposed project and/or would not meet many of the basic project objectives and were therefore ultimately not selected for further analysis.

The purpose of this discussion of alternatives 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 both a quantitative and qualitative 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 4.0, Setting, Impacts, and Mitigation Measures of this EIR. The analysis focuses on the topics of land use and planning, biological resources, cultural (historic) resources, transportation, air quality, greenhouse gas emissions, and noise. Topics not addressed in Chapter 4.0 but that were determined to have no impacts or less than significant impacts through the Initial Study analysis included in Appendix B to the EIR include: aesthetics, agriculture and forestry resources, cultural resources (archaeological and human remains), energy, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, population and housing, public services, recreation, tribal cultural resources, utilities and service systems, and wildfire. These topics are not further addressed in this chapter. Table 5.A, 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 and 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.

5.1 NO PROJECT ALTERNATIVE

The following provides a description of the No Project alternative and its anticipated environmental impacts. The emphasis of the analysis is on comparing the anticipated environmental impacts of the No Project alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the No Project alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

5.1.1 Principal Characteristics

The No Project alternative assumes that the proposed project would not be developed and that the project site would generally remain in its current condition. The project site would continue to be occupied by a single-story warehouse building totaling approximately 21,500 square feet. The existing building may be re-occupied by a new tenant or tenants, and interior improvements could occur to suit the needs of those tenants. None of the existing 23 trees on the site would be

removed. No modifications to existing site access or infrastructure would occur, and dedications would not occur for the new right-turn lane or fire station.

5.1.2 Analysis of the No Project Alternative

The potential impacts associated with the No Project alternative are described below. As discussed, the No Project alternative would avoid all of the less than significant impacts of the proposed project. However, the No Project alternative would also not achieve any of the objectives of the proposed project.

5.1.2.1 Land Use and Planning

The No Project alternative would not result in any new construction and would result in the continuation of existing commercial uses on the project site, and therefore the No Project alternative would not result in the physical division of an established community. The No Project alternative would not result in a change in zoning or development standards regulating floor area ratio (FAR) or building heights applicable to the site and therefore, similar to the proposed project, would not result in any conflicts with any plans, policies, or ordinances adopted for the purposes of avoiding or mitigating an environmental effect. Therefore, compared to the less than significant impacts of the proposed project, the No Project alternative would have no impact related to land use and planning. However, it should be noted that the site would continue to be underutilized under the No Project alternative, and would not be redeveloped as envisioned by the Belmont 2035 General Plan.

5.1.2.2 Biological Resources

Implementation of the No Project alternative would not result in any new construction within currently undeveloped areas of the site and would therefore not result in the removal of any habitat for special status species or removal of any trees. No impacts to the San Francisco dusky-footed woodrat, a California species of special concern, would occur, and implementation of Mitigation Measure BIO- 1 would not be required to reduce construction-period impacts to this species to a less-than-significant level. Similarly, because tree and vegetation removal activities would not occur, implementation of Mitigation Measures BIO-2 would not be required to avoid impacts to nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. No impact would occur related to interference with wildlife nursery sites or removal of protected trees. Similar to the proposed project, there would be no impact to riparian habitat, protected wetlands, or conflicts with an adopted habitat conservation plan. With implementation of the No Project alternative, there would be no impact on biological resources.

5.1.2.3 Cultural Resources

The No Project alternative would not result in demolition of the existing building on the project site, which was determined to be eligible for inclusion in the City's Historical Resource Inventory and therefore qualifies as a historical resource for the purposes of CEQA. As such, implementation of Mitigation Measure CUL-1 would not be required to reduce this impact to the extent feasible and the significant unavoidable impact to a historic resource as defined in CEQA Guidelines Section 15064.5 identified for the proposed project would not occur. With implementation of the No Project alternative, there would be no impact on historic architectural resources.

5.1.2.4 Transportation

Implementation of the No Project alternative would not result in any increases in automobile, transit, bicycle, or pedestrian travel to or from the project site, as the site is anticipated to remain in its current condition with operation of a permitted commercial use. Therefore, compared to the less than significant impacts of the proposed project, there would be no impact related to conflicts with applicable transportation-related plans, policies and ordinances; design hazards; and emergency access. In addition, the No Project alternative would not result in a change in driving distances associated with the existing use on the site; therefore, there would be no change in the average daily Vehicle Miles Traveled (VMT) per employee within the San Mateo County region. As such, the significant and unavoidable project-specific and cumulative impacts related to VMT would not occur. With implementation of the No Project alternative, there would be no impact related to transportation.

5.1.2.5 Air Quality

Implementation of the No Project alternative would not result in demolition or construction activity within the project site. As a result, pollutant and odor concentrations would not be increased and dust, exhaust, and organic emissions related to construction would not be generated; implementation of Mitigation Measure AIR-1 would not be required to reduce construction-period air quality impacts. Similarly, this alternative would not result in new exposure of residents to toxic air contaminants and Mitigation Measure AIR-2 would not be required. Finally, this alternative would not result in an increased intensity of uses on the site and would not result in an increase in operational vehicle trips in the city; therefore, impacts related to Clean Air Plan implementation would not occur. With implementation of the No Project alternative, there would be no impact on air quality.

5.1.2.6 Greenhouse Gas Emissions

Implementation of the No Project alternative would not result in any demolition or construction activity within the project site, nor would new employees be located on the site. As a result, this alternative would not result in an increase in VMT, daily vehicle trips, or utility use (i.e., electricity, water, and wastewater) on the project site; therefore, the No Project alternative would not result in impacts related to operational-period GHG emissions and potential conflicts with applicable plans, policies, or regulations adopted for the purposes of reducing the emission of GHGs. Mitigation Measure GHG-1 would not be required to ensure that the project complies with electric vehicle parking requirements. The No Project alternative would not result in a conflict with the Bay Air Quality Management District (BAAQMD) emissions thresholds and the significant and unavoidable project impact related to VMT would not occur. With implementation of the No Project alternative, there would be no impact on GHG emissions.

5.1.2.7 Noise

Implementation of the No Project alternative would not result in any demolition or construction activity within the project site, nor would new employees be located on the site. Therefore, the No Project alternative would not expose surrounding land uses to short-term noise or vibration during construction and implementation of Mitigation Measure NOI-1 would not be required. Noise at the project site would not increase above that already occurring on the site and no increase in traffic

noise would occur. Similar to the proposed project, there would be no impact on noise level exposure associated with proximity to an airport. With implementation of the No Project alternative, there would be no impact related to noise.

5.2 REDUCED INTENSITY ALTERNATIVE

The following provides a description of the Reduced Intensity alternative and its anticipated environmental impacts. The emphasis of the analysis is on comparing the anticipated environmental impacts of the Reduced Intensity alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the Reduced Intensity alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

5.2.1 Principal Characteristics

The Reduced Intensity alternative would result in the redevelopment of the project site with an approximately 53,000-square-foot, three-story office/R&D building with two levels of office space above one level of enclosed at-grade parking. The proposed building would be approximately 48 feet in height to the roof line, and would extend to approximately 58 feet with inclusion of the roof screen (if required). This would result in a reduction of approximately 24,525 square feet of use and a reduced building height of one story (14 feet with roof screen) compared to the proposed project. Similar to the proposed project, an approximately 3,400-square-foot rooftop terrace area would be provided for use by employees in the building.

Assuming that the building design would remain the same (except for the top floor of office), there would be 62 parking space within the garage. Based on the reduction in floor area available for office workers, a total of 172 parking spaces would be required for the Reduced Intensity alternative. As no valet service would be required, the approximately 6,500-square-foot area of the site that would include parking for the proposed project could be landscaped with implementation of the Reduced Intensity alternative. As such, associated surface parking would be reduced by 43 spaces as compared to the proposed project, and landscaping would be increased by approximately 17 percent, from 39,000 square feet to 45,500 square feet. Associated circulation and infrastructure improvements would be similar to the proposed project.

Similar to the proposed project, the Reduced Intensity alternative would also include dedication of approximately 14,050 square feet of the southeast corner of the site for future development of a new fire station to replace the existing San Mateo Consolidated Fire Department Station 15. Also similar to the proposed project, the northeast corner of the site would be dedicated to the City to allow for the construction of a new right-turn lane at the Ralston Avenue and Davis Drive intersection. The Reduced Intensity alternative would also require a rezone from E2.2 to Planned Development (PD) to allow development of the site.

5.2.2 Analysis of the Reduced Intensity Alternative

The potential impacts associated with the Reduced Intensity alternative are described below. As discussed, the Reduced Intensity alternative would slightly reduce the less than significant impacts related to air quality and noise identified for the proposed project due to the reduced construction and operation intensity, but would not eliminate any of the required construction-period mitigation

measures. Less-than-significant impacts related to land use and planning and biological resources would be similar to the proposed project. The Reduced Intensity alternative would not avoid or reduce the severity of the significant unavoidable impacts related to cultural resources, transportation, or greenhouse gas emissions.

Although the Reduced Intensity alternative would meet the basic project objectives, redevelopment under the Reduced Intensity would not realize the full development potential of the project site, as envisioned in the Belmont 2035 General Plan.

5.2.2.1 Land Use and Planning

The Reduced Intensity alternative would result in development of a new office/R&D building on the project site, similar to the proposed project, but at a reduced square footage and height. Alteration of Ralston Avenue would also occur, similar to the proposed project, and temporary lane closures would be required during the construction period. Similar to the proposed project, the Reduced Intensity alternative would not result in the physical division of an established community as the changes in land use would be confined to the project site. Similar to the proposed project, the site would be rezoned to the Planned Development (PD) district, to allow development of the site, flexibility in site design, and a change in FAR and height requirements. At 53,00 square feet, the Reduced Intensity alternative would have a FAR of 0.38, compared to the 0.55 FAR for the proposed project. The building height would be reduced from 72 feet to 58 feet (with inclusion of a roof screen), for a reduction in 14 feet. Similar to the proposed project, the Reduced Intensity alternative would not result in any conflicts with any plans, policies, or ordinances adopted for the purposes of avoiding or mitigating an environmental effect. Therefore, similar to the proposed project, impacts to land use and planning would be less than significant.

