FINAL ENVIRONMENTAL IMPACT REPORT FOR THE BAYHILL SPECIFIC PLAN INCLUDING THE PHASE I DEVELOPMENT

SCH# 2017112045

PREPARED FOR:

City of San Bruno
567 El Camino Real
San Bruno, CA 94066
Contact: Matt Neuebaumer
650-616-7042

PREPARED BY:

ICF
201 Mission Street, Suite 1500
San Francisco, CA 94105
Contact: Heidi Mekkelson
415-677-7116

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ICF

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Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACMs	asbestos-containing materials
ADT	average daily traffic
AIA	Airport Influence Area
ALUCP	Airport Land Use Compatibility Plan
ALUCP	Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport
ALUCP	San Francisco International Airport
APN	Assessor's Parcel Number
AQAP	Air quality attainment plans
AREAPOLY	area source
ASES	After School Education & Safety
BAAQMD	Bay Area Air Quality Management District
Basin Plan	San Francisco Bay Basin (Region 2 Water Quality Control Plan)
BAT	best available technology
BAWSCA	Bay Area Water Supply & Conservation Agency
Bay	San Francisco Bay
Bay Area	San Francisco Bay Area
BMPs	best management practices
BNC	Bayhill Neighborhood Commercial
BRO	Bayhill Regional Office
BTU	British thermal unit
C/CAG	City/County Association of Governments
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAAQS	California Ambient Air Quality Standards
CAFÉ	Corporate Average Fuel Economy Standards
CalEEMod	California Emissions Estimator Model
CALFIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBIA vs. BAAQMD	California Building Industry Association vs. Bay Area Air Quality Management District
CCAA	California Clean Air Act
CCE	community choice energy
CCR	California Code of Regulations
CEC	California Energy Commission

CEQA	California Environmental Quality Act
CEQA Guidelines	California Environmental Quality Act Air Quality Guidelines
CFR	Code of Federal Regulations
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of San Bruno
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
C-O	Community Office
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Cortese	Hazardous Waste and Substance Sites
CPTED	Crime Prevention Through Environmental Design
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Places
CWA	Clean Water Act
dB	decibel
dBA	A-Weighted Decibel
dBC	C-Weighted Decibel
DIF	development impact fee
DPM	diesel particulate matter
Draft EIR	Draft Environmental Impact Report
EIR	Draft Environmental Impact Report
EIR	Environmental Impact Report
EMTs	Emergency Medical Technicians
EO	Executive Order
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRMs	Flood Insurance Rate Maps
g/L	grams/liter
General Construction Permit	General Permit for Construction Activities
General Plan	San Bruno General Plan 2025
GHG	greenhouse gas
GWMP	South Westside Basin Groundwater Management Plan

GWP	global warming potential
HFCs	Hydroflourocarbons
HI	hazard index
HMPs	Hydromodification Management Plans
HOV	high-occupancy vehicle
HRA	Health Risk Assessment
HWQE	Hydrology and Water Quality Evaluation for the Bayhill Specific Plan and the YouTube Phase I Office Development
Hz	Hertz
I-	Interstate
I-280	Interstate 280
I-380	Interstate 380
IP	Ingress Protection
IPCC	Intergovernmental Panel on Climate Change
ISG	Individual Supply Guarantee
IWMA	Integrated Waste Management Act
JPA	Joint Powers Authority
kBTU	thousand BTU
kV	kilovolt
kWh	kilowatt hour
LBP	lead-based paint
Ldn	Day-Night Level
Ldn	day-night sound level
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent sound level
LID	low impact development
LINEAREA	line/area source
Lmax	Maximum Sound Level
L_{min}	Minimum Sound Level
L_{min} and L_{max}	minimum and maximum sound levels
LOS	level of service
Lxx	Percentile-Exceeded Sound Level
mg/m^3	milligrams per cubic meter
MGD	million gallon per day
mph	miles per hour
MPO	Metropolitan Planning Organization
MRP	Municipal Regional Stormwater Permit
MS4	NPDES General Permit for Municipal Separate Storm Sewer Systems
MTC	Metropolitan Transportation Commission
N_2O	nitrous oxide

NAAQS	National Ambient Air Quality Standards
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCWD	North Coast County Water District
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
NOI	notice of intent
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OEHHA	California Office of Environmental Health Hazard Assessment
OPR	Governor’s Office of Planning and Research
OPR	Office of Planning and Research
PCE	Peninsula Clean Energy
P-D	Planned Development
PDA	Priority Development Area
Peak Velocity or PPV	Peak Particle Velocity
PFCs	perfluorocarbons
Phase I Development	Phase I of YouTube’s 15-year expansion plan
Phase I Site	8.12-acre site containing the Phase I Development
Phase I Site	Phase I Development Site
Phase I Site	YouTube’s Phase I Development
PM	particulate matter
PM_{10}	particulate matter 10 microns or smaller in diameter
$PM_{2.5}$	fine particulate matter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppm	parts per million
PPV	peak particle velocity
Project	Bayhill Specific Plan and Phase I Development
Project	Specific Plan and Phase I Development
Project Site	Bayhill Planning Area
Project Site	Planning Area
PSAs	Police Service Areas
RCNM	roadway construction noise model
REC2	Noncontact Water Recreation
Regional Water Board	Regional Water Quality Control Board
RHNA	Regional Housing Needs Allocation

ROG	reactive organic gas
ROG	reactive organic gases
ROW	rights-of-way
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Community Strategy
RTPs	Regional Transportation Plans
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
SamTrans	San Mateo County Transit District
SB	Senate Bill
SBPSD	San Bruno Park School District
SBPSD	San Bruno Park School District
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SF Bay MS4 Permit	San Francisco Bay Region Municipal Regional Stormwater NPDES Permit No. CAS029718
SF6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SFO	San Francisco International Airport
SFPUC	San Francisco Public Utilities Commission
SIP	State Implementation Plan
SLF	Sacred Lands File
SMUHSD	San Mateo Union High School District
Specific Plan	Bayhill Specific Plan
SR	State Route
SR 82	State Route 82
SSIS	Sanitary Sewer Impact Study for Bayhill Specific Plan Area
State Highway 82	El Camino Real
State Water Board	State Water Resources Control Board
SWIS	Solid Waste Information System
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
TACs	Toxic Air Contaminants
TCMs	traffic control measures
TCP	San Bruno Transit Corridors Specific Plan
TDM	Transportation Demand Management
TMA	transportation management association
TMDLs	total maximum daily loads
TNM	traffic noise model
Transit Corridors Plan	Grand Boulevard Initiative Guiding Principles and the Transit Corridors Plan

USACE	U.S. Army Corps of Engineers
USFWS	U.S. Department of Fish and Wildlife Service
USGBC	United States Green Building Council's
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
WILD	Wildlife Habitat
WQCP	South San Francisco/San Bruno Water Quality Control Plant
WQCP	Water Quality Control Plant
WSA	Water Supply Assessment
WWTP	wastewater treatment plants
$\mu g/m^3$	micrograms per cubic meter

ES.1 Introduction

This ~~Draft~~ Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts of the proposed Bayhill Specific Plan in the City of San Bruno and the proposed first phase of development under the Specific Plan. This ~~Draft~~ EIR has been prepared in accordance with the provisions of CEQA and the CEQA Guidelines (Title 14 California Code of Regulations section 15000 et seq.). As required by Section 15123 of the CEQA Guidelines, this summary presents the following information, including the major findings of this ~~Draft~~ EIR:

- Overview, including the location, a brief description, and objectives.
- Areas of known controversy and issues to be resolved.
- Summary of environmental impacts and mitigation measures, including significant and unavoidable impacts.
- Alternatives, including alternatives considered but rejected, alternatives evaluated in this ~~Draft~~ EIR, and identification of the environmentally superior alternative.

ES.2 Project Location and Overview

The Project is comprised of the proposed Bayhill Specific Plan (Specific Plan), including Phase I of YouTube's 15-year expansion plan (Phase I Development). This EIR provides a program-level review of the Specific Plan and a project-level review of the Phase I Development. The Specific Plan is a proposed land use, transportation, and capital improvements plan that outlines a cohesive, long-term, community-driven vision for the Planning Area (Project Site). The Project Site, known locally as "Bayhill," is a 92.2-acre site in the City of San Bruno that includes the headquarters of YouTube as well as several other office and commercial/retail uses. The Project Site is bounded by Interstates 280 to the west and 380 to the north, the properties fronting El Camino Real to the east, and San Bruno Avenue West from Elm Avenue to Interstate 280 to the south. The Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses on the Project Site. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. The Specific Plan would also allow for circulation and access improvements, including the realignment of Grundy Lane, other public infrastructure improvements, and landscape/streetscape improvements.

The Phase I Development is a proposed development project within the Project Site. The Phase I Development is the first phase of YouTube's 15-year expansion plan and would be implemented under the Specific Plan. The 8.12-acre site containing the Phase I Development (Phase I Site) is located within the Project Site and is comprised of two separate parcels (APNs 020-015-020 and 020-011-230) separated by Grundy Lane and bordered by Cherry Avenue to the west, Interstate 380 to the north, Bayhill Drive to the south, and adjacent office properties to the east. The Phase I Development would construct two three-story office buildings totaling approximately 440,000 square feet. The Phase I Development would also construct two three-level subterranean parking garages (one under each new building) that would be connected through a below-grade tunnel extending underneath Grundy Lane.

ES.2.1 Project Objectives

The underlying purpose of the Project is to implement a Specific Plan that outlines a cohesive, long-term vision for future development on the Project Site, and ensures that development within the Project Site is integrated into an attractive setting that benefits the Project Site's property owners as well as the broader San Bruno community. Other objectives of the Project include the following:

- Accommodate additional development within the Project Site to take advantage of its proximity to existing mass transit/public transportation and strengthen its role as the city's premier employment hub.
- Enhance the quality of the Bayhill Office Park by replacing surface parking areas with architecturally distinctive buildings constructed of high-quality materials that will contribute to the revitalization of the office park.
- Provide a cohesive vision for future development within the Project Site, recognizing Bayhill's essential nature as a business park/employment center while allowing for residential development in appropriate locations, thereby helping to serve the city and region's housing needs.
- Integrate Bayhill with the greater San Bruno community. Ensure that development is an asset to the community and enhances the area's and the city's image and quality of life.
- Ensure that the neighborhood commercial uses at the Bayhill Shopping Center that serve office park employees and the surrounding neighborhoods are retained.
- Improve multimodal connectivity to and through the Project Site so that walking and biking are safe and enjoyable experiences, and connections to the nearby San Bruno Caltrain and BART stations are strengthened.
- Promote a vibrant and mixed use walkable district. Foster the creation of an enhanced pedestrian environment and attractive greenways along public streets for the use of city residents and office park employees.
- Promote optimal long-term development patterns and accommodate the expansion needs of existing businesses, while being adaptable to changing economic conditions and business needs.
- Provide adequate parking spaces to accommodate employee and business visitor parking demand thereby ensuring that project parking is accommodated on-site with no spill-over to adjacent neighborhoods.
- Enhance the public realm and promote quality design by incorporating amenities and promoting green building principles.
- Ensure a net positive fiscal impact for the city.
- Assure that new development mitigates its impacts and pays its fair share for infrastructure improvements needed to support the development.

- For the Phase I Development, create approximately 440,000 square feet of new office and accessory space, associated parking, and a multimodal transportation facility to meet YouTube's immediate business needs and allow for future growth.
- For the Phase I Development, design buildings to meet modern tenant needs for building floor plans and site configurations.
- For the Phase I Development, provide amenities that are commensurate with the Phase I Development's density.
- For the Phase I Development, ensure the safety and security of employees through secure access to and between the existing and proposed buildings and outdoor spaces.

ES.3 Areas of Known Controversy and Issues to be Resolved

Publication of the Notice of Preparation (NOP) for this EIR initiated a public comment and scoping period that began on November 17, 2017 and ended on December 22, 2017. A public scoping meeting was held on December 5, 2017 at the San Bruno Senior Center (1555 Crystal Springs Road, San Bruno, CA 94066). During the NOP review and comment period, a total of 5 letters and emails were submitted to the Community Development Department by interested parties. Environmental concerns specific to the Project or the scope and contents of the EIR were received regarding biology (restoring urban wildlife connections and the San Bruno Creek), transportation, and freeway noise. Other comments were related to project design and the project's location within the airport land use compatibility planning area for the environs of San Francisco International Airport and related building heights, land use, noise, and safety issues.

On July 26, 2019, the City distributed a Revised NOP to alert interested parties and to solicit public and agency input regarding: (1) changes to the boundaries of the Project Site, (2) the inclusion of additional improvements and items as part of the Phase I Development, and (3) revisions to the list of environmental effects to be evaluated in the EIR. Publication of the Revised NOP for this EIR initiated a second public comment period that began July 26, 2019 and ended August 27, 2019. During the Revised NOP review and comment period, a total of 4 letters and emails were submitted to the Community Development Department by interested parties. Environmental concerns specific to the Project or the scope and contents of the EIR were received regarding the transportation analysis; the noise analysis and the Project Site no longer being within the 65 decibel noise contour for airport noise; the project's location within the airport land use compatibility planning area for the environs of San Francisco International Airport and related building heights, land use, noise, and safety issues; and the project's location within the San Francisco Public Utility Commission's pipeline eastern easement. A letter was also received from the Native American Heritage Commission (NAHC) summarizing general tribal outreach requirements.

The Community Development Department has considered the comments made by the public in response to both the NOP and the Revised NOP in preparation of the draft EIR for the Project. Comments received during the scoping process are on file at the City of San Bruno Community Development Department (567 El Camino Real, San Bruno, CA 94066). The NOP and Revised NOP can be found in Appendix 1 of this EIR.

ES.4 Project Impacts and Mitigation Measures

ES.4.1 Impacts Summary

The impacts described in this EIR are for the potential full buildout of the development that would be permitted under the Specific Plan if fully implemented. As described in more detail in Chapter 2, *Project Description*, to account for the variability resulting from the housing and mixed-use overlay zones, each chapter of this EIR analyzes the buildout scenario (i.e., the Maximum Office Scenario or the Maximum Housing Scenario) which represents the "worst-case" scenario for the resource area being analyzed. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts.

In addition, during the scoping process for this ~~Draft~~ EIR, the City of San Bruno determined that implementation of the Project would not result in significant environmental impacts on Agriculture and Forestry Resources, Biological Resources, Cultural Resources and Tribal Cultural Resources, Geology/Soils, Hazards/Hazardous Materials, Mineral Resources, or Wildfire. A detailed analysis of these topics is therefore not included in this ~~Draft~~ EIR; refer to the *Impacts Requiring No Further Analysis* discussion beginning on page 3-4 in Chapter 3, *Environmental Impact Analysis*, of this EIR for further discussion.

Table ES-1, presented at the end of this summary, presents a summary of the significant impacts of the Project identified in the EIR and the proposed mitigation measures that reduce these impacts, including cumulative impacts that were found to be significant. Detailed discussions of the impacts, mitigation measures and proposed policies that would reduce impacts are in Chapter 3.

ES.4.2 Significant and Unavoidable Impacts

Significant and unavoidable impacts are those that cannot be reduced to a less-than-significant level with mitigation or for which no feasible mitigation is available. The Project would result in significant and unavoidable Project and cumulative impacts on air quality, and transportation, as shown below. The Phase I Development would not result in any significant and unavoidable impacts.

- **Impact AQ-2a: Increases in Criteria Pollutants.** The Project would generate criteria pollutant levels that would exceed the Bay Area Air Quality Management District's (BAAQMD) daily pollutant thresholds during construction and operation. While this impact could be mitigated through payment to offset programs, it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development.
- **Impact AQ-3a: Health Risks from Toxic Air Contaminants (TACs) and Criteria Pollutant Concentrations.** The Project could result in the exposure of sensitive receptors to substantial TAC and criteria pollutant concentrations during construction and operation.
- **Impact C-AQ-1a: Cumulatively Considerable Increases in Criteria Pollutants.** The Project's criteria pollutant emissions, in combination with past, present, and reasonably foreseeable future project emissions, could result in a cumulatively considerable net increase in criteria pollutants. While this impact could be mitigated through payment to offset programs, it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development.
- **Impact C-AQ-2a: Cumulative Health Risks from TACs and Criteria Pollutant Concentrations**. The Project's TAC and criteria pollutant emissions, in combination with past, present, and

reasonably foreseeable future project TAC and criteria pollutant emissions, could contribute to cumulative exposure health risks of sensitive receptors. The Project could also locate new receptors where they could be exposed to cumulative health risks due to cumulative TAC and criteria pollutant emissions.