5.2.2.2 Biological Resources

With implementation of the Reduced Intensity alternative, the new office/R&D building, fire station, Ralston Avenue alignment, and associated landscaping and other improvements would occupy approximately the same development footprint as the proposed project. Proposed surface parking would decrease, but would be replaced with landscaping; therefore, there would be no increase in undisturbed areas of the site, as compared to the proposed project. Therefore, the Reduced Intensity alternative would result in the same impacts related to the disturbance and removal of habitat for special status species and removal of trees. Like the proposed project, Mitigation Measure BIO-1 would be required to reduce impacts to the San Francisco dusky-footed woodrat, a California species of special concern, to a less-than-significant level. Similarly, because tree and vegetation removal activities would also occur, implementation of Mitigation Measures BIO-2 would be required to avoid impacts to nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Similar to the proposed project, impacts related to the interference with wildlife nursery sites or removal of protected trees would be less than significant. Similar to the proposed project, there would be no impact to riparian habitat, protected wetlands, or conflicts with an adopted habitat conservation plan. With implementation of the Reduced Intensity alternative, impacts on biological resources would be less than significant.

5.2.2.3 Cultural Resources

Similar to the proposed project, the Reduced Intensity alternative would result in demolition of the existing building on the project site, which was determined to be eligible for inclusion in the City's Historical Resource Inventory and therefore qualifies as a historical resource for the purposes of CEQA. As such, implementation of Mitigation Measure CUL-1 would be required to reduce this impact to the extent feasible and the significant unavoidable impact to a historic resource as defined in CEQA Guidelines Section 15064.5 identified for the proposed project would also occur. With implementation of the Reduced Intensity alternative, impacts on historic architectural resources would be significant and unavoidable.

5.2.2.4 Transportation

Implementation of the Reduced Intensity alternative would result in an increase in automobile, transit, bicycle, or pedestrian travel to and from the project site, although to a lesser extent than the proposed project. The Reduced Intensity alternative would generate approximately 496 daily trips compared to 718 project trips. Peak hour AM trips would be reduced from 110 to 78 and PM peak hour trips would be reduced from 110 to 79. Similar to the proposed project, impacts related to conflicts with applicable transportation-related plans, policies and ordinances; design hazards; and emergency access would also be less than significant, as general development and site design would be the same.

The Reduced Intensity alternative would also generate new VMT compared to existing conditions, although daily VMT would be reduced from 5,152 to 3,615, for a reduction in 1,537 total daily VMT. As discussed in Section 4.4, Transportation, without the proposed project, the Home-based Work VMT per worker is 24.60. With implementation of the proposed project, including the TDM program, the Home-based Work VMT per worker is 19.70. Therefore, the proposed project's VMT per employee of 19.70 is approximately 34 percent above the threshold of 14.63 VMT per employee. Similarly, the Reduced Intensity alternative would require the implementation of the same or similar TDM measures, and even with implementation of these measures, the Reduced Intensity alternative would also result in a Home-based Work VMT per worker of 19.70, which is also approximately 34 percent above the threshold. Although the Reduced Intensity alternative would result in fewer vehicle trips and a reduction in daily VMT compared to the proposed project, the project site is located in a "high VMT" area (with a Home-based Work VMT per worker of 24.60, which is well above the regional average of 14.63 per employee without the project), meaning that any increase in development intensity at the site is likely to result in a VMT that exceeds the regional average and established VMT metric for new development, even with TDM measures in place. Therefore, although the severity of the impact would be slightly less than the proposed project impact, the significant and unavoidable project-specific and cumulative impacts related to VMT would also result with development of the Reduced Intensity alternative.

5.2.2.5 Air Quality

Implementation of the Reduced Intensity alternative would result in demolition and construction activity within the project site, similar to the proposed project, but to a slightly lesser extent as the total office/R&D building size would be reduced and hardscape areas would also be reduced. As a result, pollutant and odor concentrations would increase and dust, exhaust, and organic emissions related to construction would also be generated. Implementation of Mitigation Measure AIR-1

would be required to reduce construction-period air quality impacts. Similarly, this alternative could result in new exposure of residents to toxic air contaminants during construction and Mitigation Measure AIR-2 would be required. Finally, this alternative would result in an increased intensity of uses on the site and would result in an increase in operational vehicle trips in the city; therefore, impacts related to Clean Air Plan implementation would be similar to the proposed project and would also be less than significant. With implementation of the Reduced Intensity alternative, impacts to air quality would be less than significant.

5.2.2.6 Greenhouse Gas Emissions

Implementation of the Reduced Intensity alternative would result in demolition and construction activity within the project site and an increase in the number of employees on the site, similar to the proposed project, but to a slightly lesser extent as the total office/R&D building size would be reduced and hardscape areas would also be reduced. As a result, this alternative would result in an increase in VMT, daily vehicle trips, and utility use (i.e., electricity, water, and wastewater) on the project site compared to existing conditions. Similar to the proposed project, Mitigation Measure GHG-1 would be required to ensure that the project complies with established BAAQMD design measures adopted for the purpose of reducing GHG emissions. The Reduced Intensity alternative would also result in a similar conflict with BAAQMD emissions thresholds related to VMT as identified for the proposed project, and the significant and unavoidable project impact related to VMT would also occur. The Reduced Intensity alternative would result in similar less than significant impacts related to potential conflicts with applicable plans, policies, or regulations adopted for the purposes of reducing the emission of GHGs as compared to the proposed project.

5.2.2.7 Noise

Implementation of the Reduced Intensity alternative would result in demolition and construction activity within the project site, and an increase in new employees, but to a lesser extent than the proposed project. Therefore, the Reduced Intensity alternative would expose surrounding land uses to short-term noise and vibration during construction and implementation of Mitigation Measure NOI-1 would be required. Similar to the proposed project, noise at the project site would increase above that already occurring on the site and an increase in traffic noise would also occur, though to a lesser extent than the proposed project. Similar to the proposed project, there would be no impact on noise level exposure associated with proximity to an airport. With implementation of the Reduced Intensity alternative, impacts related to noise would be less than significant.

5.3 ROOFTOP ADDITION PRESERVATION ALTERNATIVE

The following provides a description of the Rooftop Addition Preservation alternative and its anticipated environmental impacts. The emphasis of the analysis is on comparing the anticipated environmental impacts of the Rooftop Addition Preservation alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the Rooftop Addition Preservation alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

5.3.1 Principal Characteristics

The Rooftop Addition Preservation alternative would result in alterations to the interior and exterior of the existing building to allow for improvements to accommodate new office and R&D tenants. The existing single-story building would be retained in its current location and one vertical floor addition with a total setback that equals approximately 150 percent of the total wall height of the main façade would be constructed. Given that the existing one-story building is currently 25 feet in height, a setback of approximately 38 feet would be required, allowing for a 14,000-square-foot second story addition. This addition would result in a two-story building that would accommodate approximately 35,500 square feet of office and R&D uses. The proposed building would be approximately 40 feet in height to the roof line, with the 15-foot addition. An additional 15 feet would be required for mechanical screening, for a total building height of 55 feet.

Similar to the proposed project, the Rooftop Addition Preservation alternative would also include dedication of a portion of the site for future development of a new fire station to replace the existing San Mateo Consolidated Fire Department Station 15. However, the fire station parcel would be reduced from 14,050 square feet to 13,400 square feet and would be located at the far southwest corner of the site, rather than closer to Davis Drive. Access to the planned fire station would occur through a shared access driveway from Davis Drive. Fire apparatus would use the parking lot driveway to back into the fire station when returning from a call.

Existing site circulation patterns would generally be retained under this alternative, with primary pedestrian and vehicular access provided by Davis Drive. A second pedestrian entrance to the building would be located on the west side of the building to connect to an existing sidewalk along Ralston Avenue. The existing driveway would be extended to a new surface parking lot, to be located on the west side of the building, and the fire station parcel. The planned fire station would share the access driveway with the existing building and an access easement or agreement would be required. Fire apparatus would have to use the parking lot driveway to back into the fire station.

The existing visitor parking area would remain and the new surface lot would be developed in the existing undeveloped open space area. A total of 130 parking spaces would be provided to comply with City zoning requirements.

Similar to the proposed project, new retaining walls would be constructed at the northwest boundary of the site, and a new stormwater treatment area would be located at the corner of Ralston Avenue and Davis Drive. Four trees would be removed, consisting of two coastal live oaks and two olive trees. Remaining trees would be preserved. Associated landscaping and infrastructure improvements would be similar to the proposed project, although no rooftop open space would be provided. Approximately 24,476 square feet of landscaping would be provided.

Similar to the proposed project, the northeast corner of the site would be dedicated to the City to allow for the construction of a new right-turn lane at the Ralston Avenue and Davis Drive intersection. The Rooftop Addition Preservation alternative would also require a rezone from E2.2 to Planned Development (PD) to allow development.

Figure 5-1 shows the conceptual site plan for the Rooftop Addition Preservation alternative. Figures 5-2 and 5-3 show the conceptual views of the site from Ralston Avenue and Davis Drive.