- **Impact TRA-5a: Project-Generated Vehicle Miles Travel~~l~~ed (VMT).** The Project would be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT, even with implementation of a Transportation Demand Management Program.

ES.5 Alternatives to the Proposed Project

CEQA Guidelines Section 15126.6 requires an EIR to evaluate a reasonable range of alternatives to the project that would feasibly attain most of the project's basic objectives but that would avoid or substantially lessen any identified significant environmental impacts of the project, as well as the No Project Alternative.

ES.5.1 Project Alternatives

The following three alternatives to the Project are analyzed in this ~~Draft~~ Environmental Impact Report.

- **No Project Alternative**: Required by CEQA, the No Project Alternative assumes that the Specific Plan is not adopted, existing land uses remain unchanged and in their current physical state, and no new construction occurs within the Project Site. No new structures or subterranean parking garages would be built, and no demolition of existing uses would occur. Existing General Plan land use classifications and zoning districts would be maintained on the Project Site.
- **Residential Alternative:** The Residential Alternative considers a variation of the proposed Specific Plan that would allow for the development of up to 1,499 new residential dwelling units, 926 more dwelling units than the Project. To accommodate the increased residential density, the amount of net new office uses would be reduced to 1,773,636 square feet compared to 2,459,847 square feet under the Project (or 1,942,896 square feet under the Maximum Housing Scenario). The Residential Alternative was selected for evaluation based on its ability to provide a more balanced jobs/housing ratio and reduce VMT impacts.
- **Increased Height Alternative**: The Increased Height Alternative would allow housing, hotel, and office buildings on the Project Site to reach a height limit of 70 feet/five stories. The additional building height would allow for a greater density of residential and hotel uses compared to the Project, while the intensity of office development would be the same. Office buildings would contain the same total volume but could be taller with smaller bases, enabling more of the site area to be in open space. It is estimated that the Increased Height Alternative would provide approximately 6.5 acres of additional open space compared to the Project. This alternative could only be implemented if the voters approved a modification to Ordinance 1284 which currently limits heights on the Project Site to three stories. The San Bruno City Council requested an evaluation of the Increased Height Alternative; the alternative also has the potential to provide a more balanced jobs/housing ratio and reduce VMT impacts. This ~~Draft~~ EIR provides a quantitative evaluation of the Increased Height Alternative and could be used to provide CEQA clearance for such an alternative in the event that it is approved by voters and the City Council.

ES.5.2 Alternatives Rejected as Infeasible

The following alternatives were under consideration but were rejected on the basis of infeasibility and inability to meet the basic Project objectives.

- **Offsite Alternative**: Under the Offsite Alternative, the Specific Plan would be implemented at a different location, and no changes would occur to the Project Site. Depending on the location and its proximity to alternative transportation modes and sensitive receptors, implementing the Project at a different site could reduce VMT per service population, freeway queueing, and exposure of sensitive receptors to TACs. The Offsite Alternative was rejected as infeasible because YouTube currently occupied the Project Site and owns a majority (10 parcels) of the Project Site. It would be speculative to assume that YouTube would be able to identify and purchase contiguous parcels at another location that could accommodate YouTube's expansion plans. Furthermore, there are no other vacant or underutilized sites within the City that are large enough to accommodate the type and scale of buildout envisioned under the Specific Plan. The Offsite Alternative also would not meet the fundamental Project purpose to implement a Specific Plan that outlines a cohesive, long-term vision for future development on the Project Site, or the numerous Project objectives related to improving the Bayhill Office Park and enhancing its role as a major business park/employment center in the City.
- **Reduced Intensity Alternative**: Under the Reduced Intensity Alternative, the development intensity of the Project (e.g., square footage, parking, building height and massing) would be reduced by approximately 25 percent. The Reduced Intensity Alternative was rejected from further consideration because although it might reduce TAC emissions to some degree, it might actually increase VMT on a regional basis, would be inconsistent with regional growth policies, and would have no effect on the freeway queuing impact.
- **Reduced Parking Alternative**: Under the Reduced Parking Alternative, base parking standards would be reduced up to 30% below the reduced parking standards in the San Bruno Municipal Code to discourage drive-alone trips and encourage alternative modes of transportation, potentially reducing Project-generated VMT and potentially reducing or eliminating the Project's significant VMT and/or freeway queueing impacts. The Reduced Parking Alternative was rejected as infeasible due to its inability to reduce or avoid the significant impacts of the Project.
- **Reconfigured Office-Only Alternative**: The Reconfigured Office-Only Alternative would preclude the potential for new sensitive uses to be developed on the Project Site by eliminating the residential overlay zone and not allowing daycare uses as an allowable use under the Specific Plan. This alternative would also reconfigure new office uses and potential TAC sources (e.g., new stationary sources, vehicle trips, and construction activity) by concentrating new development toward the center of the Project Site, farther from nearby off-site sensitive receptors. This alternative was rejected from further consideration since there is no feasible setback that would allow for the proposed uses to be developed at a distance of 1,000 feet or more from off-site receptors without exceeding height limitations set by Ordinance 1284. Furthermore, this alternative would not meet the basic Project objective to provide a cohesive vision for future development within the Project Site, recognizing Bayhill's essential nature as a business park/employment center while allowing for residential development in appropriate locations, thereby helping to serve the city and region's housing needs.
- **Phase I-Only Alternative**: The Phase I-Only Alternative would develop the Phase I Development without any subsequent development. As discussed above, the Phase I Development would not

result in any significant and unavoidable impacts. Therefore, the Phase I-Only Alternative would avoid all of the significant impacts of the Project and would meet the Project objectives specific to the Phase I Development. However, the Phase I-Only Alternative would not meet the underlying purpose of the Project is to implement a Specific Plan that outlines a cohesive, long-term vision for future development on the Project Site. The Phase I-Only Alternative also would not meet many of the basic objectives of the Project; therefore, the Phase I-Only Alternative was rejected from further consideration.

ES.5.3 Environmentally Superior Alternative

The Residential Alternative is considered the environmentally superior alternative because it would avoid the Project's significant VMT impact, although it would result in a new significant and unavoidable cumulative impact with respect to freeway queueing.

Table ES-1. Summary of Impacts under the Project and Phase I Development

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Visual Resources			
Project			
Impact AES-1a: The Project would not conflict with plans, policies, or regulations governing scenic quality.	Less than Significant	None Required	--
Impact AES-2a: New sources of light and glare associated with the Project would not adversely affect daytime or nighttime views in the area.	Less than Significant	None Required	--
Phase I Development			
Impact AES-1b: The Phase I Development would not conflict with plans, policies, or regulations governing scenic quality.	Less than Significant	None Required	--
Impact AES-2b: New sources of light and glare associated with the Phase I Development would not adversely affect daytime or nighttime views in the area.	Less than Significant	None Required	--
Air Quality			
Project			
Impact AQ-1a: The Project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact AQ-2a: The Project could result in a cumulatively considerable net increase of a criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard during construction and operation.	Significant	MM-AQ-1: Require at least Tier 4 Final Engines on Construction Equipment. MM-AQ-2: Require use of diesel trucks with 2010-compliant model year engines. MM-AQ-3: Require construction fleet to use renewable diesel. MM-AQ-4: Require low-VOC coatings during construction. MM-AQ-5: Require fugitive dust best management practices. MM-AQ-6: Purchase of mitigation credits for construction emissions exceeding BAAQMD's daily pollutant thresholds. MM-AQ-7: Purchase of mitigation credits for operation emissions exceeding. BAAQMD's daily pollutant thresholds. MM-TRA-1: Prepare and implement TDM program.	**Significant and Unavoidable**
Impact AQ-3a: The Project could result in the exposure of sensitive receptors to substantial TAC concentrations during construction and operation, and could result in the exposure of sensitive receptors to substantial criteria pollutant concentrations during construction and operation.	TAC concentrations: Significant	MM-AQ-8: Require Future projects located within 1,000 feet of sensitive receptors to perform a health risk assessment.	TAC concentrations: **Significant and Unavoidable**
	Criteria Pollutant Concentrations: Significant	MM-AQ-1 MM-AQ-2 MM-AQ-3 MM-AQ-4 MM-AQ-5 MM-AQ-6 MM-AQ-7 MM-TRA-1	Criteria Pollutant Concentrations: **Significant and Unavoidable**

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact AQ-4a: The Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less than Significant	None Required	--
Impact C-AQ-1a:[a] The Project, in combination with past, present, and reasonably foreseeable future projects, could result in a cumulatively considerable net increase in criteria pollutants after mitigation for which the Project region is a nonattainment area for an applicable federal or State ambient air quality standard.	Significant	MM-AQ-1 MM-AQ-2 MM-AQ-3 MM-AQ-4 MM-AQ-5 MM-AQ-6 MM-AQ-7 MM-TRA-1	**Significant and Unavoidable**
Impact C-AQ-2a:[a] The Project's TAC emissions, in combination with past, present, and reasonably foreseeable future project TAC emissions, could contribute to cumulative exposure health risks of sensitive receptors. The Project could also locate new receptors where they could be exposed to cumulative health risks due to cumulative TAC emissions.	Significant	MM-AQ-1 MM-AQ-2 MM-AQ-3 MM-AQ-4 MM-AQ-5 MM-AQ-6 MM-AQ-7 MM-AQ-8	**Significant and Unavoidable**
Phase I Development			
Impact AQ-1b: The Phase I Development would not conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	None Required	--
Impact AQ-2b: The Phase I Development would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard during construction and operation.	Significant	MM-AQ-1 MM-AQ-5 MM-TRA-2: Monitor and evaluate existing TDM program.	Less than Significant
Impact AQ-3b: The Phase I Development would not result in the exposure of sensitive receptors to substantial TAC concentrations or criteria pollutant concentrations during construction and operation.	Significant	MM-AQ-1 MM-AQ-5 MM-TRA-2	Less than Significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact AQ-4b: The Phase I Development would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less than Significant	None Required	--
Energy			
Project			
Impact EN-1a: The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.	Construction: Significant	MM-GHG-1: Require implementation of BAAQMD-recommended Construction Best Management Practices. MM-AQ-3	Construction: Less than Significant
	Operation: Less than Significant	None Required	--
Impact EN-2a: The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than Significant	None Required	--
Phase I Development			
Impact EN-1b: The Phase I Development would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.	Construction: Significant	MM-GHG-1	Construction: Less than Significant --
	Operation: Less than Significant	None Required	--
Impact EN-2b: The Phase I Development would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than Significant	None Required	--
Greenhouse Gases			
Project			
Impact GHG-1a: The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during construction and operation.	Significant	MM-GHG-1 MM-TRA-1 MM-GHG-2: Implement operational GHG reduction measures or their equivalent. MM-GHG-3: Purchase of GHG mitigation credits.	Less than Significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact GHG-2a: The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases during construction and operation.	Significant	MM-GHG-1 MM-TRA-1 MM-GHG-2 MM-GHG-3	Less than Significant
Phase I Development			
Impact GHG-1b: The Phase I Development would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during construction and operation.	Significant	MM-GHG-1 MM-TRA-2	Less than Significant
Impact GHG-2b: The Phase I Development would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases during construction and operation.	Significant	MM-GHG-1 MM-TRA-2	Less than Significant
Hydrology and Water Quality			
Project			
Impact HWQ-1a: The Project would not result in the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Significant	MM-HWQ-1: Require groundwater monitoring well installation and sampling prior to dewatering activity. MM-HWQ-2: Prepare drainage report and implement stormwater control measures to avoid increases in peak flows.	Less than Significant
Impact HWQ-2a: The Project would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impeded sustainable groundwater management of the basin.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact HWQ-3a: The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or of-site; substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite; create or contribute water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.	Significant	MM-HWQ-2	Less than Significant
Impact HWQ-4a: The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant	None Required	--
Impact C-HWQ-1:[a] The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable violations of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Significant	MM-HWQ-1 MM-HWQ-2	Less than Cumulatively Considerable
Impact C-HWQ-3:[a] The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not substantially alter the existing drainage pattern of the area, in a manner which would result in erosion or siltation; increase the rate or amount of surface runoff that would result in flooding; exceed the capacity of existing or planned stormwater drainage systems.	Significant	MM-HWQ-2	Less than Cumulatively Considerable

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Phase I Development			
Impact HWQ-1b: The Phase I Development would not result in the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Significant	MM-HWQ-2	Less than Significant
Impact HWQ-2b: The Phase I Development would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impeded sustainable groundwater management of the basin.	Less than Significant	None Required	--
Impact HWQ-3b: The Phase I Development would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or of-site; substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite; create or contribute water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.	Significant	MM-HWQ-2	Less than Significant
Impact HWQ-4b: The Phase I Development would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Land Use and Planning			
Project			
Impact LU-1a: The Project would not physically divide an established community.	Less than Significant	None Required	--
Impact LU-2a: The Project would not result in an environmental impact due to conflict with any land use plan, policy, or regulation for the purpose of avoiding or mitigating an environmental effect.	Significant	EIR Mitigation Measures	Less than Significant
Phase I Development			
Impact LU-1b: The Phase I Development would not physically divide an established community.	Less than Significant	None Required	--
Impact LU-2b: The Phase I Development would not result in an environmental impact due to conflict with any land use plan, policy, or regulation for the purpose of avoiding or mitigating an environmental effect.	Significant	EIR Mitigation Measures required for Phase I Development	Less than Significant
Noise			
Project			
Impact NOI-1a: The Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance, or applicable standards of other agencies, with implementation of mitigation measures.	Significant	MM-NOI-1: Development of noise control plan for nighttime construction. MM-NOI-2: Siting of noise-generating uses. MM-NOI-3: The operation of sound amplifying equipment.	Less than Significant
Impact NOI-2a: The Project would not result in the generation of excessive ground-borne vibration or ground-borne noise levels.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact NOI-3a: For a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the Project would not expose people residing or working in the project area to excessive noise levels.	Less than Significant	None Required	--
Impact C-NOI-1a:[a] The Project, in combination with past, present, and reasonably foreseeable future projects, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	Significant	MM-NOI-1 MM-NOI-2 MM-NOI-3	Less than Cumulatively Considerable
Phase I Development			
Impact NOI-1b: The Phase I Development would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance, or applicable standards of other agencies, with implementation of mitigation measures.	Significant	MM-NOI-1 MM-NOI-3	Less than Significant
Impact NOI-2b: The Phase I Development would not result in the generation of excessive ground-borne vibration or ground-borne noise levels.	Less than Significant	None Required	--
Impact NOI-3b: For a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the Phase I Development would not expose people residing or working in the project area to excessive noise levels.	No Impact	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact C-NOI-1b:[a] The Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	Significant	MM-NOI-1 MM-NOI-4: Coordination of Phase I Development Haul Truck Routes with 901 Cherry Avenue.	Less than Cumulatively Considerable
Population and Housing			
Project			
PH-1a: The Project would not result in substantial unplanned population growth, either directly or indirectly.	Less than Significant	None Required	--
Phase I Development			
PH-1b: The Phase I Development would not result in substantial unplanned population growth, either directly or indirectly.	Less than Significant	None Required	--
Public Services and Recreation			
Project			
Impact PS-1a (Fire): The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact PS-2a (Police): The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection.	Less than Significant	None Required	--
Impact PS-3a (Schools): The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.	Less than Significant	None Required	--
Impact PS-4a (Parks): The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks.	Less than Significant	None Required	--
Impact PS-5a (Libraries): The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact REC-1a: The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less than Significant	None Required	--
Impact REC-2a: The Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	No Impact	None Required	--
Phase I Development			
Impact PS-1b (Fire): The Phase I Development would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.	Less than Significant	None Required	--
Impact PS-2b (Police): The Phase I Development would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection.	Less than Significant	None Required	--
Impact PS-3b (Schools): The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.	No Impact	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact PS-4b (Parks): The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks.	Less than Significant	None Required	--
Impact PS-5b (Libraries): The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries.	Less than Significant	None Required	--
Impact REC-1b: The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less than Significant	None Required	--
Impact REC-2b: The Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	No Impact.	None Required	--
Transportation			
Project			
Impact TRA-1a: The Project would not result in substantial temporary impacts on the vehicular, transit, bicycle, and pedestrian networks from temporary road closures, relocations and modifications as a result of construction.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact TRA-2a: Construction of the Project would not generate a substantial increase in transit riders that could not be adequately served by existing transit services.	Less than Significant	None Required	--
Impact TRA-3a: The Project would not result in substantially increased hazards because of a geometric design feature or incompatible uses as a result of temporary road closures, relocations, and modifications as a result of construction.	Less than Significant	None Required	--
Impact TRA-4a: The construction of the Project would not cause inadequate emergency access.	Less than Significant	None Required	--
Impact TRA-5a: The Project would be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT.	Significant	MM-TRA-1: Prepare and implement TDM program.	**Significant and Unavoidable**
Impact TRA-6a: The Project would not conflict with a program, plan, ordinance, or policy addressing the roadway circulation system.	Less than Significant	None Required	--
Impact TRA-7a: The Project would not conflict with a program, plan, ordinance, or policy addressing the transit circulation system.	Less than Significant	None Required	--
Impact TRA-8a: The Project would not conflict with a program, plan, ordinance, or policy addressing the bicycle circulation system.	Less than Significant	None Required	--
Impact TRA-9a: The Project would not conflict with a program, plan, ordinance, or policy addressing the pedestrian circulation system.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact TRA-10a: The Project would provide adequate bicycle facilities to connect to the area circulation network.	Less than Significant	None Required	--
Impact TRA-11a: The Project would provide adequate pedestrian facilities to connect to the area circulation network.	Less than Significant	None Required	--
Impact TRA-12a: The Project would not generate a substantial increase in transit riders that could not be adequately served by existing transit services.	Less than Significant	None Required	--
Impact TRA-13a: The Project would not substantially increase hazards because of a geometric design feature or incompatible uses.	Less than Significant	None Required	--
Impact TRA-14a: The Project would not cause inadequate emergency access.	Less than Significant	None Required	--
Impact C-TRA-1:[a] The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would be consistent with State CEQA Guidelines Section 15064.3, subdivision (b).	Significant	MM-TRA-1: Prepare and implement TDM program.	Less than Cumulatively Considerable
Impact C-TRA-9:[a] The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would substantially increase hazards because of a geometric design feature (e.g., sharp curves, dangerous intersections) or incompatible uses (e.g., farm equipment).	Significant	MM-TRA-1: Prepare and implement TDM program.	Less than Cumulatively Considerable
Phase I Development			
Impact TRA-1b: The Phase I Development would not result in substantial temporary impacts on the vehicular, transit, bicycle, and pedestrian networks from temporary road closures, relocations and modifications as a result of construction.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact TRA-2b: Construction of the Phase I Development would not generate a substantial increase in transit riders that could not be adequately served by existing transit services.	Less than Significant	None Required	--
Impact TRA-3b: The Phase I Development would not result in substantially increased hazards because of a geometric design feature or incompatible uses as a result of temporary road closures, relocations, and modifications as a result of construction.	Less than Significant	None Required	--
Impact TRA-4b: The construction of the Phase I Development would not cause inadequate emergency access.	Less than Significant	None Required	--
Impact TRA-5b: The Phase I Development would be consistent with State CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT.	Significant	MM-TRA-2: Monitor and evaluate existing TDM program.	Less than Significant
Impact TRA-6b: The Phase I Development would not conflict with a program, plan, ordinance, or policy addressing the roadway circulation system.	Less than Significant	None Required	--
Impact TRA-7b: The Phase I Development would not conflict with a program, plan, ordinance, or policy addressing the transit circulation system.	Less than Significant	None Required	--
Impact TRA-8b: The Phase I Development would not conflict with a program, plan, ordinance, or policy addressing the bicycle circulation system.	Less than Significant	None Required	--
Impact TRA-9b: The Phase I Development would not conflict with a program, plan, ordinance, or policy addressing the pedestrian circulation system.	Less than Significant	None Required	--
Impact TRA-10b: The Phase I Development would provide adequate bicycle facilities to connect to the area circulation network.	Less than Significant	None Required	--
Impact TRA-11b: The Phase I Development would provide adequate pedestrian facilities to connect to the area circulation network.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact TRA-12b: The Phase I Development would not generate a substantial increase in transit riders that could not be adequately served by existing transit services.	Less than Significant	None Required	--
Impact TRA-13b: The Phase I Development would not substantially increase hazards because of a geometric design feature or incompatible uses.	Less than Significant	None Required	--
Impact TRA-14b: The Phase I Development would not cause inadequate emergency access.	Less than Significant	None Required	--
Utilities and Service Systems			
Project			
Impact UT-1a: The Project would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects.	Significant	MM-UT-1: Require Project-specific sewer studies for projects served by the 6-inch sanitary sewer pipe in San Bruno Avenue east of Traeger Avenue. MM-HWQ-2	Less than Significant
Impact UT-2a: The Project would not result in the creation of a need for new or expanded entitlements or resources for sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Less than Significant	None Required	--
Impact UT-3a: Project implementation would not result in an exceedance of existing wastewater treatment capacity.	Less than Significant	None Required	--
Impact UT-4a: The Project would not result in an exceedance of state or local solid waste standards or of the capacity of local infrastructure, non-compliance with federal, state, and local solid waste management and reduction statutes and regulations, or other impediments to attaining solid waste reduction goals.	Less than Significant	None Required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact C-UT-1:[a] The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects.	Significant	MM-UT-1 MM-HWQ-2	Less than Cumulatively Considerable
Phase I Development			
Impact UT-1b: The Phase I Development would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects.	Significant	MM-HWQ-2	Less than Significant
Impact UT-2b: The Phase I Development would not result in the creation of a need for new or expanded entitlements or resources for sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Less than Significant	None Required	--
Impact UT-3b: Phase I Development implementation would not result in an exceedance of existing wastewater treatment capacity.	Less than Significant	None Required	--
Impact UT-4b: The Phase I Development would not result in an exceedance of state or local solid waste standards or of the capacity of local infrastructure, non-compliance with federal, state, and local solid waste management and reduction statutes and regulations, or other impediments to attaining solid waste reduction goals.	Less than Significant	None Required	--

[a] Only cumulative impacts found to be significant are shown in this summary table.

Chapter 1
Introduction

1.1 Purpose of This Environmental Impact Report

This ~~Draft~~ Environmental Impact Report (~~Draft~~ EIR) for the Bayhill Specific Plan and Phase I Development (Project) has been prepared by the Project's Lead Agency, the City of San Bruno (City), in conformance with the provisions of the California Environmental Quality Act (CEQA) statute and CEQA Guidelines. The Lead Agency is the public agency with principal responsibility for carrying out or approving a project.

This ~~Draft~~ EIR assesses potentially significant impacts that could result from the Project. As defined in CEQA Guidelines Section 15382, a "significant effect on the environment" is:

> …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. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

As stated in the CEQA Guidelines, an EIR is an "informational document." It is intended to inform public agency decision makers and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to a project. The purpose of this ~~Draft~~ EIR is to provide the City, responsible and trustee agencies, other public agencies, and the public with detailed information about the environmental effects that could result from implementing the Project; examine and set forth feasible methods of mitigating any adverse environmental impacts should the Project be approved; and consider feasible alternatives to the Project. The City will use the EIR, along with other information in the public record, to determine whether to approve, modify, or deny the Project and specify any applicable environmental conditions or mitigation measures as part of the Project approvals.

1.2 Intended Uses of the EIR

As described above, the purpose of this EIR is to disclose and assess the potential environmental impacts associated with the adoption and implementation of the proposed Specific Plan and approval of the Phase I Development, and to determine corresponding mitigation measures as necessary. This EIR serves as a single CEQA document that will provide environmental clearance for both the adoption of the Specific Plan and approval of the Phase I Development. This EIR provides a program-level review of the Specific Plan and a project-level review of the Phase I Development. As such, this EIR will provide the environmental review needed under CEQA to support full entitlement of the Phase I Development, while also serving as a program-level document that can be used for streamlined environmental review for future projects within the Project Site. Refer to Section 2.4 in Chapter 2, *Project Description*, for a discussion of potential options for streamlined environmental review for future projects under this EIR.

1.3 Project Overview

The 92.2-acre Project Site includes the Bayhill Office Park and Bayhill Shopping Center, and abuts the City's adopted Transit Corridors Specific Plan area located to the east. The Bayhill Office Park is San Bruno's largest employment center, providing space for tenants including YouTube, Walmart.com, the Kaiser Foundation, The Police Credit Union, and others. YouTube is the primary property owner within the Project Site. In 2016, YouTube representatives presented the City with a long-term plan to fulfill the company's future employment needs over a 20-year period. To accommodate this anticipated long-term employment growth, YouTube is pursuing a plan for phased redevelopment of some of its properties within the Bayhill Office Park to add office space. In 2019, YouTube submitted an entitlement application for the Phase I Development, the first phase of its expansion plan. Recognizing the need to ensure that YouTube's expansion needs are integrated into a high quality setting that benefits Bayhill's other property owners, as well as the broader San Bruno community, the City prepared the Bayhill Specific Plan (Specific Plan). The Specific Plan is a regulatory mechanism that identifies and establishes allowable land uses, intensities, densities, and design standards, along with a full range of infrastructure and circulation improvements in order to guide new development within the Project Site. A detailed description of the Project, comprising the Specific Plan and Phase I Development, is provided in Chapter 2, *Project Description*.

1.3.1 Specific Plan

The Specific Plan outlines a cohesive, long-term, community-driven vision for the Project Site that facilitates integrated development and intensification of land uses beyond what currently exists today. It incorporates new internal vehicular streets and pedestrian and bicycle paths, as well as improvements to streetscapes. The Specific Plan includes new maximum development intensities; design standards and guidelines; circulation and access improvements; and other improvements to public infrastructure; as well as an implementation plan and financing strategy. The overarching goal of the Specific Plan is to ensure that the Project Site is developed in a cohesive manner that serves both the needs of current and future tenants, as well as the broader San Bruno community, ultimately providing for the establishment of a high quality and inviting area that supports the proposed uses, as well as a vibrant public realm. The Specific Plan supports the development of infrastructure to improve access and connectivity within the Project Site.

1.3.2 Phase I Development

As discussed above, the Phase I Development is the first phase of YouTube's 15-year expansion plan. The Phase I Development, which has been designed to be consistent with the Specific Plan, would construct two new office buildings comprising a total of 440,000 square feet. The buildings would be constructed on existing surface parking lots to the east of the existing structures at 900 and 1000 Cherry Avenue (Phase I Site). The proposed structures would measure no higher than three stories, or 50 feet, in total height. Three levels of subgrade parking would be provided at both parcels. The Phase I Development also includes supporting development outside the Phase I Site but within the Project Site, including a new off-street multi-modal transportation hub on the parcel at 950 Elm Avenue, realignment of Grundy Lane, vacation of the north end of Elm Avenue, and demolition of the existing buildings located at 1150 – 1250 Bayhill Drive for temporary parking during construction (and future development of the Phase II buildings).

1.3.3 Buildout Scenario

Section 15126.2 of the CEQA Guidelines requires that an EIR focus on the significant "direct and indirect" and "short-term and long-term" effects of a project. To ensure a conservative approach in analyzing environmental impacts under CEQA, EIRs typically analyze what could be considered a worst-case scenario in order to disclose all potential significant impacts that could occur from implementation of a project. For a programmatic evaluation of a land use plan, this entails projecting buildout calculations to carry through the environmental review analysis.

The term "buildout" refers to the future scenario in which development that would be permitted under the Specific Plan is fully implemented. The Specific Plan would allow for the development of up to approximately 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of approximately 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multifamily residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted density is not exceeded. To account for the variability resulting from the housing overlay zone, two different buildout scenarios have been developed for purposes of the EIR analysis:

1. The Maximum Office Scenario, where no residential construction occurs within the housing and mixed-use overlay zones
2. The Maximum Housing Scenario, where the housing development is constructed within the furthest range allowable under the Specific Plan.

Each chapter of this EIR analyzes the buildout scenario that represents the "worst-case" scenario for the resource area being analyzed. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts. Section 2.6.1 of Chapter 2, *Project Description*, of this EIR, provides estimates of the amount of new office and residential space that could be developed under the two scenarios.

1.4 CEQA Process

1.4.1 Notice of Preparation and Scoping Meeting

The term "scoping" refers to the process used to assist the lead agency in determining the focus and content of an EIR. Scoping solicits input on the potential topics to be addressed in an EIR, the range of project alternatives, and possible mitigation measures. Scoping is also helpful in establishing methods of assessment and selecting the environmental effect to be considered. The scoping process for this EIR was initiated on November 17, 2017, when the City of San Bruno submitted the Notice of Preparation (NOP) to the California State Clearinghouse for distribution to state agencies and regional agencies, as well as the City of Millbrae, the City of Pacifica, and the City of South San Francisco. The purpose of the NOP is to solicit participation from relevant agencies and from the public in determining the scope of an EIR. The scoping period for this EIR ended on December 22, 2017. A public scoping meeting was held on December 5, 2017, at the San Bruno Senior Center (1555 Crystal Springs Road, San Bruno, CA 94066). Comments received during the scoping process are on file at the City of San Bruno Community Development Department (567 El Camino Real, San Bruno, CA 94066). The NOP is included in Appendix 1 of this EIR.

In response to the November 2017 NOP, letters were received from the following agencies and organizations:

- California Department of Transportation
- City/County Association of Governments of San Mateo County
- San Francisco International Airport
- Sierra Club

On July 26, 2019, the City distributed a revised NOP to alert interested parties and solicit public and agency input regarding: (1) changes to the boundaries of the Project Site, (2) the inclusion of additional improvements and items as part of the Phase I Development, and (3) revisions to the list of environmental effects that will be evaluated in the EIR. The revised NOP is also included in Appendix 1 of this EIR. A second public scoping meeting was not held.

In response to the July 2019 revised NOP, letters were received from the following agencies and organizations:

- California Department of Transportation
- San Francisco International Airport
- Native American Heritage Commission
- San Francisco Public Utilities Commission

1.5 Content of this ~~Draft~~ Environmental Impact Report

As discussed above, this EIR analyzes the potential environmental impacts that could result from the implementation of the Specific Plan and the construction and operation of the Phase I Development. Topic areas addressed in Chapter 3, *Environmental Impacts Analysis*, include:

- Visual Resources
- Air Quality
- Energy
- Greenhouse Gases
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities and Service Systems

During the scoping process for this ~~Draft~~ EIR, the City of San Bruno determined that implementation of the Project would not result in significant environmental impacts on Agriculture and Forestry

Resources, Biological Resources, Cultural Resources and Tribal Cultural Resources, Geology/Soils, Hazards/Hazardous Materials, Mineral Resources, or Wildfire. A detailed analysis of these topics is therefore not included in this ~~Draft~~ EIR. Refer to the *Impacts Requiring No Further Analysis* discussion beginning on page 3-4 in Chapter 3, *Environmental Impact Analysis*, of this EIR for further discussion.

1.5.1 ~~Draft~~ ~~EIR~~ CEQA Overview

1.5.1.1 Impact Analysis

This ~~Draft~~ EIR analyzes significant effects that could result from the Project. As explained in Section 15002(g) of the CEQA Guidelines, a significant effect on the environment is defined as a substantial adverse change in the physical conditions that exist in the area affected by a project. Pre-project environmental conditions (the environmental baseline) are considered in determining impact significance. The impact significance thresholds for each environmental resource area presented in this ~~Draft~~ EIR are based on CEQA Guidelines Appendix G, Environmental Checklist Form (supplement or revised as appropriate to fit the proposed project). Where significant impacts are identified, the ~~Draft~~ EIR recommends feasible mitigation measures to reduce, eliminate, or avoid the significant impacts and identifies which impacts remain significant and unavoidable despite the mitigation measures. Cumulative impacts (i.e., two or more individual effects, either from a single project or from two or more separate projects, that, when considered together, compound or increase other related environmental impacts) are discussed for each environmental resource area. This document also discusses alternatives to the Project in Chapter 5, *Alternatives*.

In accordance with Section 15143 of the CEQA Guidelines, this ~~Draft~~ EIR provides an analysis of the significant effects on the environment that could result from construction and operation of the Project. Section 15131 of the CEQA Guidelines specifies that "the intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes." Therefore, this ~~Draft~~ EIR does not treat economic or social effects of the Project as significant effects on the environment, unless they result in physical changes to the environment. In addition, if it is determined that a potential impact is too speculative for evaluation, this condition is noted, and further discussion of the impact is not necessary.