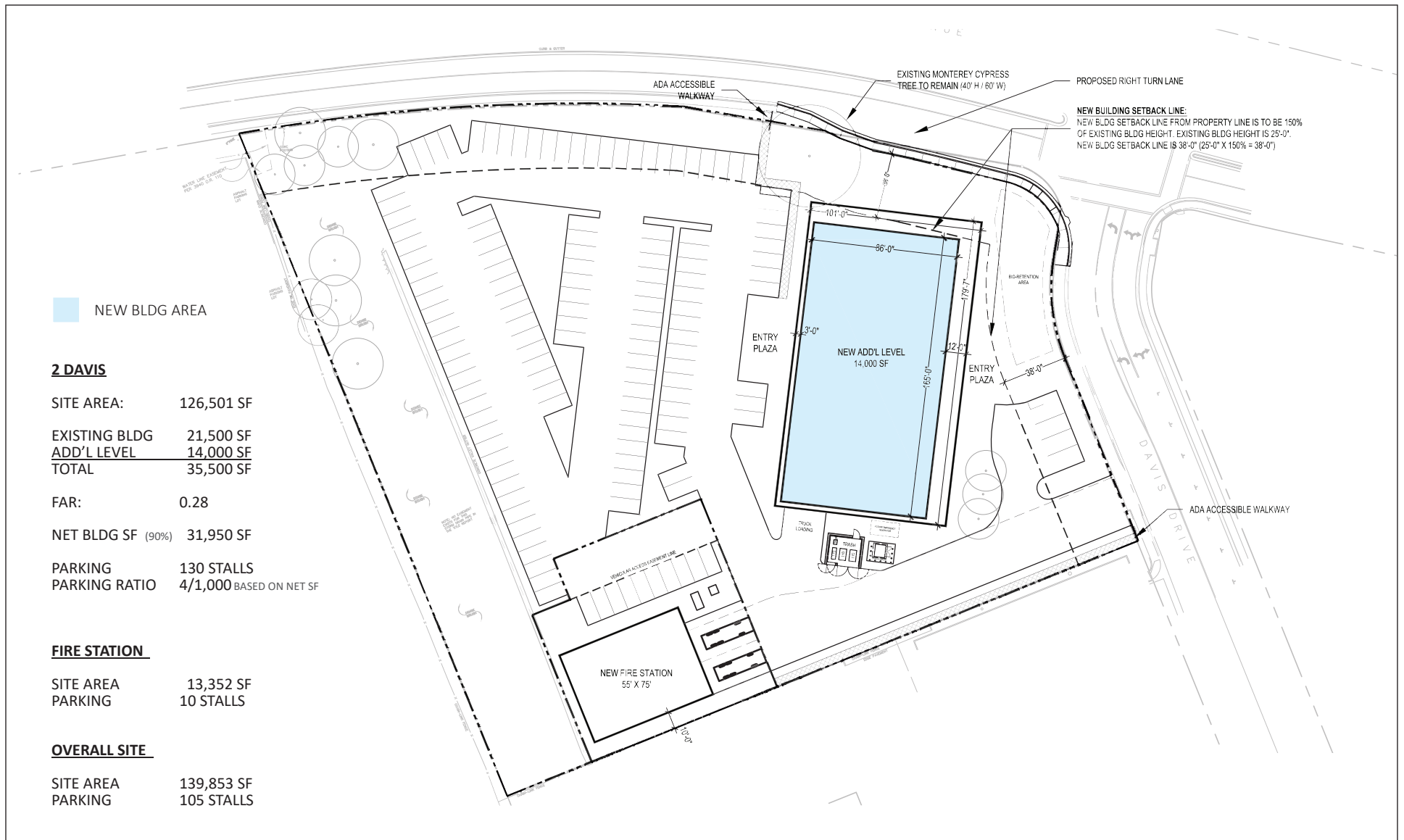
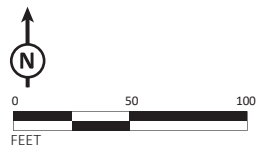


FIGURE 5-1

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FIGURE 5-2

2 Davis Drive Project EIR
Rooftop Addition Preservation Alternative - Conceptual View
from Corner of Ralston Avenue and Davis Drive

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FIGURE 5-3

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5.3.2 Analysis of the Rooftop Addition Preservation Alternative

The potential impacts associated with the Rooftop Addition Preservation alternative are described below. As discussed, the Rooftop Addition Preservation alternative would slightly reduce the less than significant impacts related to air quality and noise identified for the proposed project due to the reduced demolition, construction, and operation intensity, but would not eliminate any of the required construction-period mitigation measures. Less-than-significant impacts related to land use and planning and biological resources would be similar to the proposed project. The Rooftop Addition Preservation alternative would not avoid or reduce the severity of the significant unavoidable impacts related to cultural resources, transportation, or greenhouse gas emissions. In addition, the Rooftop Addition Preservation alternative would result in new significant and unavoidable impacts related to design hazards and emergency access.

The Rooftop Addition Preservation alternative would meet most of the basic project objectives, but would not realize the full development potential of the project site, as envisioned in the Belmont 2035 General Plan. Furthermore, the Rooftop Addition Preservation Alternative would not fully meet the objective of providing a new fire station to provide better service to the surrounding neighborhoods, as the location, design, and access to the Fire Station under this alternative would result in new hazards and reduced efficiency in emergency response.

5.3.2.1 Land Use and Planning

The Rooftop Addition Preservation alternative would result in a one-story vertical addition to the existing warehouse building on the site and exterior and interior renovations to allow new office/R&D uses, similar to the proposed project, but at a reduced square footage and height. Alteration of Ralston Avenue would also occur, similar to the proposed project, and temporary lane closures would be required during the construction period. Similar to the proposed project, the Rooftop Addition Preservation alternative would not result in the physical division of an established community as the changes in land use would be confined to the project site.

Similar to the proposed project, the site would be rezoned to the Planned Development (PD) district, to allow development of the site, flexibility in site design, and a change in FAR and height requirements. At 35,500 square feet, the Rooftop Addition Preservation alternative would have a FAR of 0.28, compared to the 0.55 FAR for the proposed project. The building height would be reduced from 72 feet to 55 feet (with inclusion of a roof screen), for a reduction in 17 feet. Similar to the proposed project, the Rooftop Addition Preservation alternative would not result in any conflicts with any plans, policies, or ordinances adopted for the purposes of avoiding or mitigating an environmental effect. However, with relocation of the planned fire station away from Davis Drive and the need to share the existing access driveway, emergency access to and from the site may be impaired, resulting in a potential inconsistency with General Plan Policy 6.6-3. Similar to the proposed project, impacts to land use and planning would be less than significant.

5.3.2.2 Biological Resources

With implementation of the Rooftop Addition Preservation alternative, the new office/R&D building, fire station, Ralston Avenue alignment, and associated landscaping and other improvements would occupy approximately the same development footprint as the proposed project. Therefore, there would be no increase in undisturbed areas of the site, as compared to the proposed project.

However, only four trees would be removed, rather than the seven identified for removal by the proposed project. Therefore, the Rooftop Addition Preservation alternative would result in the same or similar impacts related to the disturbance and removal of habitat for special status species and removal of trees. Like the proposed project, Mitigation Measure BIO-1 would be required to reduce impacts to the San Francisco dusky-footed woodrat, a California species of special concern, to a less-than-significant level. Similarly, because tree and vegetation removal activities would also occur, implementation of Mitigation Measures BIO-2 would be required to avoid impacts to nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Similar to the proposed project, impacts related to the interference with wildlife nursery sites or removal of protected trees would be less than significant. Similar to the proposed project, there would be no impact to riparian habitat, protected wetlands, or conflicts with an adopted habitat conservation plan. With implementation of the Rooftop Addition Preservation alternative, impacts on biological resources would be less than significant.

5.3.2.3 Cultural Resources

The Rooftop Addition Preservation alternative would retain the existing building on the project site, which was determined to be eligible for inclusion in the City's Historical Resource Inventory and therefore qualifies as a historical resource for the purposes of CEQA. The Rooftop Addition Preservation alternative was developed with the intention of complying with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings (Secretary's Standards). This guidance indicates that a rooftop addition to a historic structure is "generally" not appropriate for existing buildings of three stories or less and that additions to historic structures should not be highly visible from the public right-of-way.

Under this alternative, the second story would be added to an existing one-story structure and the total setback of the rooftop addition would equal approximately 150 percent of the total wall height of the main façade of the existing building. Specifically, the addition would be stepped back approximately 12 feet from the first-story façades on Ralston Avenue and Davis Drive. However, the total height of the rooftop addition with mechanical features would be approximately 30 feet, which is 5 feet taller than the existing one-story building. To be compliant with the Secretary Standards, the building addition should not be greater either in size or in mass so as not to compete with the ground floor configuration. In addition, due to the existing topography and vegetation, the existing building and addition would be substantially visible from adjacent roadways, as shown in Figures 5-2 and 5-3.

Because this alternative would not meet either of the criteria of the Secretary's Standards, this impact would be significant. As such, implementation of Mitigation Measure CUL-1 would be required to reduce this impact to the extent feasible; however, the significant unavoidable impact to a historic resource as defined in CEQA Guidelines Section 15064.5 identified for the proposed project would also occur. Additional mitigation measures would be required to reduce the height and massing of the proposed addition, further step back the addition from the adjacent roadways, and redesign the location of mechanical features. With implementation of the Rooftop Addition Preservation alternative, impacts on historic architectural resources would be significant and unavoidable.

5.3.2.4 Transportation

Implementation of the Rooftop Addition Preservation alternative would result in an increase in automobile, transit, bicycle, or pedestrian travel to and from the project site, although to a lesser extent than the proposed project. The Rooftop Addition Preservation alternative would generate approximately 307 daily trips compared to 718 project trips. Peak hour AM trips would be reduced from 110 to 51 and PM peak hour trips would be reduced from 110 to 53. Similar to the proposed project, impacts related to conflicts with applicable transportation-related plans, policies and ordinances, would be less than significant, as general development and would be the same.