1.5.1.2 Public Review of the Draft EIR

~~This~~ The Draft EIR is considered a draft under CEQA because it must be reviewed and commented upon by public agencies, organizations, and individuals before being finalized. The Draft EIR was made available to the public and regulatory agencies for review and comment during the minimum 45-day comment period between January 14, 2021 and March 1, 2021. ~~This document is being distributed for a 45-day public review and comment period~~. Readers ~~are~~ were invited to submit written comments on the document to the City of San Bruno Community Development Department. A public hearing was also held on February 16, 2021 by the San Bruno Planning Commission to receive comments on the Draft EIR. Eleven comment letters were received and six individuals commented at the public hearing. ~~Comments are most helpful when they provide new information or suggest specific alternatives or measures that would better mitigate significant environmental effects. Written comments should be submitted to:~~

~~Matt Neuebaumer, Associate Planner~~
~~City of San Bruno~~

~~Community Development Department~~
~~567 El Camino Real~~
San Bruno, CA, US 94066
MNeuebaumer@sanbruno.ca.gov

1.5.1.3 Final EIR

The Guidelines implementing CEQA require that written responses be prepared for all written comments received on a Draft EIR during the public review period. CEQA Guidelines Section 15132 specifically states:

The Final EIR shall consist of:

- The Draft EIR or a revision of that draft.
- Comments and recommendations received on the Draft EIR either verbatim or in a summary.
- A list of persons, organizations, and public agencies commenting on the Draft EIR.
- The response of the Lead Agency to significant environmental points raised in the review and consultation process.
- Any other information added by the Lead Agency.

This Final EIR has been prepared in compliance with these Guidelines and includes the following:

- A complete revision of the Draft EIR, with revisions to the Draft EIR shown in underline/strikeout.
- Written and verbal comments received on the Draft EIR, including a list of persons, organizations, and public agencies commenting on the Draft EIR (Appendix 6).
- The City's responses to the comments received on the Draft EIR (Appendix 7).

1.6 ~~Draft~~ Environmental Impact Report Organization

This ~~Draft~~ EIR is organized into the following chapters:

- *Executive Summary*: Provides a summary of the Specific Plan and Phase I Development and the impacts that would result from their implementation and describes mitigation measures recommended to reduce, eliminate, or avoid significant impacts. The Executive Summary also discusses alternatives to the Project.
- *Chapter 1—Introduction*: Discusses the overall purpose of the ~~Draft~~ EIR, provides a summary of the Project and the CEQA process, and summarizes the organization of the ~~Draft~~ EIR.
- *Chapter 2—Project Description*: Provides a description of the Project Site, Project objectives, required approvals process, and Project characteristics.
- *Chapter 3—Environmental Impact Analysis*: Describes the existing conditions/setting, analyzes the environmental impacts, provides mitigation measures (if applicable) for each environmental resource area, and analyzes cumulative impacts.

- *Chapter 4—Other CEQA Considerations*: Provides additional, specifically required analyses of the Project's effects, significant irreversible changes, induced growth, urban decay, and energy conservation.
- *Chapter 5—Alternatives*: Evaluates two alternatives to the Project, in addition to the No-Project Alternative, and explains why various other alternatives that were considered were not carried forward for detailed evaluation.
- *Chapter 6—List of Preparers*: This chapter provides the names of chapter/report authors as well as persons and organizations that were consulted during the preparation of the EIR.
- *Chapter 7—References*: This chapter lists the references that were cited throughout the EIR.
- *~~Draft~~ EIR Appendices*: The ~~Draft~~ EIR includes the following appendices.
  - Appendix 1 – Notice of Preparation and Revised Notice of Preparation
  - Appendix 2 – ~~Draft~~ Bayhill Specific Plan
  - Appendix 3.0-1 – Preliminary Geotechnical Report (Project)
  - Appendix 3.0-2 – Preliminary Geotechnical Report (Phase I Development)
  - Appendix 3.0-3 – Phase I Environmental Site Assessment
  - Appendix 3.0-4 – FAA Review Technical Memorandum
  - Appendix 3.2-1 – Air Quality and Greenhouse Gas Supporting Data
  - Appendix 3.5-1 – Hydrology and Water Quality Evaluation
  - Appendix 3.5-2 – Groundwater Assessment
  - Appendix 3.7-1 – Noise Supporting Data
  - Appendix 3.10-1 – Transportation Supporting Data
  - Appendix 3.11-1a – Water Supply Assessment (WSA), September 3, 2019
  - Appendix 3.11-1b – Water Supply Assessment Addendum (WSA Addendum), July 13, 2021
  - Appendix 3.11-2 – Water System Hydraulic Evaluation
  - Appendix 3.11-3 – Sanitary Sewer Impact Study
  - Appendix 4 – Equivalency Analysis
  - Appendix 5 – Phase I Temporary Shoring Plan and Caltrans Encroachment Exhibit
  - Appendix 6 – Comments Received on the Draft EIR
  - Appendix 7 – Responses to Comments
  - Appendix 8 – SFPUC Meeting Minutes Bayhill Specific Plan Draft EIR

Chapter 2
Project Description

This chapter of the ~~Draft~~ Environmental Impact Report (EIR) describes the Project, comprising a) the proposed Bayhill Specific Plan (Specific Plan), and b) Phase I of YouTube's 15-year expansion plan (Phase I Development). The Specific Plan is a land use, transportation, and capital improvements plan that outlines a cohesive, long-term, community-driven vision for the Bayhill Planning Area (Project Site), a 92.2-acre site in the City of San Bruno that includes the headquarters of YouTube as well as several other office and commercial/retail uses. The Phase I Development is a proposed development project within the Project Site. The Specific Plan intent is to promote cohesive long-term development of the Project Site over a 20 year period, and ensure that YouTube's expansion needs are integrated into an attractive setting that benefits Bayhill's other property owners, as well as the broader San Bruno community. This Project Description provides a general overview of the Project, including the background and planning process for the Specific Plan, and detailed descriptions of the Specific Plan and Phase I Development.

2.1 Background and Planning Process

The City of San Bruno (City) is a largely residential city located in northern San Mateo County with a population of 44,859. Founded as a railroad suburb in 1914, the City has grown to incorporate a variety of urban and commercial uses. Its location between San Francisco and the Silicon Valley, transit connections, and proximity to the San Francisco International Airport (SFO) have made San Bruno an increasingly desirable location for technology companies (State of California 2019).

The 92.2-acre Project Site includes the Bayhill Office Park and Bayhill Shopping Center, and abuts the City's adopted Transit Corridors Specific Plan area to the east. Construction of the Bayhill Office Park began in the 1970s on what was formerly undeveloped and agricultural land. Today it is San Bruno's largest employment center, providing space for tenants including YouTube, Walmart.com, the Kaiser Foundation, The Police Credit Union, and others. YouTube currently occupies the 901 Cherry Avenue property (formerly The Gap headquarters) and several other buildings in the office park. YouTube (or its affiliated entities) owns ten parcels within the Bayhill Office Park, containing approximately 1.1 million square feet of existing office space, and is the primary property owner within the Project Site.

YouTube plans to further expand its workforce in San Bruno. In 2016, YouTube representatives presented the City with a phased plan to accommodate the company's employment and office needs over a 15-year period. In 2019, YouTube submitted an entitlement application for the Phase I Development. Recognizing the need to ensure that YouTube's expansion needs are integrated into a high quality setting that benefits Bayhill's other property owners as well as the broader San Bruno community, the City prepared the proposed Specific Plan. The Specific Plan is a policy and regulatory document that identifies and establishes allowable land uses, intensities, densities, and design standards, along with a full range of infrastructure and circulation improvements in order to guide new development within the Project Site.

The City has undertaken a community-based planning process in developing the proposed Specific Plan, beginning in mid-2017. During the initial visioning phase the City conducted a community outreach process consisting of community workshops, a series of stakeholder interviews, a property owner forum, and joint study sessions of the City Council and Planning Commission. Four concept alternatives for the Specific Plan were developed during this process. The alternatives explored different ways in which office, retail, and housing uses, as well as public/civic spaces, could be distributed within the Project Site, framing possible future development patterns. Preliminary street design concepts were also developed to illustrate potential improvements to roadways and intersections to enhance pedestrian experience and safety, increase multimodal connectivity, and improve corridor identities within the Project Site. On December 4, 2018, a Preferred Alternative for development was selected by the City Council for evaluation in this EIR.

2.2 Project Location

2.2.1 Regional Location

San Bruno is a 5.5 square-mile (3,500-acre) city located in San Mateo County on the eastern side of the San Francisco Peninsula. As shown in Figure 2-1, San Bruno is located approximately 12 miles south of San Francisco, immediately north of the City of Millbrae and west of the San Francisco International Airport, bounded by Highway 101 on the east and the Coast Range on the west. The older, eastern half of San Bruno contains a diversity of land uses and residential types, while the western half is comprised mostly of single-family subdivisions. The City is connected to major transportation corridors by Highway 101, Interstates 280 and 380, and El Camino Real. The downtown area is centered along San Mateo Avenue from El Camino Real to San Bruno Avenue.

2.2.2 Project Site

As shown in Figure 2-2, the Project Site comprises approximately 92.2 acres in the central-eastern portion of San Bruno. It is bounded by Interstates 280 to the west and 380 to the north, the properties fronting El Camino Real to the east, and San Bruno Avenue West from Elm Avenue to Interstate 280 to the south. Four properties that front on El Camino Real and one on San Bruno Avenue West abut the Project Site and are located within the City's adopted Transit Corridors Specific Plan area. As discussed below, the Project Site includes the Bayhill Office Park and the Bayhill Shopping Center. The easternmost portion of the Project Site is approximately 0.35 miles west of the San Bruno Caltrain Station and 0.50 mile southwest of the San Bruno BART Station. The Project Site has a moderate slope, with generally decreasing elevations from Cherry Avenue towards El Camino Real. Topographic elevations range from approximately 160 feet above sea level at the western portion of the Project Site to approximately 60 feet above sea level at the eastern portion.

2.2.2.1 Phase I Site

As shown in Figure 2-2, the 8.39-acre site containing YouTube's Phase I Development (Phase I Site) is located within the Project Site and is comprised of two separate parcels (APNs 020-015-020 and 020-011-230) separated by Grundy Lane and bordered by Cherry Avenue to the west, Interstate 380 to the north, Bayhill Drive to the south, and adjacent office properties to the east. The western portion of the Phase I Site is relatively level, sloping downward to the east-northeast.

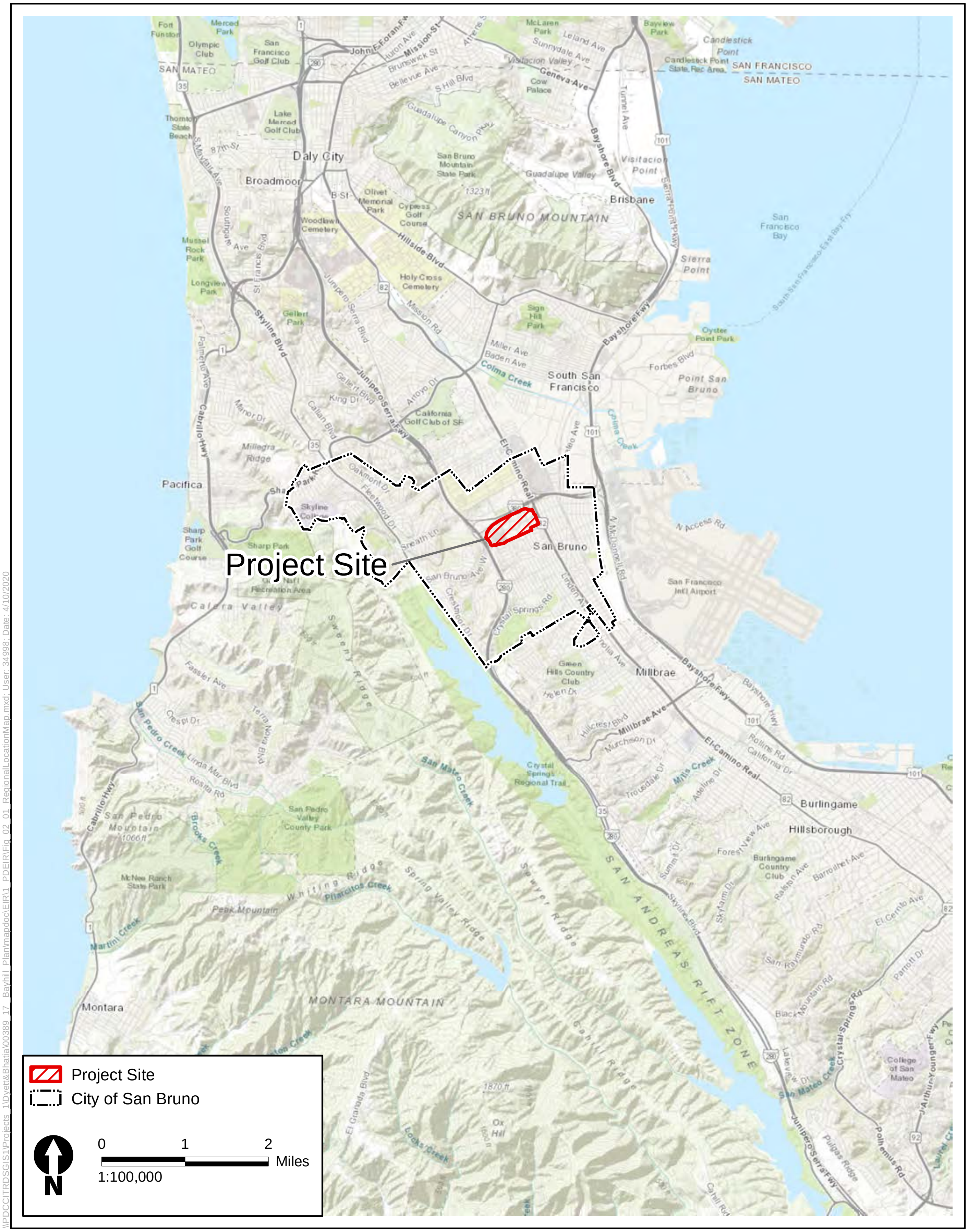

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Figure 2-1
Regional Location Map

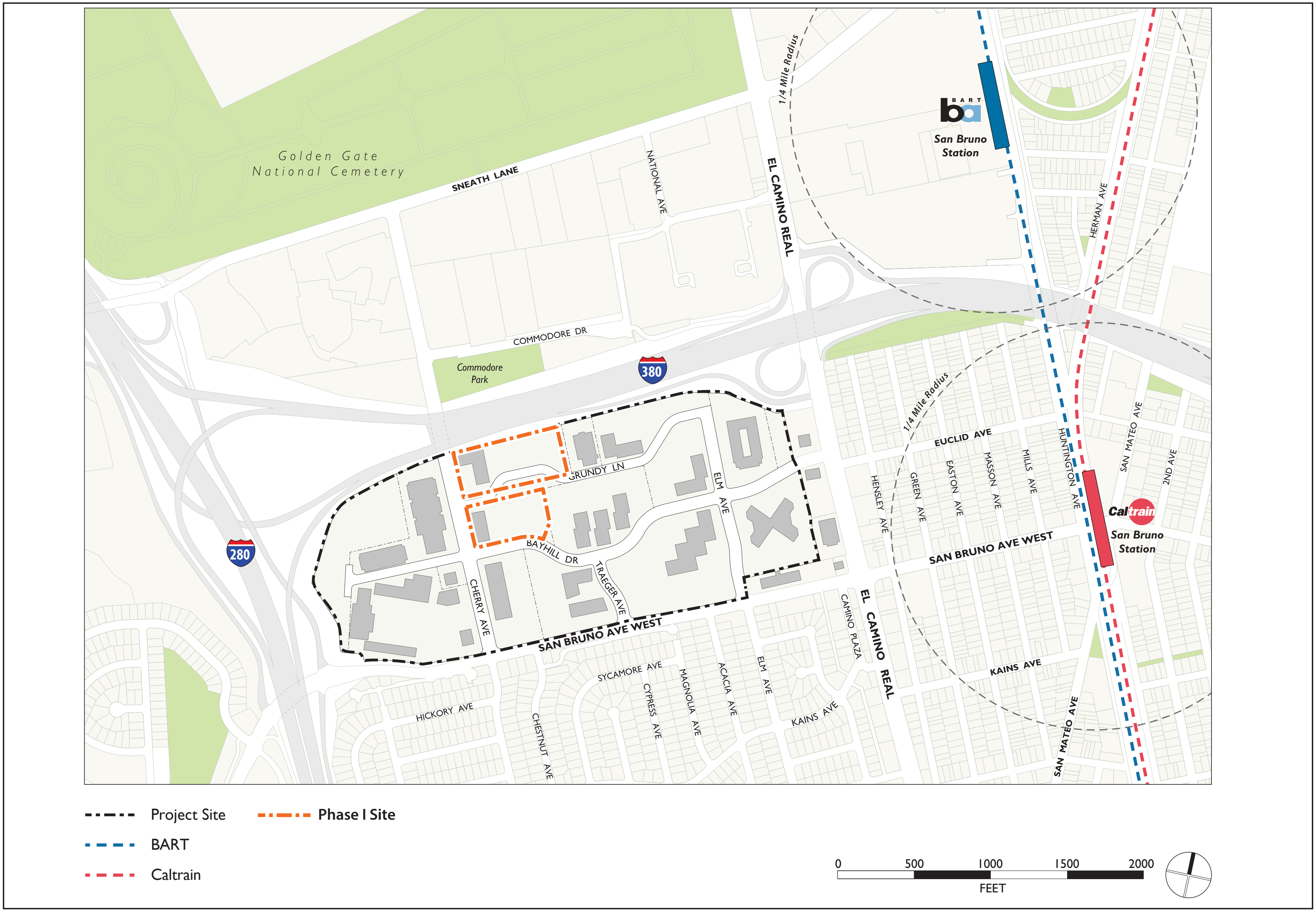

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Figure 2-2
Project Site Location Map

2.3 Setting

2.3.1 Existing Land Use

As shown in Figure 2-3, the 92.2-acre Project Site is located in a highly urbanized area with freeways to the north and west, single-family residential uses to the south, and commercial/residential uses to the east. The existing office buildings are set back from the internal roadway system with surface parking lots.

As shown in Table 2-1, the Project Site is currently occupied by various land uses, including office, retail/commercial, hotel, and streets/right-of-way. The majority, approximately 61 percent, of the Project Site is occupied by office uses (including associated surface parking lots), with approximately 11 percent occupied by retail/commercial uses (including associated surface parking lots). The remainder is occupied by a hotel (including associated surface parking lots), streets/right-of-way, San Francisco Public Utility Commission (SFPUC) easements (discussed below), a stand-alone parking lot, and a small amount of vacant land.

Table 2-1. Summary of Existing Land Uses

Existing Land Use Categories	Acres	Percent of Total
Office	56.2	60.9%
Retail/Commercial	10.5	11.4%
Vacant	6.4	7.0%
Hotel	4.3	4.7%
Streets/Right-of-Way and other[a]	14.7	16.0%
Total	92.2	100%

Source: City of San Bruno
Notes:
Numbers may not add due to rounding.
Acreages include surface parking areas associated with each respective use.
[a] Includes a stand-alone surface parking lot

Existing land uses on the Project Site are described below based on their general location within the Project Site (refer to Figure 2-3):

- **East of Elm Avenue**. The area east of Elm Avenue and extending to the rear of the properties fronting El Camino Real and San Bruno Avenue West includes hotel (Courtyard by Marriott) and office uses, along with a stand-alone surface parking lot located between the hotel and 901 El Camino Real (Kaiser Permanente medical offices). The entirety of this area is developed and includes small areas of landscaping (trees, shrubs, and groundcover). Existing buildings reach a maximum height of 40 feet. As shown in Figure 2-4, YouTube currently owns two parcels in this area.
- **Between Elm Avenue and Cherry Avenue.** The Bayhill Office Park comprises the majority of the area between Elm Avenue and Cherry Avenue. The area is entirely occupied by office uses, with building heights that range from two stories to six stories. This area includes the tallest building on the Project Site – the six-story (90-foot) Walmart.com building at 850 Cherry Avenue. A large portion of the area is comprised of surface parking lots with interspersed landscaped areas. As shown in Figure 2-4, YouTube owns a majority of the parcels in the area. Remaining parcels are owned by The Police Credit Union, Walmart, and others.

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Figure 2-3
Aerial Photograph of Project Site

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Figure 2-4
Existing Ownership Map

- **West of Cherry Avenue.** The area west of Cherry Avenue includes office and retail/commercial uses, including the Bayhill Shopping Center which contains grocery and retail stores as well as restaurants. Building heights within the Bayhill Shopping Center do not exceed 28 feet. 901 Cherry Avenue (owned by YouTube) is located at Cherry Avenue and Bayhill Drive and is 45 feet tall. West of 901 Cherry Avenue is the only vacant, undeveloped land within the Project Site, also owned by YouTube.

All of the existing buildings within the Project Site were constructed after 1972. Details regarding the existing structures in the Project Site, including built year and square footage, are provided in Table 2-2.

Table 2-2. Existing Structures on the Project Site

Address	APN[a]	Current Use	Year Constructed	Size (sf)[b]
1000 Cherry Ave.[c]	020-011-230	office	1978	94,465
1250 Grundy Lane	020-011-290	office	2019	67,586
1100 Grundy Lane	020-011-330	office	1983	101,123
900 Cherry Ave.[c]	020-015-020	office	1978	102,252
1150, 1200, 1250 Bayhill Dr.	020-015-030	medical/office	1976	138,524
950 Elm Ave.	020-015-040	office	1982	106,099
1050 Bayhill Dr.	020-011-360	hotel	1987	79,152
999, 1001 Bayhill Dr.	020-019-070	office	1989	140,969
1111 Bayhill Dr.	020-018-010	office	1985	206,137
851, 801 Traegar Ave.	020-017-020	medical/office	1980	134,712
850 Cherry Ave.	020-017-010	office	2000	270,980
899 Cherry Ave.	020-012-120	restaurant	After 1980	4,003
811, 851 Cherry Ave.	020-012-190	commercial/retail/restaurant	After 1972	117,843
901 Cherry Ave.	020-012-170	office	1997	195,000
			Total Existing Office	**1,557,847**
			Total Existing Hotel	**79,152**
			Total Existing Retail	**121,846**
			Grand total	**1,758,845**

[a] APN = assessor's parcel number
[b] sf = square feet
[c] part of Phase I Site

Two SFPUC easements are located on the Project Site, as shown in Figure 3.6-1 in Section 3.6, *Land Use and Planning*, of this ~~Draft~~ EIR. The SFPUC's San Andreas Pipelines No. 2 and No. 3 are located in a 45-foot wide easement along the western edge of the Project Site. The Sunset Supply Line and Crystal Springs Pipeline No. 2 are located in a 40-foot wide easement along the eastern edge of the Project Site.

2.3.1.1 Phase I Site

As shown in Figures 2-3 and 2-4, the Phase I Site is located within the northwest portion of the overall Project Site and is developed with two office buildings, both currently owned and occupied by YouTube. The northern parcel, 1000 Cherry Avenue (APN: 020-011-230), contains a 94,465-square foot, 3-story building at on the western portion of its 4.90 acres. The eastern portion of the parcel is developed with surface parking with associated landscaped elements. The southern parcel, 900 Cherry Avenue (APN: 020-015-

020), contains a 102,252-square foot, 6-story building at on the western side of its 3.49 acres. The eastern portion of this parcel is developed with surface parking with associated landscaped elements. Landscaped areas are interspersed throughout the parking areas and along Interstate 380 to the north and Cherry Avenue to the west. The majority of the Phase I Site is flat with a slight downward slope to the east-northeast.

2.3.2 Surrounding Uses

Land uses surrounding the Project Site include office, hotel, medical office, retail, automotive service, and multi-family residential uses along El Camino Real, single-family residential uses south of San Bruno Ave West, Interstate 280 and open space to the west, and Interstate 380 to the north.

2.3.3 Existing City of San Bruno Plans and Regulations

Existing City of San Bruno plans and regulations establish development restrictions and policy directives relevant to the Project, including the *San Bruno General Plan 2025* (General Plan), the municipal Zoning Ordinance, Ordinance 1284, and the *San Bruno Walk N' Bike Plan*. The General Plan, the Zoning Ordinance, and Ordinance 1284 designate land uses and development regulations such as allowable land uses, building densities, and heights for the entirety of the Project Site. The *San Bruno* Walk 'n Bike Plan outlines proposed short and long-term pedestrian and bicycle network projects, several of which are located within the Project Site.

2.3.3.1 General Plan

The General Plan 2025, adopted in 2009, outlines goals and policies to encourage balanced development that conserves and revitalizes established neighborhoods and commercial areas, while promoting mixed-use and transit-supportive developments adjacent to transit stations. The resulting land use classifications and development standards that are relevant to the Project Site are described below. Figure 2-5 shows the two land use classifications occurring within the Project Site: Regional Office and Neighborhood Commercial. These classifications along with the applicable floor area ratio (FAR) are described below.

- **Regional Office (maximum FAR 1.5 to 2.0).** The portion of the Project Site that is within the Bayhill Office Park is classified as Regional Office. The Regional Office land use classification accommodates administrative, professional, and medical offices located in a campus-style setting or office park. The Regional Office classification allows a maximum FAR of 1.5, with potential additional discretionary 0.5 FAR incentive for projects that provide transportation demand measures and urban design amenities, as specified in the Zoning Ordinance. The General Plan analysis considered likely development in the area and assumed an addition of 683,200 square feet of additional development within the Regional Office land use classification.
- **Neighborhood Commercial (maximum FAR 1.2)**. The portion of the Project Site that is within the Bayhill Shopping Center is classified as Neighborhood Commercial. The Neighborhood Commercial land use classification permits convenience and retail commercial uses, including grocery and drug stores, eating and drinking establishments, personal and business services, professional and medical offices, financial, insurance, and real estate offices, and auto repair facilities and services. The Neighborhood Commercial classification allows a maximum FAR of 1.2. Residential uses are conditionally permitted above ground-floor commercial uses subject to combined FAR limits.

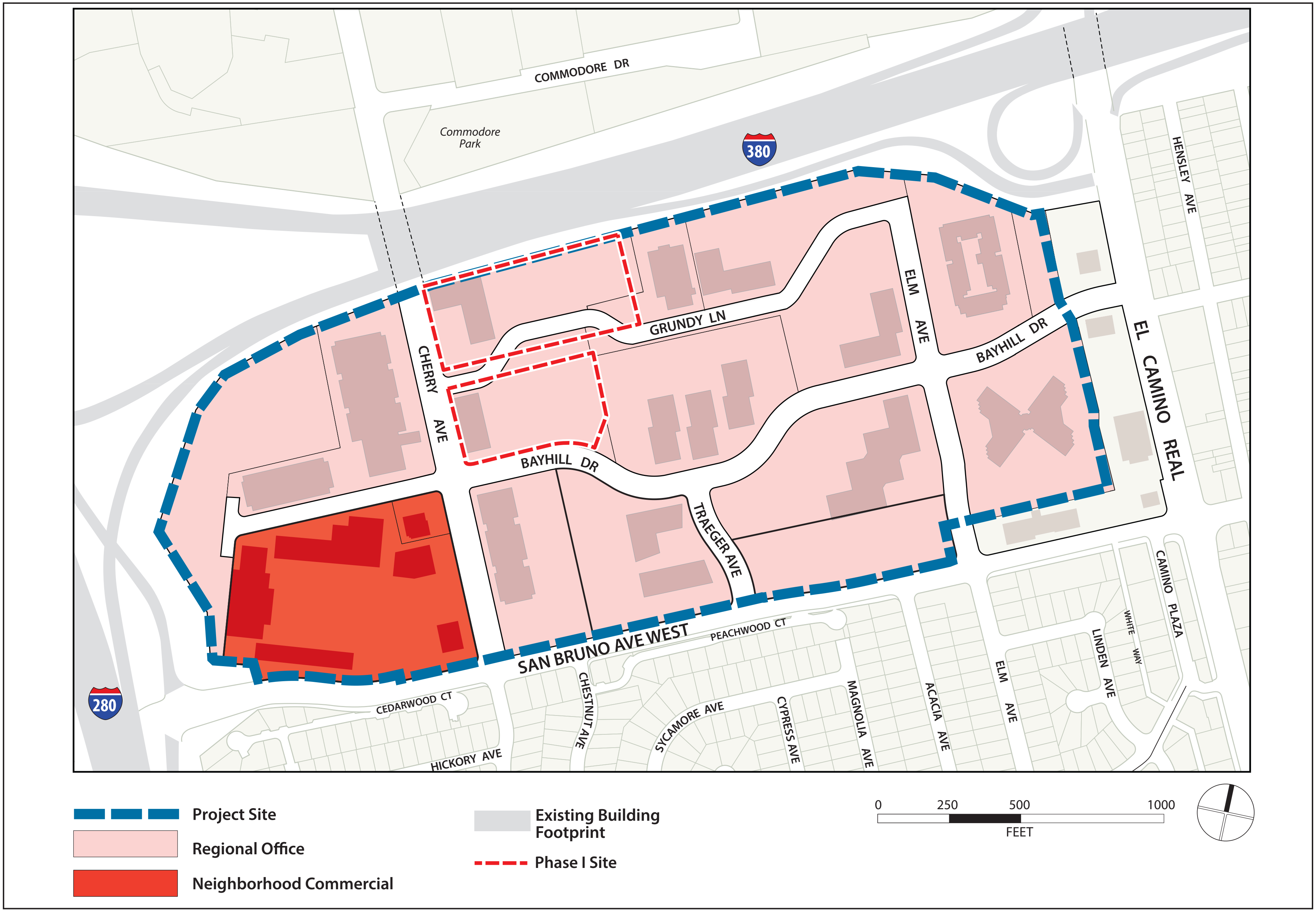

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Figure 2-5
Existing General Plan Land Use Designations

2.3.3.2 Zoning Ordinance

The City's Zoning Ordinance (Title 12, Article III of the San Bruno Municipal Code) designates zoning requirements and regulations for established and planned land uses. As shown on Figure 2-6, the Project Site contains areas in the C General Commercial, C-O Community Office, and P-D Planned Development zoning districts. The majority of the Project Site is within the Planned Development district. The zoning districts that are relevant to the Project Site are described below:

- **C General Commercial**. This district allows for a mix of retail, food stores, personal and professional services, and professional and administrative offices. Auto related uses are conditionally allowed.
- **C-O Community Office**. This district allows for a mix of office and professional uses with ancillary retail uses.
- **P-D Planned Development.** This district is meant to support a mix of uses or unusual density, building intensity or design that will produce an environment and land uses superior to that which would result from the usual zoning regulations.

2.3.3.3 Ordinance 1284

Ordinance 1284, adopted in June 1977, sets height limits on all new buildings within San Bruno to 50 feet and three stories, unless otherwise approved by a majority of the city's voters at a regular or special election. Codified in Chapter 12.26 of the San Bruno Municipal Code, Ordinance 1284 also restricts the construction of multi-story parking structures, limits development along local scenic corridors, and restricts the increase of residential densities in areas that were zoned residential in 1974. Existing building heights and height limitations are shown in Figure 2-7. As shown, the 50-foot/three-story height limit applies to the Project Site.

2.3.3.4 San Bruno Walk 'N Bike Plan

The *San Bruno Walk 'n Bike Plan* (Walk 'n Bike Plan), adopted in July 2016, is San Bruno's first pedestrian and bicycle master plan. It seeks to make walking and biking in San Bruno safer and easier for both transportation and recreation. The Walk 'n Bike Plan contains capital and infrastructure projects (e.g., corner bulbouts, crosswalks, separated bikes lanes, bike parking facilities, etc.) for improving conditions for walking and bicycling, including a proposed citywide bikeway network. The Walk 'n Bike Plan contains several projects within the Project Site, including a proposed bike lane with a "road diet" along Bayhill Drive (reducing one lane of motorized traffic in exchange for a bike lane and pedestrian pathways), a separated bikeway along Cherry Avenue, a bike lane with road widening along San Bruno Avenue West, and a variety of pedestrian streetscape and crosswalk improvements. These improvements are shown in Figures 3.10-3 and 3.10-4 in Section 3.10, *Transportation*, of this EIR (City of San Bruno 2019).