The Rooftop Addition Preservation alternative would also generate new VMT compared to existing conditions, although daily VMT would be reduced from 5,152 to 2,295, for a reduction in 2,857 total daily VMT. As discussed in Section 4.4, Transportation, without the proposed project, the Home-based Work VMT per worker is 24.60. With implementation of the proposed project, including the TDM program, the Home-based Work VMT per worker is 19.70. Therefore, the proposed project's VMT per employee of 19.70 is approximately 34 percent above the threshold of 14.63 VMT per employee. Similarly, the Rooftop Addition Preservation alternative would require the implementation of the same or similar TDM measures, and even with implementation of these measures, the Rooftop Addition Preservation alternative would also result in a Home-based Work VMT per worker of 19.70, which is also approximately 34 percent above the threshold. Although the Rooftop Addition alternative would result in fewer vehicle trips and a reduction in daily VMT compared to the proposed project, the project site is located in a "high VMT" area (with a Home-based Work VMT per worker of 24.60, which is well above the regional average of 14.63 per employee without the project), meaning that any increase in development intensity at the site is likely to result in a VMT that exceeds the regional average and established VMT metric for new development, even with TDM measures in place. Therefore, although the severity of the impact would be slightly less than the proposed project impact, the significant and unavoidable project-specific and cumulative impacts related to VMT would also result with development of the Rooftop Addition Preservation alternative.

In addition, the Rooftop Addition Preservation alternative would result in a reconfiguration of the proposed site design and access, as compared to the proposed project. Specifically, access to the planned fire station would occur through a shared access driveway from Davis Drive. Fire apparatus would have to use the parking lot driveway to back into the fire station when returning from a call. These design and access constraints would substantially reduce the effective operations of the fire station and ability of emergency personnel to respond to emergency situations. When vehicles associated with the office/R&D use are queued in the driveway waiting at the light on Ralston Avenue and Davis Drive, emergency personnel would either have to wait or go against traffic. Elimination of the drive through station design and the requirement to back into the station would reduce efficiencies and potentially result in vehicle conflicts within the parking areas. Since these impacts are due to design constraints, no mitigation measures are available to reduce this impact. Therefore, unlike the proposed project, the Rooftop Addition Preservation alternative would result in a significant unavoidable impact related to design hazards and emergency access.

5.3.2.5 Air Quality

Implementation of the Rooftop Addition Preservation alternative would result in demolition and construction activity within the project site, similar to the proposed project, but to a slightly lesser extent as the existing building would not be demolished, and the total office/R&D building size would be reduced. Grading activities would also be reduced. As a result, pollutant and odor concentrations would increase and dust, exhaust, and organic emissions related to construction would also be generated, though to a lesser extent than the proposed project. Implementation of Mitigation Measure AIR-1 would be required to reduce construction-period air quality impacts. Similarly, this alternative could result in new exposure of residents to toxic air contaminants during construction and Mitigation Measure AIR-2 would be required. Finally, this alternative would result in an increased intensity of uses on the site and would result in an increase in operational vehicle trips in the city; therefore, impacts related to Clean Air Plan implementation would be similar to the proposed project and would also be less than significant. With implementation of the Rooftop Addition Preservation alternative, impacts to air quality would be less than significant.

5.3.2.6 Greenhouse Gas Emissions

Implementation of the Rooftop Addition Preservation alternative would result in demolition and construction activity within the project site and an increase in the number of employees on the site, similar to the proposed project, but to a slightly lesser extent as the total office/R&D building size would be reduced. As a result, this alternative would result in an increase in VMT, daily vehicle trips, and utility use (i.e., electricity, water, and wastewater) on the project site compared to existing conditions. Similar to the proposed project, Mitigation Measure GHG-1 would be required to ensure that the project complies with established BAAQMD design measures adopted for the purpose of reducing GHG emissions. The Rooftop Addition Preservation alternative would also result in a similar conflict with BAAQMD emissions thresholds related to VMT as identified for the proposed project, and the significant and unavoidable project impact related to VMT would also occur. The Rooftop Addition Preservation alternative would result in similar less than significant impacts related to potential conflicts with applicable plans, policies, or regulations adopted for the purposes of reducing the emission of GHGs as compared to the proposed project.

5.3.2.7 Noise

Implementation of the Rooftop Addition Preservation alternative would result in demolition and construction activity within the project site, and an increase in new employees, but to a lesser extent than the proposed project. Therefore, the Rooftop Addition Preservation alternative would expose surrounding land uses to short-term noise and vibration during construction and implementation of Mitigation Measure NOI-1 would be required. Similar to the proposed project, noise at the project site would increase above that already occurring on the site and an increase in traffic noise would also occur, though to a lesser extent than the proposed project. Similar to the proposed project, there would be no impact on noise level exposure associated with proximity to an airport. With implementation of the Rooftop Addition Preservation alternative, impacts related to noise would be less than significant.

5.4 ATTACHED ADDITION PRESERVATION ALTERNATIVE

The following provides a description of the Attached Addition Preservation alternative and its anticipated environmental impacts. The emphasis of the analysis is on comparing the anticipated environmental impacts of the Attached Addition Preservation alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the Attached Addition Preservation alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

5.4.1 Principal Characteristics

The Attached Addition Preservation alternative would result in interior and exterior alterations to the existing building and construction of an attached addition to allow for improvements and expansion to accommodate new office and R&D tenants, while adhering to the Secretary of Interior's Standards for the Treatment of Historic Properties. The existing single-story building would be retained in its current location. A two-story approximately 24,000-square-foot addition would be added to the west side of the building, for a total of 45,000 square feet of existing and added floor area. The proposed addition would be approximately 30 feet in height to the roof line, with an additional 15 feet for mechanical screening, for a total building height of 45 feet.

Similar to the proposed project, the Attached Addition Preservation alternative would also include dedication of a portion of the site for future development of a new fire station to replace the existing San Mateo Consolidated Fire Department Station 15. However, the fire station parcel would be reduced from 14,050 square feet to 13,400 square feet and would be located at the far southwest corner of the site, rather than closer to Davis Drive. Access to the planned fire station would occur through a shared access driveway from Davis Drive. Fire apparatus would use the parking lot driveway to back into the fire station when returning from a call.

Existing site circulation patterns would generally be retained under this alternative, with primary pedestrian and vehicular access provided by Davis Drive. A second pedestrian entrance to the building addition would be located on the south side of the building to connect to a parking lot. The existing driveway would be extended to a new surface parking lot, to be located on the south and west sides of the addition, and the fire station parcel. The planned fire station would share the access driveway with the existing building and an access easement or agreement would be required. Fire apparatus would have to use the parking lot driveway to back into the fire station.

The existing visitor parking area would remain and the new surface lot would be developed in the existing undeveloped open space area. A total of 95 parking spaces would be provided, which would require a variance from City zoning requirements.

Similar to the proposed project, new retaining walls would be constructed at the northwest boundary of the site, and a new stormwater treatment area would be located at the corner of Ralston Avenue and Davis Drive. Three trees would be removed, consisting of one coast live oak and two olive trees. Remaining trees would be preserved. Associated landscaping and infrastructure improvements would be similar to the proposed project, although no rooftop open space would be provided. Approximately 25,836 square feet of landscaping would be provided.

Similar to the proposed project, the northeast corner of the site would be dedicated to the City to allow for the construction of a new right-turn lane at the Ralston Avenue and Davis Drive intersection. The Attached Addition Preservation alternative would also require a rezone from E2.2 to Planned Development (PD) to allow development.

Figure 5-4 shows the conceptual site plan for the Attached Addition Preservation alternative. Figures 5-5 and 5-6 show the conceptual views of the site from Ralston Avenue and Davis Drive.

5.4.2 Analysis of the Attached Addition Preservation Alternative

The potential impacts associated with the Attached Addition Preservation alternative are described below. As discussed, the Attached Addition Preservation alternative would slightly reduce the less than significant impacts related to air quality and noise identified for the proposed project due to the reduced demolition, construction, and operation intensity, but would not eliminate any of the required construction-period mitigation measures. Less-than-significant impacts related to land use and planning and biological resources would be similar to the proposed project. The Attached Addition Preservation alternative would not avoid or reduce the severity of the significant unavoidable impacts related to transportation or greenhouse gas emissions. Although this alternative would reduce the significant unavoidable impact to cultural resources to a less-than-significant level, the Attached Addition Preservation alternative would result in new significant and unavoidable impacts related to design hazards and emergency access.

The Attached Addition Preservation alternative would meet most of the basic project objectives, but would not realize the full development potential of the project site, as envisioned in the Belmont 2035 General Plan. Furthermore, the Attached Addition Preservation Alternative would not fully meet the objective of providing a new fire station to provide better service to the surrounding neighborhoods, as the location, design, and access to the Fire Station under this alternative would result in new hazards and reduced efficiency in emergency response.

5.4.2.1 Land Use and Planning

The Attached Addition Preservation alternative would result in a two-story addition immediately to the west of the existing warehouse building on the site and exterior and interior renovations to allow new office/R&D uses, similar to the proposed project, but at a reduced square footage and height, and expanded building footprint. Alteration of Ralston Avenue would also occur, similar to the proposed project, and temporary lane closures would be required during the construction period. Similar to the proposed project, the Attached Addition Preservation alternative would not result in the physical division of an established community as the changes in land use would be confined to the project site.

Similar to the proposed project, the site would be rezoned to the Planned Development (PD) district, to allow development of the site, flexibility in site design, and a change in FAR and height requirements. At 45,000 square feet, the Attached Addition Preservation alternative would have a FAR of 0.36, compared to the 0.55 FAR for the proposed project. The building height would be reduced from 72 feet to 45 feet (with inclusion of a roof screen), for a reduction in 27 feet.

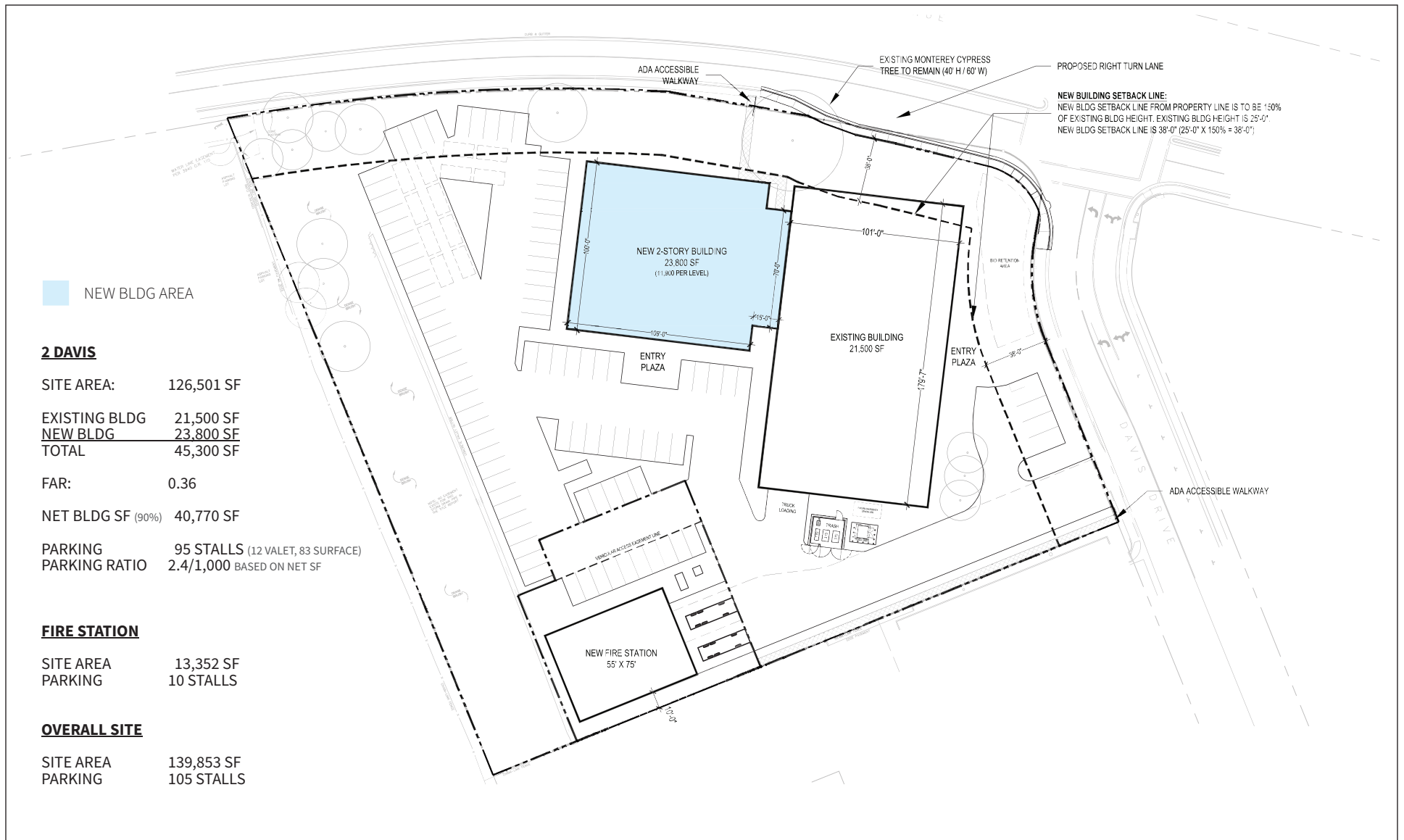
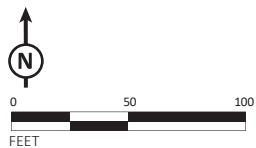


FIGURE 5-4

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FIGURE 5-5

2 Davis Drive Project EIR
Attached Addition Preservation Alternative - Conceptual View
from Corner of Ralston Avenue and Davis Drive

SOURCE: DES ARCHITECTS & ENGINEERS, 12/16/2022

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FIGURE 5-6

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Similar to the proposed project, the Attached Addition Preservation alternative would not result in any conflicts with any plans, policies, or ordinances adopted for the purposes of avoiding or mitigating an environmental effect. However, with relocation of the planned fire station away from Davis Drive and the need to share the existing access driveway, emergency access to and from the site may be impaired, resulting in a potential inconsistency with General Plan Policy 6.6-3. Similar to the proposed project, impacts to land use and planning would be less than significant.

5.4.2.2 Biological Resources

With implementation of the Attached Addition Preservation alternative, the new office/R&D building addition, fire station, Ralston Avenue alignment, and associated landscaping and other improvements would occupy approximately the same development footprint as the proposed project. Therefore, there would be no increase in undisturbed areas of the site, as compared to the proposed project. However, only three trees would be removed, rather than the seven identified for removal by the proposed project. Therefore, the Attached Addition Preservation alternative would result in the same or similar impacts related to the disturbance and removal of habitat for special status species and removal of trees. Like the proposed project, Mitigation Measure BIO-1 would be required to reduce impacts to the San Francisco dusky-footed woodrat, a California species of special concern, to a less-than-significant level. Similarly, because tree and vegetation removal activities would also occur, implementation of Mitigation Measures BIO-2 would be required to avoid impacts to nesting birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Similar to the proposed project, impacts related to the interference with wildlife nursery sites or removal of protected trees would be less than significant. Similar to the proposed project, there would be no impact to riparian habitat, protected wetlands, or conflicts with an adopted habitat conservation plan. With implementation of the Attached Addition Preservation alternative, impacts on biological resources would be less than significant.

5.4.2.3 Cultural Resources

The Attached Addition Preservation alternative would retain the existing building on the project site, which was determined to be eligible for inclusion in the City's Historical Resource Inventory and therefore qualifies as a historical resource for the purposes of CEQA. The Attached Addition Preservation alternative was developed with the intention of complying with the Secretary Standards. This guidance indicates that additions to historic structures should not be highly visible from the public right-of-way.

While the two-story adjacent addition would be visible from adjacent Ralston Avenue and Davis Drive, visibility would be partially obscured due to existing topography and vegetation and proposed landscaping, as shown in Figures 5-4 and 5-5. In addition, the new structure would be connected to, but clearly differentiated from, the existing building through installation of a building connector, while maintaining the existing building configuration and façade. The addition design also reflects a more recent contemporary aesthetic that is sufficiently differentiated from the existing building. Because this alternative would meet the requirements of the Secretary's Standards for the preservation of historic properties, this impact would be less than significant. However, implementation of modified Mitigation Measure CUL-1 would be required to further reduce this impact to the extent feasible and ensure that existing conditions of the historic resource are

properly documented. With implementation of the Attached Addition Preservation alternative, impacts on historic architectural resources would be less than significant.

5.4.2.4 Transportation

Implementation of the Attached Addition Preservation alternative would result in an increase in automobile, transit, bicycle, or pedestrian travel to and from the project site, although to a lesser extent than the proposed project. The Attached Addition Preservation alternative would generate approximately 421 daily trips compared to 718 project trips. Peak hour AM trips would be reduced from 110 to 67 and PM peak hour trips would be reduced from 110 to 69. Similar to the proposed project, impacts related to conflicts with applicable transportation-related plans, policies and ordinances, would be less than significant, as general development and would be the same.

The Attached Addition Preservation alternative would also generate new VMT compared to existing conditions, although daily VMT would be reduced from 5,152 to 3,083, for a reduction in 2,069 total daily VMT. As discussed in Section 4.4, Transportation, without the proposed project, the Home-based Work VMT per worker is 24.60. With implementation of the proposed project, including the TDM program, the Home-based Work VMT per worker is 19.70. Therefore, the proposed project's VMT per employee of 19.70 is approximately 34 percent above the threshold of 14.63 VMT per employee. Similarly, the Attached Addition Preservation alternative would require the implementation of the same or similar TDM measures, and even with implementation of these measures, the Attached Addition Preservation alternative would also result in a Home-based Work VMT per worker of 19.70, which is also approximately 34 percent above the threshold. Although the Attached Addition Preservation alternative would result in fewer vehicle trips and a reduction in daily VMT compared to the proposed project, the project site is located in a "high VMT" area (with a Home-based Work VMT per worker of 24.60, which is well above the regional average of 14.63 per employee without the project), meaning that any increase in development intensity at the site is likely to result in a VMT that exceeds the regional average and established VMT metric for new development, even with TDM measures in place. Therefore, although the severity of the impact would be slightly less than the proposed project impact, the significant and unavoidable project-specific and cumulative impacts related to VMT would also result with development of the Attached Addition Preservation alternative.

In addition, the Attached Addition Preservation alternative would result in a reconfiguration of the proposed site design and access, as compared to the proposed project. Specifically, access to the planned fire station would occur through a shared access driveway from Davis Drive. Fire apparatus would have to use the parking lot driveway to back into the fire station when returning from a call. These design and access constraints would substantially reduce the effective operations of the fire station and ability of emergency personnel to respond to emergency situations. When vehicles associated with the office/R&D use are queued in the driveway waiting at the light on Ralston Avenue and Davis Drive, emergency personnel would either have to wait or go against traffic. Elimination of the drive through station design and the requirement to back into the station would reduce efficiencies and potentially result in vehicle conflicts within the parking areas. Since these impacts are due to design constraints, no mitigation measures are available to reduce this impact. Therefore, unlike the proposed project, the Attached Addition Preservation alternative would result in a significant unavoidable impact related to design hazards and emergency access.