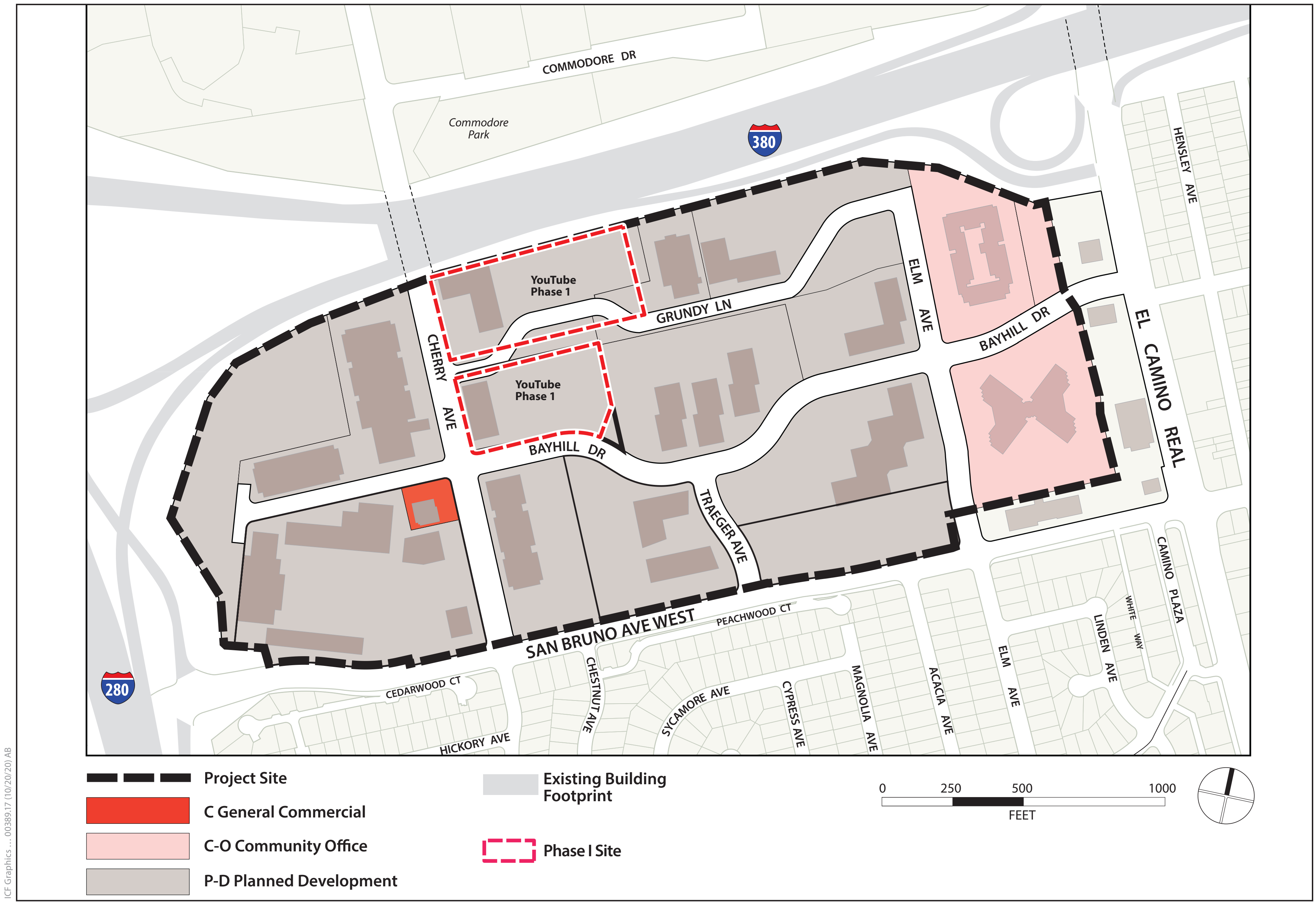

Figure 2-6
Existing Zoning Districts

Figure 2-7
Existing Building Heights and Limits

2.3.3.5 Green Infrastructure Plan

In 2019, the City of San Bruno adopted a Citywide Green Infrastructure Plan, intended to facilitate the integration of stormwater infrastructure that is inspired by natural watershed processes into the City's planning and development process. The Green Infrastructure Plan contains a work plan for integration of green infrastructure goals and strategies into City and regional plans and policies, as well as guidance materials pertaining to green infrastructure sizing, design, construction, maintenance, and post-construction performance tracking. The Green Infrastructure Plan explicitly refers to the Bayhill Specific Plan, which it identifies as a possible location for green infrastructure installation.

2.3.4 Other Land Use Plans and Regulations

Other regional land use planning documents also govern uses within the Project Site. These include *Plan Bay Area 2040* and the *Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport*. These plans are summarized below. For further discussion of regional land use plans refer to Section 3.6, *Land Use and Planning*, of this EIR.

2.3.4.1 Plan Bay Area 2040

SB 375 requires preparation of a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP) for the Bay Area. The Metropolitan Transportation Commission (MTC) and Association of Bay Area Government's (ABAG) *Plan Bay Area 2040,* adopted July 2017, is the Bay Area's Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). *Plan Bay Area 2040* provides a transportation and land use/housing strategy addressing transportation and land development in order to reduce greenhouse gas (GHG) emissions while accommodating future population growth. To meet regional land use and transportation planning objectives, local Bay Area governments identified Priority Development Areas (PDAs) (Association of Bay Area Governments 2019), transit-oriented infill development opportunity areas which are expected to accommodate over two-thirds of all regional growth by 2040. Figure 2-8 shows that the entirety of the Project Site is within a PDA.

2.3.4.2 Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport

The *Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport* (ALUCP), prepared by the City/County Association of Governments of San Mateo County, is a State-mandated land use plan that addresses the compatibility of airport operations with surrounding land uses in local jurisdictions. The ALUCP establishes airport influence areas and safety compatibility zones. As further discussed in Section 3.6, *Land Use and Planning*, of this EIR, the Project Site falls within the Airport Influence Areas A and B, and does not fall within any of the airport's Safety Compatibility Zones. The ALUCP also includes Community Noise Equivalent Level (CNEL) noise contours which designate areas where noise exposure is great enough to warrant land use controls to promote noise compatibility. As further discussed in Section 3.7, *Noise*, of this EIR, the airport's 65 decibel (dB) CNEL noise contour crosses the northeast corner of the Project Site (refer to Figure 3.7-1). No other portions of the Project Site fall within a CNEL noise contour designated by the ALUCP as warranting land use control.

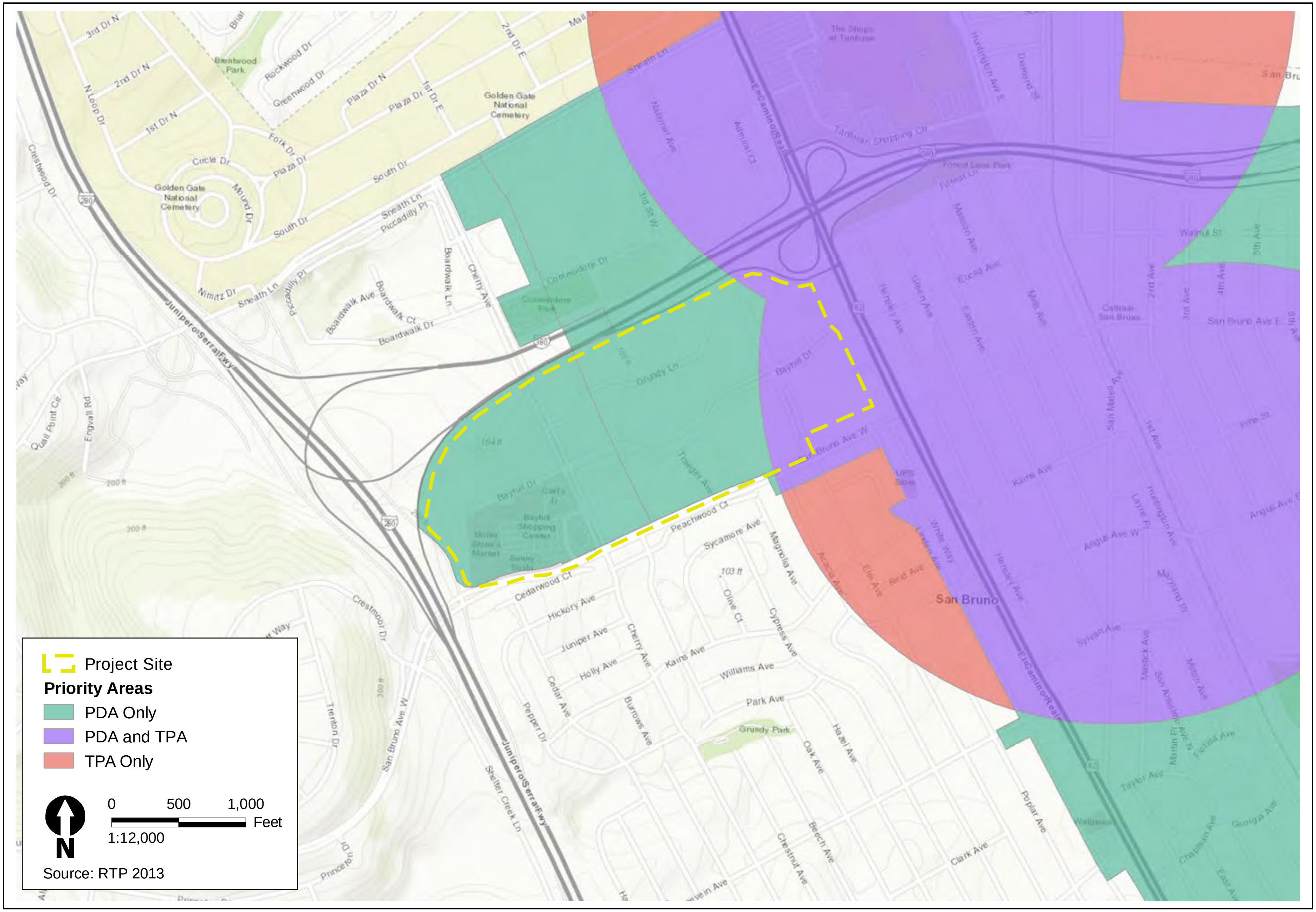

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Figure 2-8
Priority Development Areas and Transit Priority Areas

2.3.4.3 SFPUC Guidelines

The SFPUC owns and manages land and water system infrastructure for its own exclusive use that is part of the Hetch Hetchy Regional Water System. The primary use of SFPUC lands and easements is for the delivery, operation, maintenance and protection of water, power, and sewer systems. As discussed above, the SFPUC maintains two easements in the Project Site. The SFPUC has adopted guidelines to help inform how and in which instances the easements can serve the needs of public agencies, private parties, nonprofit organizations, and developers, while maintaining the safety and security of the SFPUC pipelines. SFPUC guidelines pertain to land use and structures, recreational use, utilities, vegetation, and water efficiency. The easements also are subject to terms and restrictions regarding use of land contained in the original deeds granting the easements to the SFPUC.

2.4 Intended Uses of the EIR

The purpose of this EIR is to assess and disclose the potential environmental impacts associated with the adoption and implementation of the Specific Plan and approval of the Phase I Development, and to determine corresponding mitigation measures as necessary. This EIR is a single CEQA document that provides environmental clearance for both the adoption of the Specific Plan and approval of the Phase I Development. (See Section 2.7 below for a list of the required approvals for each Project component.) It provides a program-level review of the Specific Plan and a project-level review of the Phase I Development. As such, this EIR allows for the full entitlement of the Phase I Development, while also serving as a program-level document that provides for streamlined environmental review for later activities within the Project Site.

CEQA Guidelines section 15168 establishes the use of program EIRs for later activities. As defined therein, a program EIR is an EIR prepared on a series of related actions that can be characterized as one large project. Feasible mitigation measures and alternatives developed in the program EIR must be incorporated into later activities in the program to the extent applicable to the individual later activity. Later activities must be evaluated to determine whether additional environmental review is needed. If a later activity is determined to be “within the scope” of the project covered by the program EIR, the lead agency can make a finding of consistency and approve the activity without having to prepare a new environmental document. The lead agency should use a written checklist or similar device to determine whether the environmental effects of the later action are within the scope of the program EIR.

If the lead agency determines that the later activity would have effects that were not examined in the program EIR, subsequent environmental review would be required. Conditions triggering subsequent environmental review are set forth in CEQA Guidelines sections 15162-15163 (Public Resources Code section 21166) and include:

- Substantial changes are proposed in the project which require major revisions of the EIR to address new or substantially increased significant effects.
- Substantial changes occur with respect to the circumstances under which the project is being undertaken which require major revisions in the EIR to address new or substantially increased significant effects.
- New information, which was not known and could not have been known at the time the EIR was certified as complete, becomes available that shows new or substantially increased significant effects or suggests changes to mitigation measures are needed.

A subsequent or supplemental document focuses on the newly proposed action. It upgrades the prior EIR as needed to disclose the new or more severe impacts that could result from the later action. Depending on circumstances, it may be a new subsequent EIR, a less extensive supplemental EIR, or a subsequent mitigated negative declaration. It does not re-open the analyses in the program EIR that are not related to the new or more severe impact implicated in the action. As such, a program EIR can be used to simplify the task of preparing environmental documents on later parts of the program by serving as a "tiering" document that focuses future analyses. Alternatively, an addendum under CEQA Guidelines section 15164 may be prepared if only minor technical changes or additions are necessary and none of the conditions described in CEQA Guidelines section 15162 calling for subsequent environmental review have occurred.

Additionally, pursuant to CEQA Guidelines section 15182 (Public Resources Code section 21155.4), future projects that meet the following criteria qualify for a statutory exemption from CEQA:

1. The project is a residential, employment center,[1] or mixed use project;
2. The project is located within a Transit Priority Area (TPA);
3. The project is consistent with a specific plan for which an environmental impact report was certified; and
4. The project is consistent with an adopted sustainable communities strategy or alternative planning strategy.

A TPA is defined as an area within one-half mile of an existing or planned major transit stop such as a rail transit station, a ferry terminal served by transit, or the intersection of two or more major bus routes. With its proximity to light rail (Caltrain and BART) and bus routes along El Camino Real, the eastern portion of the Project Site is within a designated TPA (see Figure 2-8); thus, future projects in that area may qualify for this exemption.

This EIR will provide environmental clearance for the required project approvals listed below in Section 2.7. Additionally, the City of San Bruno will review future projects for their conformance with the criteria discussed above to determine whether later activities may be cleared under or may tier from this EIR analysis (i.e., whether the project is within the scope of the program EIR pursuant to CEQA Guidelines section 15168, whether subsequent or supplemental review is required pursuant to CEQA Guidelines sections 15162-15163, or whether the project qualifies for a statutory exemption pursuant to Public Resources Code Section 21155.4). Future actions that would be reviewed in this context may include, but are not limited to, the following:

- Discretionary development plan approvals, such as tentative maps, conditional use permits, architectural review permits, ~~Bayhill Specific Plan Development Permits,~~ and other land use permits.
- Public improvement projects including utility and right-of-way improvements.
- Development agreement approvals.

[1] Senate Bill (SB) 743 defines an employment center as "a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area."

2.5 Project Objectives

Section 15124(b) of the CEQA Guidelines requires that a project description contain a clear statement of the project objectives, including the underlying purpose of the project. The underlying purpose of the Project is to implement a Specific Plan that outlines a cohesive, long-term vision for future development on the Project Site, and ensures that development within the Project Site is integrated into an attractive setting that benefits the Project Site's property owners as well as the broader San Bruno community. Other objectives of the Project include the following:

- Accommodate additional development within the Project Site to take advantage of its proximity to existing mass transit/public transportation and strengthen its role as the city's premier employment hub.
- Enhance the quality of the Bayhill Office Park by replacing surface parking areas with architecturally distinctive buildings constructed of high-quality materials that will contribute to the revitalization of the office park.
- Provide a cohesive vision for future development within the Project Site, recognizing Bayhill's essential nature as a business park/employment center while allowing for residential development in appropriate locations, thereby helping to serve the city and region's housing needs.
- Integrate Bayhill with the greater San Bruno community. Ensure that development is an asset to the community and enhances the area's and the city's image and quality of life.
- Ensure that the neighborhood commercial uses at the Bayhill Shopping Center that serve office park employees and the surrounding neighborhoods are retained.
- Improve multimodal connectivity to and through the Project Site so that walking and biking are safe and enjoyable experiences, and connections to the nearby San Bruno Caltrain and BART stations are strengthened.
- Promote a vibrant and mixed-use walkable district. Foster the creation of an enhanced pedestrian environment and attractive greenways along public streets for the use of city residents and office park employees.
- Promote optimal long-term development patterns and accommodate the expansion needs of existing businesses, while being adaptable to changing economic conditions and business needs.
- Provide adequate parking spaces to accommodate employee and business visitor parking demand thereby ensuring that project parking is accommodated on-site with no spill-over to adjacent neighborhoods.
- Enhance the public realm and promote quality design by incorporating amenities and promoting green building principles.
- Ensure a net positive fiscal impact for the city.
- Assure that new development mitigates its impacts and pays its fair share for infrastructure improvements needed to support the development.
- For the Phase I Development, create approximately 440,000 square feet of new office and accessory space, associated parking, and a multimodal transportation facility to meet YouTube's immediate business needs and allow for future growth.

- For the Phase I Development, design buildings to meet modern tenant needs for updated building floor plans and site configurations.
- For the Phase I Development, provide amenities that are commensurate with the Phase I Development's density.
- For the Phase I Development, ensure the safety and security of employees through secure access to and between the existing and proposed buildings and outdoor spaces.