5.4.2.5 Air Quality

Implementation of the Attached Addition Preservation alternative would result in demolition and construction activity within the project site, similar to the proposed project, but to a slightly lesser extent as the existing building would not be demolished, and the total office/R&D building size would be reduced. Grading activities would be similar to the proposed project. As a result, pollutant and odor concentrations would increase and dust, exhaust, and organic emissions related to construction would also be generated, though to a lesser extent than the proposed project. Implementation of Mitigation Measure AIR-1 would be required to reduce construction-period air quality impacts. Similarly, this alternative could result in new exposure of residents to toxic air contaminants during construction and Mitigation Measure AIR-2 would be required. Finally, this alternative would result in an increased intensity of uses on the site and would result in an increase in operational vehicle trips in the city; therefore, impacts related to Clean Air Plan implementation would be similar to the proposed project and would also be less than significant. With implementation of the Attached Addition Preservation alternative, impacts to air quality would be less than significant.

5.4.2.6 Greenhouse Gas Emissions

Implementation of the Attached Addition Preservation alternative would result in demolition and construction activity within the project site and an increase in the number of employees on the site, similar to the proposed project, but to a slightly lesser extent as the total office/R&D building size would be reduced. As a result, this alternative would result in an increase in VMT, daily vehicle trips, and utility use (i.e., electricity, water, and wastewater) on the project site compared to existing conditions. Similar to the proposed project, Mitigation Measure GHG-1 would be required to ensure that the project complies with established BAAQMD design measures adopted for the purpose of reducing GHG emissions. The Attached Addition Preservation alternative would also result in a similar conflict with BAAQMD emissions thresholds related to VMT as identified for the proposed project, and the significant and unavoidable project impact related to VMT would also occur. The Attached Addition Preservation alternative would result in similar less than significant impacts related to potential conflicts with applicable plans, policies, or regulations adopted for the purposes of reducing the emission of GHGs as compared to the proposed project.

5.4.2.7 Noise

Implementation of the Attached Addition Preservation alternative would result in demolition and construction activity within the project site, and an increase in new employees, but to a lesser extent than the proposed project. Therefore, the Attached Addition Preservation alternative would expose surrounding land uses to short-term noise and vibration during construction and implementation of Mitigation Measure NOI-1 would be required. Similar to the proposed project, noise at the project site would increase above that already occurring on the site and an increase in traffic noise would also occur, though to a lesser extent than the proposed project. Similar to the proposed project, there would be no impact on noise level exposure associated with proximity to an airport. With implementation of the Attached Addition Preservation alternative, impacts related to noise would be less than significant.

5.5 ALTERNATIVES CONSIDERED BUT NOT SELECTED FOR FURTHER ANALYSIS

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 (see Appendix A of this EIR). 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.

- **Off-Site Locations.** Although relocation of the proposed project to an area with low VMT could avoid the VMT impact of the project, an alternative location was not considered for analysis because the project sponsor does not own or would not feasibly otherwise be able to gain control of a suitable vacant site within the city. In addition, major objectives of the project are specific to the project site and include redevelopment of the currently underutilized site and dedication of land for the new fire station to serve the surrounding community. An alternative location would fail to meet these objectives of the project. Therefore, such an alternative was ultimately not selected for further analysis in the EIR.
- **Residential Use.** Residential uses were considered as a potential alternative use for the project site. This would require a change in the General Plan land use designation to High Density Residential (21-36 units/acre), which is a similar level of density as surrounding residential, commercial, and institutional uses. The site would also be rezoned to R-4 (High Density Residential). Under the R-4 zoning, a maximum of 80 one-bedroom residential units could be developed on the site within an approximately four-story (50-foot-tall with an additional potential 8 feet of elevator overruns and mechanical features), 176,169-square-foot building at a FAR of 1.4. A total of 160 covered/uncovered parking spaces would be required. Development of residential uses on the site may also require on- and off-site access and circulation improvements. Residential uses would have a lower trip generation potential compared to the proposed project (approximately 700 fewer daily trips, 94 fewer AM peak hour trips, and 87 fewer PM peak hour trips including credit for existing site trips), due to the number of units that can be accommodated on the site compared to the number of employees that would be generated by the proposed project; however, residential uses would generate new VMT and, similar to the proposed project, a TDM program would likely be required to reduce VMT to below established significance thresholds, if feasible. San Mateo County's VMT per resident is 13.56. Therefore, a 15 percent reduction would result in a threshold of 11.5 VMT per resident. Without this alternative, the Home-based VMT per resident is 16.6. With implementation of this alternative, the Home-based VMT per resident is 13.3, which would be 9 percent above the regional average. This would eliminate the significant unavoidable VMT related impacts of the proposed project (Impacts TRA-1 and GHG-1). However, because the overall development intensity of a potential residential use project would be greater than the proposed project and none of the project objectives would be achieved, this alternative was not selected for further analysis.
- **No Net VMT Increase.** An alternative that would result in no net increase in VMT emissions would likely not be feasible without development and implementation of programs that would increase the availability of alternative modes of transit within the City as a whole. Such improvements cannot be developed and implemented by individual project sponsors. A no net VMT increase could also be achieved by replacing the existing use with a similar use (i.e.,

approximately 21,500 square feet of office use). A no net VMT increase could also be achieved through participation in a cap-and-trade program, where the project sponsor would purchase credits to offset VMT produced by the project. However, a cap-and-trade program for VMT does not currently exist, and therefore VMT reduction on the site would be limited by the factors listed above. Therefore, this alternative was not selected for further analysis.

- **No Fire Station Relocation.** This alternative would result in redevelopment of the project site as described for the proposed project, with the exception that land would not be dedicated for future relocation of Fire Station 15. Under this alternative, the existing fire station located at 2701 Cipriani Boulevard would continue to deteriorate and the building would either need to be remodeled or replaced on site or at a new off-site location. Currently, land for a relocated fire station is not available at other sites in the vicinity. In any event, impacts associated with the proposed project are not attributed to the relocated fire station and no impacts would be lessened or avoided under this alternative. Therefore, this alternative was not selected for further analysis.

5.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Based on the above analysis, the No Project alternative would have the fewest impacts and would be the environmentally superior alternative. Under CEQA, if the No Project alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). While the No Project alternative would be environmentally superior in the technical sense in that contribution to the aforementioned impacts would not occur, it would also fail to achieve any of the project's objectives.

As discussed above and shown in Table 5.A below, the Reduced Intensity alternative would slightly reduce some of the potentially significant impacts of the proposed project through reduced construction and operational building intensities, although none of the significant unavoidable project impacts would be avoided and all project mitigation measures would still be required. The project objectives would also be met, although to a slightly lesser extent than the proposed project. The Rooftop Addition and Attached Addition Preservation alternatives would slightly reduce or avoid some of the less than significant and/or significant unavoidable impacts of the proposed project, but not meet the basic project objectives, and would result in new significant and unavoidable impacts. Therefore, the Reduced Intensity alternative is considered the environmentally superior alternative.

Table 5.A: Proposed Project and Project Alternatives Impact Comparison

Environmental Impacts	Proposed Project (Without/With Mitigation)	No Project Alternative (Without/With Mitigation)	Reduced Intensity Alternative (Without/With Mitigation)	Rooftop Addition Preservation Alternative (Without/With Mitigation)	Attached Addition Preservation Alternative (Without/With Mitigation)
4.1 Land Use and Planning					
The proposed project would not physically divide an established community.	LTS	NI	~LTS	~LTS	~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	NI	~LTS	~LTS	~LTS
4.2 Biological Resources					
Construction of and operation of the proposed project could adversely affect San Francisco dusky-footed woodrats, a California special species of concern (Impact BIO-1).	S LTS/M	NI	~S LTS/M	~S LTS/M	~S LTS/M
The proposed project would not adversely affect riparian habitat or a sensitive natural community.	NI	NI	NI	NI	NI
The proposed project would not adversely affect protected wetlands.	NI	NI	NI	NI	NI
Tree and vegetation removal activities occurring during project construction could result in direct impacts to nesting birds, which are protected by the Migratory Bird Treaty Act and California Fish and Game Code (Impact BIO-2).	S LTS/M	NI	~S LTS/M	<S LTS/M	<S LTS/M
The proposed project would not conflict with applicable policies or ordinances protecting biological resources.	LTS	NI	~LTS	<LTS	<LTS
The proposed project would not conflict with an adopted habitat conservation plan.	NI	NI	NI	NI	NI
4.3 Cultural Resources					
Demolition of the existing building on the project site would have a substantial adverse change on a historical resource, as defined in CEQA Guidelines Section 15064.5 (Impact CUL-1).	S SU	NI	~S SU	~S SU	LTS
4.4 Transportation					
The proposed project would not conflict with an applicable plan, ordinance, or policy, including the congestion management program, addressing all components of the circulation system.	LTS	NI	~LTS	~LTS	~LTS
The proposed project would exceed applicable VMT thresholds of significance (Impact TRA-1).	SU	NI	~SU	~SU	~SU
The proposed project would not substantially increase hazards due to a design feature or incompatible uses.	LTS	NI	LTS	SU	SU

Table 5.A: Proposed Project and Project Alternatives Impact Comparison

Environmental Impacts	Proposed Project (Without/With Mitigation)	No Project Alternative (Without/With Mitigation)	Reduced Intensity Alternative (Without/With Mitigation)	Rooftop Addition Preservation Alternative (Without/With Mitigation)	Attached Addition Preservation Alternative (Without/With Mitigation)
Result in inadequate emergency access.	LTS	NI	LTS	SU	SU
The proposed project, in combination with cumulative projects, would exceed the existing VMT thresholds of significance (Impact TRA-2).	SU	NI	~SU	~SU	~SU
4.5 Air Quality					
The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.	LTS	NI	<LTS	<LTS	<LTS
Construction of the proposed project would generate air pollutant emissions that could violate air quality standards (Impact AIR-1).	S LTS/M	NI	<S LTS/M	<S LTS/M	<S LTS/M
Construction of the proposed project would expose sensitive receptors to substantial pollutant concentrations.	S LTS/M	NI	<S LTS/M	<S LTS/M	<S LTS/M
The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	NI	<LTS	<LTS	<LTS
4.6 Greenhouse Gas Emissions					
The proposed project would generate GHG emissions that may have a significant impact on the environment (Impact GHG-1).	S SU/M	NI	~S SU/M	~S SU/M	~S SU/M
The proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.	LTS	NI	~LTS	~LTS	~LTS
4.5 Noise					
Noise from construction activities at the project site would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (Impact NOI-1)	S LTS/M	NI	<S LTS/M	<S LTS/M	<S LTS/M
The proposed project would not generate excessive groundborne vibration or groundborne noise levels.	LTS	NI	<LTS	<LTS	<LTS
The proposed project would not expose people residing or working in the area to excessive airport noise levels	LTS	NI	~LTS	~LTS	<LTS

Source: Compiled by LSA (2023).

~S = Similar to proposed project

<S = Incrementally less than proposed project

>S = Incrementally greater than proposed project

LTS = Less than significant

LTS/M = Less than significant with mitigation

NI = No Impact

S = Significant

SU = Significant unavoidable

SU/M = Significant unavoidable with mitigation

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6.0 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 unavoidable effects.

6.1 GROWTH-INDUCING IMPACTS

This section summarizes the project's potential growth-inducing impacts on the surrounding community. A project is typically considered growth-inducing if it would foster economic or population growth or the construction of additional housing; if it would remove obstacles to population growth or tax community services to the extent that the construction of new facilities would be necessary; or if it would encourage or facilitate other activities that cause significant environmental effects.¹ Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped.

The proposed project consists of the demolition of the existing warehouse building on the project site and the construction of an approximately 77,525-square-foot office/research and development (R&D) building. Development of the proposed project would not result in direct population growth within the City of Belmont (City), as it would not include residential units. However, the proposed project would introduce 310 new employees to the project site, and therefore could induce indirect population growth resulting from employees moving to the City solely for purposes of employment. As described in the Initial Study prepared for the proposed project (provided in Appendix B of this EIR), based on existing employment trends in the City, this growth could potentially result in the need for up to 30 new residential units (assuming new employees live in separate households and do not currently live in Belmont). This is a conservative estimate. The projected housing units expected to be constructed in Belmont in the near term (approximately 250 dwelling units at the 1325 Old County Road project, 177 units at the 815 Old County Road project, and 103 units at the Harbor Boulevard project, among others) would more than satisfy the potential demand for housing associated with the proposed project. Therefore, the proposed project would not induce substantial population growth in the City, and new residents could be housed in either existing dwelling units or those that are currently under or planned for construction.

Additionally, the proposed project would consist of redevelopment of an existing urbanized site and would not require the extension of utilities or roads into undeveloped areas or directly or indirectly lead to the development of greenfield sites. Due to the location of the project site and the presence of existing uses on and in the vicinity of the site, construction of the proposed project would not induce unplanned growth in the area. Therefore, the growth that would occur as a result of the proposed project would not be substantial or adverse.

¹ CEQA Guidelines. 2021. Section 15126.2(d).

6.2 SIGNIFICANT IRREVERSIBLE CHANGES

An EIR must identify any significant irreversible environmental changes that could result from implementation of a proposed project. These may include current or future uses of non-renewable resources, and secondary growth-inducing impacts that commit future generations to similar uses. CEQA suggests that irretrievable commitments of resources should be evaluated to assure that such current consumption is justified. Each of these three categories is further detailed below.

6.2.1 Changes in Land Use Which Commit Future Generations

The proposed project would allow for the redevelopment of an approximately 3.24-acre vacant and underutilized site located in an urbanized area of Belmont. The project site and immediate area are surrounded by a mix of office, public/institutional, and residential development, and the site is designated Office Commercial, which is intended for professional office, executive office, and other office uses. Because the project would occur on an infill site in which a variety of land uses may be considered under the City's General Plan and Municipal Code, and because in the future, the site could be rezoned, in which case at the end of the useful life of the project, the use could change, it would not commit future generations to a significant change in land use.

6.2.2 Irreversible Damage from Environmental Accidents

No significant environmental damage, such as accidental spills or explosion of a hazardous material, is anticipated with implementation of the proposed project. Compliance with federal, State, and local regulations, as outlined in Section 3.9, Hazards and Hazardous Materials, of the Initial Study (Appendix B of this EIR), would ensure that this potential impact would be reduced to a less-than-significant level. As such, no irreversible changes – such as those that might result from construction of a large-scale mining project, a hydroelectric dam project, or other industrial project – would result from development of the proposed project.

6.2.3 Consumption of Nonrenewable Resources

Consumption of nonrenewable resources includes increased energy consumption, conversion of agricultural lands, and lost access to mining reserves. As discussed in the Initial Study (Appendix B), the State Department of Conservation designates the site as "Urban and Built-Up Land," and the site is located in an urbanized area of Belmont. Therefore, no existing agricultural lands would be converted to non-agricultural uses. In addition, the project site does not contain known mineral resources and does not serve as a mining reserve; thus, development of the proposed project would not result in the loss of access to mining reserves. Please refer to Sections 3.2 and 3.12 of the Initial Study included in Appendix B for a discussion of impacts related to agricultural and mining resources, respectively.

Construction of the proposed project would require the use of energy, including energy produced from non-renewable resources. Energy consumption would also occur during the operational period of the proposed project. As discussed in Section 3.6, Energy, of the Initial Study (Appendix B), the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. Additionally, the proposed project would not require the

construction of major new lines to deliver energy or natural gas as these services are already provided in the area. Therefore, the proposed project would not result in a significant impact associated with the consumption of nonrenewable resources.

6.3 EFFECTS FOUND NOT TO BE SIGNIFICANT

The environmental topics analyzed in Chapter 4.0, Setting, Impacts, and Mitigation Measures, represent those topics which generated the greatest potential controversy and expectation of adverse impacts associated with development of the proposed project. As discussed in more detail in the Initial Study (Appendix B), the following topics are not addressed in this EIR because impacts related to these topics either would not occur or would be less than significant with implementation of mitigation measures. A summary of the conclusions provided in the Initial Study analysis for each of the topics scoped out of the EIR is provided below.

6.3.1 Aesthetics

The proposed project would not be visible from any publicly accessible vantage points with an expansive or significant view of a landscape feature and therefore would not obscure or substantially affect any scenic vistas in the vicinity of the project site. The proposed project would not be visible to vehicles traveling along Interstate 280 (I-280), which is the closest scenic highway to the project site.

There are no specific design standards for Planned Development (PD) districts. The Planning Commission would consider the request for rezoning to the PD district, including the increase in building heights on the site, when considering project approval. The proposed project would also be required to undergo design review, which would ensure that the proposed project is attractively designed and that potential aesthetic elements are considered and consistent with City policies. Exterior lighting on the project site would be required to use design features and shielding methods to cast outdoor light downward. Emergency lights associated with fire service vehicles and engines responding to emergency calls during the evening hours would be intermittent and temporary; further, given that calls for service from this station would occur approximately only three times per day, the increase in light and glare emitted from these vehicles is expected to be negligible.

6.3.2 Agricultural and Forestry Resources

The project site and vicinity are located within an urban area in Belmont. The site is currently zoned as E2.2 on the City's Zoning Map and is classified as "Urban and Built-Up Land" by the State Department of Conservation.² The project site is not used for agricultural production nor does it support forestry resources. Therefore, there would be no impact to agricultural and forestry resources.

6.3.3 Cultural Resources (Archaeological Resources and Human Remains)

As described in the Initial Study, records search results indicate that no previous cultural resources studies have included the project site; a survey and one previous cultural resources study have been

² California Department of Conservation (DOC). 2016. California Important Farmland Finder. Website: <https://maps.conservation.ca.gov/dlrp/ciff/> (accessed July 2021).

conducted within a 0.25-mile radius. As a result of previous cultural resources studies, no cultural resources have been recorded within the project site or a 0.25-mile radius. No significant cultural materials, prehistoric or historic, were noted during surface reconnaissance of the project site.³ In addition, supplemental research conducted by LSA determined that the project site appears to have minimal sensitivity for buried archaeological deposits.⁴ Although no archaeological deposits are recorded at the project site, pre-contact archaeological deposits have been unearthed in San Mateo County during construction activities. Implementation of Mitigation Measure CUL-1, detailed in the Initial Study, which is consistent with Policies 5.12-1 and 5.12-2 of the Conservation Element of the City's General Plan, would reduce potential impacts to archaeological historical resources to a less-than-significant level. There are no human remains or informal cemeteries known to be located at the project site. In the event that human remains are identified during project construction, these remains would be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, as appropriate.

6.3.4 Energy

As described in the Initial Study, energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources.

Energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. However, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources, and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the California Energy Commission's (CEC) 2020 Integrated Energy Policy Report.⁵ Thus, the project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and not result in any irreversible or irretrievable commitments of energy.

6.3.5 Geology and Soils

The project site is not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone or an active or potentially active fault. Adherence to the requirements and guidelines of the 2019 California Building Code (CBC) would ensure that potential impacts related to seismic ground shaking would be less than significant. The project site is not located within a liquefaction hazard zone. The project site could be subject to landslides on steep portions of the site. Compliance with the Construction General Permit and implementation of a Stormwater Pollution Prevention Plan (SWPPP) would ensure that the project would result in a less-than-significant impact related to landslides, erosion, or loss of top soil during construction of the project. During operation of the proposed project, the project site would be covered with new buildings, pavement surfaces, and

³ Archaeological Resource Management. 2021b. *Historic Evaluation of the Structure at 2 Davis Drive*. June 8.