2.6 Project Characteristics

2.6.1 Summary of Total Buildout Projections

Section 15126.2 of the CEQA Guidelines requires that an EIR focus on the significant "direct and indirect" and "short-term and long-term" effects of a project. To ensure a conservative approach in analyzing environmental impacts under CEQA, EIRs typically analyze what could be considered a worst-case scenario in order to disclose all potential significant impacts that could occur from implementation of a project. For a programmatic evaluation of a land use plan, this entails projecting buildout calculations to carry through the environmental review analysis.

The term "buildout" refers to the future scenario in which development that would be permitted under the Specific Plan is fully implemented and buildings occupied. The Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. As discussed in Section 2.6.2.2, *Land Use Concept*, the Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing overlay zone, two different buildout scenarios have been developed for purposes of the EIR analysis:

1. The Maximum Office Scenario, where no residential construction occurs within the housing and mixed-use overlay zones; and
2. The Maximum Housing Scenario, where the maximum housing development allowed under the Specific Plan is constructed. In this scenario, the amount of office development is decreased on the land area where housing is constructed, but the amount of retail space is not.

Each chapter of this EIR analyzes the buildout scenario which is the "worst-case" scenario for the resource area being analyzed. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts. For example, the Maximum Housing Scenario, which would generate the most school-age children, is analyzed in Section 3.9, *Public Services*, to determine potential impacts on school facilities. It is important to note that the buildout scenarios are only defined for purposes of environmental review. Actual buildout of the Specific Plan may fall somewhere in between the two buildout scenarios. Defining the buildout scenarios ensures that the EIR evaluates the Project's maximum potential impact regardless of what mix of land uses is actually developed.

Table 2-3 and Table 2-4 provide estimates of the amount of office, retail, hotel, and residential space that could be developed under the Maximum Office Scenario and the Maximum Housing Scenario, respectively. The number of residents and employees that could be generated under the different buildout scenarios are discussed in Section 3.8, *Population and Housing*. The characteristics of the Phase I Development would be the same under either buildout scenario, as shown in Table 2-3 and 2-4.

Table 2-3. Projected 2040 Development under the Maximum Office Scenario

	Office (sf)[a]	Retail (sf)	Hotel (sf)	Residential (DU)[b]
Existing Building Area	1,557,847	121,846	79,152 (133 rooms)	-
Existing to be Removed				
Phase I Development ~~(2022)~~	138,524	-	-	-
Remaining Specific Plan Buildout	554,328	-	-	-
Total Existing to be Removed	**692,852**	**-**	**-**	**-**
Total Existing to Remain	**864,995**	**121,846**	**79,152 (133 rooms)**	**-**
Proposed New Construction				
Phase I Development	440,000	-		-
Remaining Specific Plan Buildout	2,712,699	-		-
Total New Construction Proposed	**3,152,699**	**-**	**-**	**-**
Net Change (Total at Buildout – Existing)	**2,459,847**	**-**	**-**	**-**
Total at Buildout (Existing to Remain + Total New Construction)	**4,017,694**	**121,846**	**79,152 (133 rooms)**	**-**

Footnote: The Specific Plan would also allow for an up to 50,000-sf civic use to be developed on a 2.1 acre parcel bordering San Bruno Avenue West. If the civic use were to be developed, the overall capacity of the Project Site to accommodate new office uses would be reduced, and less office square footage would be developed. Thus, the civic use is not shown in the Maximum Office Scenario, which assumes that the maximum possible amount of office square footage is built. The potential civic use is discussed in this ~~Draft~~ EIR where relevant to the impact analysis (i.e., where the civic use might cause greater or different significant impacts than office use).

[a] sf = square feet

[b] du = dwelling unit

Table 2-4. Projected 2040 Development under the Maximum Housing Scenario

	Office (sf)[a]	Retail (sf)	Hotel (sf)	Residential (DU)[b]
Existing Building Area	1,557,847	121,846	79,152 (133 rooms)	-
Existing to be Removed				
Phase I Development ~~(2022)~~	138,524	-	-	-
Remaining Specific Plan Buildout	689,040	-	-	-
Total Existing to be Removed	**827,564**	**-**	**-**	**-**
Total Existing to Remain	**730,283**	**121,846**	**79,152 (133 rooms)**	**-**

	Office (sf) [a]	Retail (sf)	Hotel (sf)	Residential (DU) [b]
Proposed New Construction				
Phase I Development ~~(2022)~~	440,000	-	-	-
Remaining Specific Plan Buildout	2,330,460	-	-	573
Total New Construction Proposed	**2,770,460**	**-**	**-**	**573**
Net Change (Total at Buildout – Existing)	**1,942,896**	**-**	**-**	**573**
Total at Buildout (Existing to Remain + Total New Construction)	**3,500,743**	**121,846**	**79,152 (133 rooms)**	**573**

Footnote: The Specific Plan would also allow for an up to 50,000-sf civic use to be developed on a 2.1 acre parcel bordering San Bruno Avenue West. If the civic use were to be developed, the overall capacity of the Project Site to accommodate new residential uses would be reduced, and fewer than 573 housing units would be developed. Thus, the civic use is not shown in the Maximum Housing Scenario, which assumes that the maximum possible number of residential dwelling units is built. The potential civic use is discussed in this ~~Draft~~ EIR where relevant to the impact analysis.

[a] sf = square feet

[b] du = dwelling unit

2.6.2 Specific Plan Characteristics

2.6.2.1 Specific Plan Organization

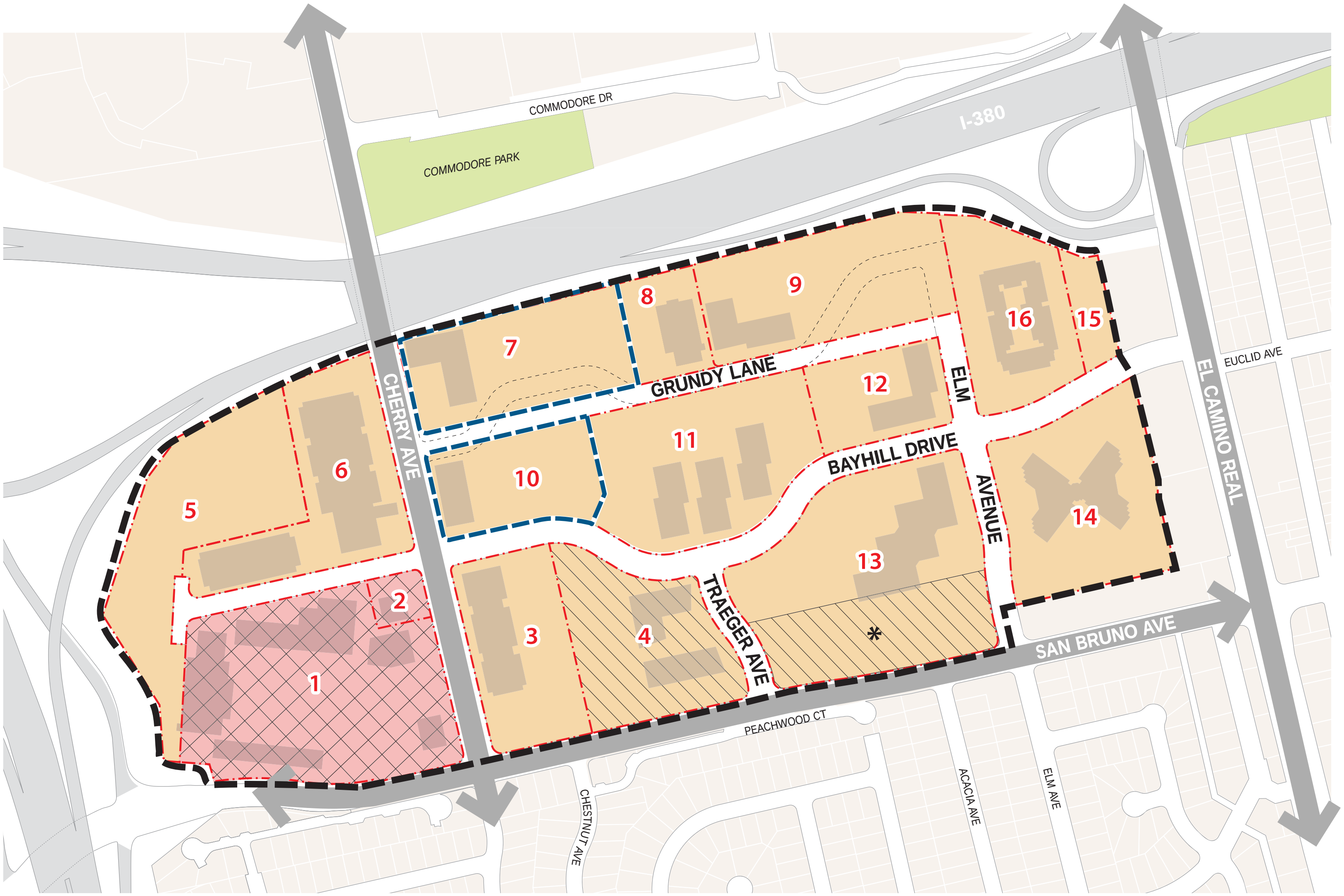
The Specific Plan, included in Appendix 2 of this ~~Draft~~ EIR, is organized as follows:

- **Chapter 1: Introduction** provides an overview of the Specific Plan background, describes the Project Site, and describes the vision, objectives, and guiding principles which shaped the Specific Plan. This section also describes the relationship to existing plans, and provides an overall explanation of the planning process.
- **Chapter 2: Land Use** describes proposed land use designations, permitted mixes, and development intensities. It describes the land use framework, including classifications, densities, and height increases allowable within the Project Site.
- **Chapter 3: Urban Design and Public Realm** provides a description of the Specific Plan's urban design framework, streetscapes, and open spaces.
- **Chapter 4: Access & Connectivity** discusses the street network, pedestrian and bicycle connectivity, as well as public transit connectivity (BART, Caltrain, and bus service). This section discusses private shuttles, automobile circulation, parking, and Transportation Demand Management (TDM).
- **Chapter 5: Infrastructure, Public Facilities & Services** discusses proposed improvements related to infrastructure and services meant to serve new development, including water distribution, wastewater, stormwater, and public services.
- **Chapter 6: Environmental Quality** addresses environmental and manmade hazards that may affect health and safety within the Project Site, including (but not limited to) noise, air quality, and hazards. The chapter identifies goals and policies related to these environmental resources.
- **Chapter 7: Implementation** discusses community benefits and the public improvements financing strategy, and identifies implementation actions, responsible agencies, timelines, phasing, and cost involved in the implementation of the Specific Plan.

2.6.2.2 Land Use Concept

As shown in Figure 2-9, with implementation of the Specific Plan, the Project Site would continue to be developed with mostly office uses. The primary changes to existing land use would be the introduction of housing and mixed-use overlay zones and a civic use location. The components of the proposed land use concept are described below. The land use regulations that would implement the land use concept are described in Section 2.6.2.4, Development Standards.

- **Increased Office Density.** Areas currently under the Regional Office land use designation would continue to be designated for office use. The allowable density of office uses would be increased to allow YouTube and other existing and future businesses to expand throughout the Project Site.
- **New Housing and Mixed-Use Overlay Zones.** The Project would establish new housing and mixed-use overlay zones in a total of 20.5 acres in the southern portion of the Project Site. Within the overlay zones, housing would be permitted allowing for the development of up to 573 multi-family residential units. A mix of uses could be developed as long as the maximum permitted development for a particular parcel is not exceeded. The housing overlay zone would encompass two areas south of Bayhill Drive including an approximately 4-acre area between Elm Avenue and Traeger Avenue and an approximately 6-acre site at 801-851 Traeger Avenue. The mixed-use overlay zone would cover an approximately 10.5-acre site at the Bayhill Shopping Center. At the mixed-use overlay zone, new residential development would be required to retain the approximately 122,000 square feet of existing retail use.
- **New Civic Use Location.** The Project would establish a 2.1-acre area fronting San Bruno Avenue West between Traeger Avenue and Elm Avenue where a civic use of up to 50,000 square feet would be permitted, subject to decision and direction by the City Council. At the time of this EIR, the new civic use most discussed by the City Council is the need for a new library; therefore, for EIR purposes it is assumed that the civic use would be a library. As discussed in Table 2-3 and 2-4, if the civic use were to be developed, it would reduce the overall housing or office capacity within the Project Site.
- **Preservation of Retail Uses.** The Bayhill Shopping Center would continue to be designated for commercial/retail use. As discussed above, the proposed mixed-use overlay zone would be added to this area, allowing for the potential future development of housing in addition to existing or new retail. New residential development permitted by the overlay would be required to retain the approximately 122,000 square feet of existing retail use. A small increase of retail space would also be permitted.
- **Underground Parking.** It is anticipated that development under the Specific Plan would result in the removal of surface parking lots throughout the Bayhill Office Park and construction of multiple subterranean parking garages to accommodate the increase in building density. The exact layout, locations, and sizes of future subterranean parking garages would depend on the needs of future tenants, market conditions and the City's parking standards. New subterranean garages that are assumed for purposes of this EIR analysis are described in Section 2.6.2.6, Transportation, Circulation, and Parking.



Bayhill Regional Office

Bayhill Neighborhood Center Commercial

* Civic use would be permitted within a 2.1-acre area on this block, fronting San Bruno Ave.

Bayhill Residential Overlay

Bayhill Mixed-Use Overlay

Project Site

Existing Building Footprint

Phase I Site

\# Parcel Number

0' 125' 250' 500'

Source: Dyett & Bhatia 2019.

ICF Graphics ... 00389.17 (2020-01-03) tm

Figure 2-9
Proposed Land Use Designations

2.6.2.3 Policies

The Specific Plan includes policies to help achieve its vision and goals. All future development within the Project Site, including the Phase I Development, would be required to demonstrate consistency with the Specific Plan policies. The policies are listed at the end of each Specific Plan chapter (refer to Appendix 2 of this ~~Draft~~ EIR).

2.6.2.4 Development Standards

Land Use

As shown in Figure 2-9, the Specific Plan establishes two land use designations and two overlay designations applied to various areas of the Project Site. The land use designations provide guidance on where particular land uses would be allowed within the Project Site and the development standards applicable to new development.

Land Use Designations

- **Bayhill Regional Office (BRO).** The BRO designation would permit administrative and professional offices located in a campus-style setting and hotels. Development would be designed to permit cohesive environments that encourage safe and pleasant pedestrian movement, connectivity, plazas, greenways, and cohesive streetscapes and landscaping, as articulated in policies and standards in the Specific Plan. Small convenience retail uses, fitness uses, personal services, eating establishments, event centers, utility buildings, and childcare facilities would be permitted as ancillary uses.

- **Bayhill Neighborhood Commercial (BNC)**. The BNC designation would permit convenience and retail commercial uses including, but not limited to: grocery and drug stores; eating establishments; apparel and accessory stores; personal and business services; fitness studios; professional and medical offices; childcare facilities; commercial recreation; and financial, insurance, and real estate offices.

Overlay Designations

Overlay designations permit additional uses while preserving the underlying land uses allowed. Two overlay designations are provided in the Specific Plan to encourage housing development. The location and extent of these overlays is shown on Figure 2-9.

- **Bayhill Residential Overlay (BR).** The Residential Overlay provides for residential development on two properties along San Bruno Avenue (801-851 Traeger Avenue and 1111 Bayhill Drive) located within the BRO designation as shown on Figure 2-9. Housing may be provided combined with uses permitted under the base BRO designation or as a stand-alone use (that is, by replacing office buildings existing as of 2019) as long as the overall allowable development is not exceeded. Up to 363 housing units are allowed in the Residential Overlay. If residential uses are developed in the Residential Overlay, the amount of office development allowed on these parcels (Parcels 4 and 13) would be reduced, as described below under *Development Intensity and Allocation*.

- **Bayhill Mixed-Use Overlay (BMU).** The Mixed-Use Overlay is in the BNC designation and includes the Bayhill Shopping Center at 851 Cherry Avenue and the adjacent commercial property at 899 Cherry Avenue. The Mixed-Use Overlay enables horizontal or vertical mixed-use residential and commercial development. The current square footage of neighborhood commercial uses must be maintained as a condition of any housing development. Housing may be provided at the ground level in standalone buildings or above commercial uses in a mixed-use building. Up to 210 housing units are permitted in the Mixed-Use Overlay.