⁴ LSA Associates, Inc, 2021. *Supplemental Cultural Resources Background Research for the 2 Davis Drive Project, Belmont, San Mateo County, California*. October 20.

⁵ California Energy Commission (CEC). 2020. *2020 Integrated Energy Policy Report*. Docket No. 20-IEPR-01.

landscaping, which would minimize post-development erosion. Although no paleontological resources or unique geological features are known to exist within or near the already disturbed project site, according to the locality search through the University of California Museum of Paleontology (UCMP) at the University of California, Berkeley, there are 715 known localities that have produced 319 specimens within San Mateo County.⁶ Implementation of Mitigation Measure GEO-1, detailed in the Initial Study, which is consistent with Policies 5.12-1 and 5.12-2 of the Conservation Element of the City's General Plan, would ensure potential impacts to paleontological resources would be reduced to a less-than-significant level.

6.3.6 Hazards and Hazardous Materials

The proposed project would consist of an R&D and office building. The R&D use within the proposed building would consist of laboratory space that may include storage and use of hazardous materials (e.g., laboratory chemicals and wastes) on the project site. The routine transport, use, or disposal of these hazardous materials could pose a potential hazard to future employees working at the project site as they would be handling the hazardous materials. All future uses on the site would be subject to existing regulatory programs for hazardous materials. A Hazardous Materials Business Plan, in compliance with the Hazardous Materials Business Plan Program administered by San Mateo County Environmental Health Services (SMCEHS), must be submitted to SMCEHS within 30 days of handling or storing a hazardous material equal to or greater than the minimum reportable quantities: 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet (at standard temperature and pressure) for compressed gases. Therefore, compliance with existing regulations that govern the transportation of hazardous materials and the use and disposal of such materials would ensure that the proposed project would not result in spills or leaks that could create a significant hazard to the public or the environment during and after construction by ensuring that these materials are properly handled, and if spills or leaks occur, they are properly and promptly cleaned up and the materials disposed of at an appropriate waste-handling facility.

The Phase I Environmental Site Assessment (ESA) prepared for the project site indicated that there is the potential for asbestos-containing materials (ACMs) based on the age of the existing building. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until a project sponsor has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The Crystal Springs Uplands Middle School and Ralston Middle School are located immediately to the south and west of the project site, respectively. However, as noted above, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. The project site is not listed as a hazardous materials release site pursuant to Government Code Section 65962.5. The project site is not located within an airport land use plan or within 2 miles of a public or private airport. The proposed project would include modifications to Ralston Avenue; however, these modifications would consist of a new right-turn lane at the intersection with Davis Drive to improve access and traffic flows. As discussed in Section 4.4, Transportation, of this EIR, the proposed project would result in deficiencies at multiple intersections along Ralston Avenue, which is the primary evacuation route for the surrounding area.

⁶ University of California Museum of Paleontology (UCMP). n.d. *Databases*. Website: <https://ucmp.berkeley.edu/collections/databases/> (accessed July 2021).

However, with implementation of the recommended improvements discussed in Section 4.4.3.1, the majority of which are identified in the Ralston Corridor Study, intersection operations along Ralston Avenue would function at pre-project conditions or better. Therefore, the proposed project would not result in new impacts related to emergency access or emergency evacuation plans. The project site and adjacent areas are located within a Very High Fire Hazard Severity Zone as mapped by the California Department of Forestry and Fire Protection (CALFIRE).⁷ However, the proposed project would be required to be constructed in accordance with the California Building Code (CBC). In particular, compliance with Section 7A of the CBC, which includes requirements for materials and construction methods for new building located within Fire Hazard Severity Zones or Wildland-Urban Interface Fire Areas, would reduce potential impacts related to wildland fires to a less-than-significant level.

6.3.7 Hydrology and Water Quality

Compliance with the requirements of the Construction General Permit, the Municipal Regional Permit (MRP), and the local and National Pollutant Discharge Elimination System (NPDES) regulatory requirements would ensure that water quality impacts due to discharge of construction-related stormwater runoff, dewatering effluent, and water quality during operation of the project would be less than significant. Groundwater on site would not be used during the operation phase of the project. Compliance with the City's Stormwater Management Program requirements, which require no net increase in the rate or amount of stormwater runoff, would ensure that the potential impacts related to on-site and off-site flooding and exceedance of the local stormwater system drainage capacity as a result of changes in drainage patterns would be less than significant. The project site is not located within a special flood zone. Seiches are not considered a hazard in the San Francisco Bay based on the natural oscillations of the Bay. Based on a map prepared by the California Geological Survey (CGS), the project site is not designated as a tsunami hazard area. The proposed project would be required to comply with the City's existing stormwater regulations, and would include implementation of site design measures, source control measures, and San Mateo Countywide Water Pollution Prevention Program construction best management practices (BMPs). In addition, the proposed project would connect to the Mid-Peninsula Water District water system and would not use groundwater at the site.

6.3.8 Mineral Resources

The project site is located within an urban area on a developed site. Additionally, the CGS does not identify known mineral resources or mineral recovery sites within or adjacent to the project site. Therefore, the proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State or the loss of availability of a locally-important mineral resource recovery site.

⁷ California Department of Forestry and Fire Protection (CAL FIRE). 2021. Fire Hazard Severity Zones Maps. Website: <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/> (accessed August 2021).

6.3.9 Population and Housing

The proposed project does not include housing, and therefore would not directly induce population growth on the project site. The proposed project could potentially increase demand for housing in Belmont by 30 units. However, this determination is likely an overestimate, as new jobs created would reasonably be expected to attract existing City residents due to lifestyle advantages and shortened commutes. Additionally, employees would likely commute from various communities throughout the Bay Area due to the proximity of I-280. The project site does not contain any housing, and therefore would not displace any existing people or housing. Population and housing impacts would therefore be less than significant.

6.3.10 Public Services

The proposed project would result in an increase in use and related daytime population of the project site, incrementally increasing the demand for emergency fire service, emergency medical services, and police services compared to the existing condition. However, the San Mateo Consolidated Fire Department and Belmont Police Department would continue to provide services to the project site and would not require new or expanded facilities as the proposed project would include the expansion of an existing use on a previously developed site and would not result in a substantial population increase. The proposed project does not include any residential uses, and would not directly affect student population. A fraction of employees may move to Belmont solely for employment, but this growth would only result in an incremental increase in student population, and may be spread amongst the whole school district, depending upon place of residence. Development of the project is unlikely to increase the demand for other public services, including parks, libraries, community centers, and public health care facilities, because no direct population growth would occur. Relocation of the fire station to the project site would ensure that these services continue to be provided and are housed in a safe and structurally updated facility. In addition, the proposed project includes on-site open space and a private roof deck that would be utilized by employees. Therefore, the proposed project would not result in an adverse effect on public services and would not require the construction of new facilities and these impacts would be less than significant.

6.3.11 Recreation

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

6.3.12 Tribal Cultural Resources

The City sent letters describing the proposed project and maps depicting the project site to Native American tribes that the Native American Heritage Commission identified as traditionally and culturally affiliated with the project area. To date, no California Native American tribe has formally requested consultation with the City, consistent with the requirements of Public Resources Code

21080.3.1. As such, formal City-tribal government consultations for the proposed project were not initiated. The project would have no impact on known tribal cultural resources.

6.3.13 Wildfire

The project site is not located within a State Responsibility Area (SRA) for fire service. However, the project site and adjacent areas are located within a Very High Fire Hazard Severity Zone as mapped by CALFIRE.⁸ The proposed project would require a temporary closure of Ralston Avenue for the construction of a right-turn lane at the Davis Drive intersection. Traffic control requirements imposed by the City for the permitting of temporary closure of street areas, such as detour signs re-directing vehicular traffic to other roadways, would ensure that appropriate emergency access is maintained to the project site and surrounding areas at all times during construction activities. Once completed, the additional right-turn lane would improve emergency access to and within the vicinity of the site. As discussed above under Section 6.3.6, with implementation of the recommended improvements discussed in Section 4.4, Transportation of this EIR, intersection operations along Ralston Avenue would function at pre-project conditions or better. Therefore, the proposed project would not result in new impacts related to emergency access or emergency evacuation plans.

As discussed above, the proposed project would be required to comply with Section 7A of the CBC, which includes requirements for materials and construction methods for new building located within Fire Hazard Severity Zones or Wildland-Urban Interface Fire Areas. Compliance with Section 7A of the CBC would ensure that wildfire risks are not exacerbated or increased compared to existing conditions. Therefore, the public would not be exposed to new wildfire risks that could result in pollutant concentrations, and

would not expose people or structures to significant risks associated with downslope or downstream flooding or landslides as a result of increased fire hazards or post-fire conditions. Construction and operation of the proposed project would not require the installation or operation/maintenance of infrastructure within undeveloped areas that may exacerbate wildfire risks.

6.4 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS

Even with the implementation of the mitigation measures recommended in this EIR, the proposed project would result in significant and unavoidable impacts related to the demolition of the existing building on the project site as it qualifies as a historical resource under CEQA. Refer to Section 4.3, Cultural Resources, for additional discussion. The proposed project would also result in significant and unavoidable impacts related to VMT, as it would exceed the applicable threshold. Refer to Section 4.4, Transportation, and Section 4.6, Greenhouse Gas Emissions, for additional discussion.

⁸ California Department of Forestry and Fire Protection (CAL FIRE). 2021. Fire Hazard Severity Zones Maps. Website: <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/> (accessed August 2021).

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