Development Intensity and Allocation

The Specific Plan regulates density across the Project Site by allocating additional allowed square footage to the 16 individual parcels that comprise the Project Site, shown in Figure 2-9. The specific parcel allocations are shown in ~~Table 2-5.~~Table 2-2, Potential Development Allocation of the Bayhill Specific Plan, in the Specific Plan included in Appendix 2 of this EIR. As shown, the majority of the additional square footage is allocated to the 10 parcels currently owned by YouTube (Parcels 5 through 7 and 9 through 15, totaling 2,110,400 square feet of net new development). Up to 125,000 square feet is allocated to the parcel at 801-851 Traeger Avenue. The parcels at 850 Cherry Avenue, 1250 Grundy Lane, and 1050 Bayhill Drive are each allocated 5,000 square feet for small-scale building renovation/additions. The two parcels that comprise the Bayhill Shopping Center (851 and 899 Cherry Avenue) are also allocated a total of 5,000 square feet.

180,347 square feet of allowable new development are not allocated to any particular parcel. Priority for the use of this unallocated square footage is given to hotel and retail uses. Regional office is permitted to use this unallocated square footage, but as a lower priority use. For purposes of the EIR analysis, the unallocated square footage is included in the buildout projections presented in Tables 2-3 and 2-4 and is assumed to be office use. Refer also to the *Equivalency Program* discussion below for a description of how this unallocated square footage could be converted to retail and hotel use. In all cases, the maximum FAR of any individual parcel would be restricted to 2.0.

~~Table 2-5. Proposed Development Allocations by Parcel~~

~~Parcel No.~~	~~Address(es)~~	~~Parcel Size (sf)~~[a]	~~Existing Development (sf)~~	~~Proposed Land Use District~~	~~Potential Net New Development (sf)~~	~~Potential Total Development (sf)~~	~~Potential Residential (Units)~~
~~1~~	~~851 Cherry Ave.~~	~~432,420~~	~~117,843~~	~~BNC~~[b] ~~/ BMU~~[c]	~~5,000~~	~~126,848~~	~~210~~
~~2~~	~~899 Cherry Ave.~~	~~26,396~~	~~4,003~~	~~BNC / BMU~~			
~~3~~	~~850 Cherry Ave.~~	~~145,708~~	~~270,980~~	~~BRO~~[d]	~~5,000~~	~~275,980~~	
~~4~~	~~801-851 Traeger Ave.~~	~~264,366~~	~~134,712~~	~~BRO / BR~~[e]	~~125,000~~[f]	~~259,712~~	~~205~~
~~5~~	~~APN~~[j] ~~020-012-160~~	~~290,545~~	~~0~~	~~BRO~~	~~287,000~~	~~287,000~~[g]	
~~6~~	~~901 Cherry Ave.~~	~~240,277~~	~~195,000~~	~~BRO~~	~~5,000~~	~~200,000~~	
~~7~~[h]	~~1000 Cherry Ave.~~	~~213,626~~	~~94,465~~	~~BRO~~	~~248,800~~	~~342,465~~	
~~8~~	~~1250 Grundy Ln.~~	~~75,233~~	~~67,586~~	~~BRO~~	~~5,000~~	~~72,586~~	
~~9~~	~~1100 Grundy Ln.~~	~~271,353~~	~~101,123~~	~~BRO~~	~~328,877~~	~~430,000~~	
~~10~~[h]	~~900 Cherry Ave.~~	~~151,869~~	~~102,252~~	~~BRO~~	~~192,000~~	~~294,252~~	
~~11~~	~~1150-1250 Bayhill Dr.~~	~~283,070~~	~~138,524~~	~~BRO~~	~~301,476~~	~~440,000~~	
~~12~~	~~950 Elm Ave.~~	~~117,852~~	~~106,099~~	~~BRO~~	~~52,568~~	~~158,667~~	
~~13~~[i]	~~1111 Bayhill Dr.~~	~~426,711~~	~~206,137~~	~~BRO / BR~~	~~363,863~~[f]	~~570,000~~	~~158~~
~~14~~	~~999-1001 Bayhill Dr.~~	~~263,835~~	~~140,969~~	~~BRO~~	~~290,735~~	~~431,704~~	
~~15~~	~~APN~~[j] ~~020-011-370~~	~~37,873~~	~~0~~	~~BRO~~	~~40,510~~	~~40,510~~	
~~16~~	~~1050 Bayhill Dr.~~	~~196,978~~	~~79,152~~	~~BRO~~	~~5,000~~	~~84,152~~	
~~Total~~		**~~3,438,112~~**	**~~1,758,845~~**	**-**	**~~2,435,747~~**[k]	**~~4,013,874~~**	**~~573~~**

~~Parcel No.~~	~~Address(es)~~	~~Parcel Size (sf)~~[a]	~~Existing Develop-ment (sf)~~	~~Proposed Land Use District~~	~~Potential Net New Develop-ment (sf)~~	~~Potential Total Develop-ment (sf)~~	~~Potential Resi-dential (Units)~~

~~[a] sf = square feet~~

~~[b] BNC = Bayhill Neighborhood Commercial~~

~~[c] BMU = Bayhill Mixed-Use Overlay~~

~~[d] BRO = Bayhill Regional Office~~

~~[e] BR = Bayhill Residential Overlay~~

~~[f] If residential uses are developed in the BMU or BR, office allocations would be reduced on these parcels by a ratio of 1,267 office sf per dwelling unit in Parcel 4 and 1,454 office sf per dwelling unit in Parcel 13.~~

~~[g] As stipulated by Policy 2-3 in the Specific Plan, if the Project is developed under the existing Development Agreement, the net new square footage allowed on Parcel 5 would be reduced from 287,000 square feet by the number of square feet developed under the Development Agreement.~~

~~[h] Part of Phase I Site.~~

~~[i] A civic use of up to 50,000 sf would be permitted on a 2.1-acre area in this parcel. If a civic use is developed, the corresponding area allocated to regional office use would be reduced at a ratio of 1:1.~~

~~[j] APN = assessor's parcel number~~

~~[k] Does not include unallocated square footage. EIR analysis is conservatively based on totals shown in Tables 2-3 and 2-4, which include unallocated square footage.~~

Up to 210 residential dwelling units are allocated to Parcels 1 and 2 in the Bayhill Mixed-Use Overlay to encourage mixed-use redevelopment in the Bayhill Shopping Center, provided the existing amount of commercial space is not reduced. Up to 363 units are allocated to Parcels 4 and 13 in the Bayhill Residential Overlay to permit development of a residential frontage along San Bruno Avenue; land area dedicated to residential development would reduce the land area and corresponding amount of office development otherwise allocated to these parcels. Specifically, if residential uses are developed in the Bayhill Residential Overlay, the office allocation in Parcel 4 would be reduced by a ratio of 1,267 square feet of office uses per dwelling unit and the office allocation in Parcel 13 would be reduced by a ratio of 1,454 square feet of office uses per dwelling unit.

Transfer of Office Development

The Specific Plan allows for a transfer of up to 20 percent of the office square footage allowed for an individual parcel to another parcel in the Project Site that is under the same ownership to provide a public benefit that is otherwise not required, such as increasing the amount of publicly accessible open space, facilitating construction of housing, or accommodating civic facilities. In all cases, the receiving parcel cannot exceed a 2.0 FAR.

Equivalency Program

As discussed above, 180,347 square feet of the new office development included in the EIR buildout projections (Tables 2-3 and 2-4) are not allocated to any particular parcel. The Specific Plan allows for the conversion of this unallocated office square footage to hotel or retail uses at the following ratios:

- 190 square feet of retail commercial use per 1,000 square feet of regional office use
- 640 square feet of hotel use per 1,000 square feet of regional office use

The priority for this square footage is conversion to retail commercial and hotel use, though regional office use (which is evaluated in this EIR) is allowed as a lower priority. By way of example, if all of the unallocated

180,347 square feet were dedicated to retail use, 34,265 square feet of retail use could be developed. If all the unallocated square feet were dedicated to hotel use, 115,422 square feet of hotel use could be developed. Appendix 4 of this ~~Draft~~ EIR provides an analysis of the equivalency exchanges and demonstrates that the potential environmental impacts of the equivalency exchanges would be within the scope of this EIR analysis.

2.6.2.5 Urban Design and Public Realm

Chapter 3 of the Specific Plan includes Urban Design Policies to achieve a consistent urban design vision for buildings and pedestrian spaces. The Specific Plan also contains Urban Design Guidelines for building design and landscape design that are discretionary yet strongly recommended. Together, the policies and guidelines serve as criteria for design review by City staff, the Architectural Review Committee, Planning Commission, and City Council. These policies and guidelines are summarized below.

Building Heights, Massing and Setbacks

The Specific Plan maintains existing building height restrictions on the Project Site pursuant to Ordinance 1284 (i.e., 50 feet or three stories maximum). Building massing would respond to site context, accenting main building entrances, adjacent intersections, greenways, and/or other elements of the public realm. New buildings would not be permitted to have a bulky, box-like appearance. Architectural design would compose building massing to express site context, accenting main building entrances, building corners, the greenway, and/or other open spaces. No more than ~~75~~ 50 percent of the length of a building façade would be unbroken by a change in massing. Buildings would be oriented to frame streets as public spaces, with main building entrances located on street frontages and first floors close in elevation to adjacent public sidewalk grades. The Specific Plan would also establish setback requirements for new development within the Project Site. The setbacks vary by land use designation and street.

Building Design

The style of building for all permitted land uses would generally be contemporary. Buildings would exhibit variety in architectural design and materials, and relate to one another and the surrounding building context. New buildings would be required to provide human scale and visual interest at the pedestrian level; be complementary to one another in terms of overall form and massing, fenestration, rooflines, and other major architectural elements; and exhibit strong three-dimensional façades. Primary entrances would be prominent and scaled to the street and/or open spaces they face. Blank, windowless walls would be prohibited along street frontages. Interior and exterior lighting would be designed to direct and/or shield light fixtures to prevent night sky light pollution, glare, and light spillage onto adjacent buildings and properties. The Building Design Guidelines provide additional direction regarding architectural design and materials.

Pedestrian Realm and Open Space

The quality of streets as public spaces, and their role in creating an attractive, interconnected public realm that encourages walking and bicycling, is a primary focus of the Specific Plan. To achieve this objective, all streets within the Project Site are planned to contribute to an enhanced pedestrian environment with curbside street trees, pedestrian-oriented lighting, curbside planting strips, and repaved 8-foot-wide sidewalks (with exceptions due to existing building configurations). The Specific Plan emphasizes high-quality design approaches to landscaping along streets.

Figure 2-10 depicts the Specific Plan's public realm concept. As shown, portions of the Project Site along Bayhill Drive and Traeger and Elm Avenues would be developed with linear open space "greenways" which are a defining urban design element. These greenway spaces are located on private land and would be privately maintained but publicly accessible and designed to create a safe, convenient, and comfortable open space experience for employees and community members to enjoy.

The Specific Plan promotes a variety of open space types. Some would be publicly accessible, such as greenways. As discussed below in Section 2.6.3, *Phase I Characteristics*, "Cherry Avenue Plaza", a publicly-accessible, privately owned and maintained open space would be located at Cherry Avenue and Grundy Lane. Other open spaces, such as internal building courtyards and/or terraces would be private.

2.6.2.6 Transportation, Circulation, and Parking

Under the policies of the Specific Plan, the large parking lots that line most of the streets within the Project Site would be replaced over time by new office buildings with underground parking, making walking and biking a more accessible experience. The Specific Plan would also require transportation improvements to make pedestrian and bicycle travel more efficient and accessible.

As discussed below in Section 2.6.3, *Phase I Characteristics*, as part of the Phase I Development, Grundy Lane would be straightened and an enhanced pedestrian streetscape would be installed. Other than the realignment of Grundy Lane, the Project would maintain the current street alignment throughout the Project Site. Bayhill Drive would be improved for bicycle and pedestrian connectivity with no changes to its current alignment. To accommodate the proposed bicycle and pedestrian improvements, the number of travel lanes on Bayhill Drive between Cherry Avenue and Elm Avenue would be reduced from four to two, with a third median turn lane. In addition to street-level improvements, multiple above-ground pedestrian bridges and below-ground pedestrian and vehicle tunnels are planned between office buildings. These bridges and tunnels would increase internal pedestrian circulation options for employees, but will not be accessible to the general public.

The Project also proposes numerous improvements to the bicycle circulation system including new Class II striping bicycle lanes along portions of Cherry Avenue, Bayhill Drive, and San Bruno Avenue. In addition, the Project proposes to include a new Class III bicycle facility along portions of Cherry Avenue, Elm Avenue, and along all of Grundy Lane. The proposed bikeway network is designed to be consistent with the intent of the Walk 'n Bike Plan, providing direct and efficient access within and to the Project Site. Sidewalks and pedestrian paths are provided along most of the roadways near or adjacent to the Project Site.

The following discussion summarizes the proposed vehicle, pedestrian, and bicycle transportation improvements along each roadway within the Project Site. The proposed pedestrian and bicycle circulation plans are also shown in Figures 3.10-3 and 3.10-4, respectively, in Section 3.10, *Transportation*, of this ~~Draft~~ EIR.

- **Bayhill Drive.** The Bayhill Drive right-of-way would be reduced from four lanes to two lanes (one-lane in each direction) between Cherry Avenue and Elm Avenue. The landscaped median island and center turn lane would be retained. However, the median island would be narrowed slightly to accommodate new Class II bike lanes. Widened sidewalks, curbside planters, pedestrian-oriented lighting and additional landscaping would be provided along the roadway frontages.

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Figure 2-10
Proposed Public Realm Concept

- **Grundy Lane.** As part of the Phase I Development described in Section 2.6.3, the Grundy Lane right-of-way would be straightened between Cherry Avenue and Elm Avenue. The realigned roadway would facilitate development of adjacent sites, and related improvements would include bicycle sharrows (i.e., shared lane markers), a curbside planter, widened sidewalks, and pedestrian-oriented lighting. Curbside parking would remain along the northern frontage.
- **Cherry Avenue.** The Cherry Avenue right-of-way would be modified to include improved pedestrian crossings with high visibility crosswalks and pedestrian refuges, bike ways, pedestrian-oriented lighting, and curbside planters with trees and other landscaping to buffer pedestrians from passing traffic. The segment south of Bayhill Drive would include Class II bike lanes. The southbound side of the segment between Bayhill Drive and Grundy Lane would include bicycle sharrows and a shuttle bus pullout in front of 901 Cherry Avenue, while the northbound side would include a Class II bicycle lane, loading zones, and a transit bus stop. The segment north of Grundy Lane would include bicycle sharrows and curbside parking along both sides
- **Traeger Avenue.** The Traeger Avenue right-of-way would be reconfigured to include improved pedestrian crossings with high visibility crosswalks and pedestrian refuges. The northbound roadway between San Bruno Avenue and Bayhill Drive would retain two lanes in each direction.. The modified roadway would include bicycle sharrows in both directions.
- **San Bruno Avenue.** The San Bruno Avenue right-of-way would be modified to accommodate new bike lanes. The landscaped median island and median left-turn lane would be retained. However, the median island would be narrowed slightly to accommodate the bike lanes, with pedestrian refuges and high visibility crosswalks at intersections. A land dedication would be required along the northerly frontage to include a curbside planter, widened sidewalk, and pedestrian-oriented lighting.
- **Elm Avenue.** Elm Avenue, north of Bayhill Drive, would remain one lane in each direction and would terminate at Grundy Lane. <u>A</u> <u>s</u>huttle loading zone would be located on ~~either~~ <u>the</u> west side of Elm Avenue just north of the Bayhill Drive intersection. Elm Avenue, south of Bayhill Drive, would be reduced to one lane in each direction with left turn pockets at the San Bruno Avenue and Bayhill Drive intersections. Widened sidewalks, curbside planters, pedestrian-oriented lighting, and additional landscaping would be provided along the whole roadway frontage. Class II bicycle lanes would be provided between San Bruno Avenue and Bayhill Drive. Class III bicycle sharrows would continue north of Bayhill Drive to connect with the sharrows on Grundy Lane.

To facilitate the flow of traffic in the Project Site vicinity, the Project proposes to install a new traffic signal at the intersection of Traeger Avenue and San Bruno Avenue. The Project would also optimize signal timings based on additional traffic volumes at the following intersections: Cherry Avenue/San Bruno Avenue, El Camino Real/San Bruno Avenue, I-380 Westbound/El Camino Real, and I-280 Southbound Ramp/Sneath, San Bruno Avenue/Elm Avenue, El Camino Real/Bayhill Drive, Cherry Avenue/Bayhill Drive, and I-380 Eastbound/El Camino Real, San Bruno Avenue.

As discussed below in Section 2.6.3, *Phase I Characteristics*, as part of the Phase I Development, an off-street private multi-modal center would be constructed to accommodate employer shuttles in a dedicated area outside the public right-of-way. The proposed bus/shuttle hub would be located in the site bounded by Grundy Lane, Elm Avenue, and Bayhill Drive. The proposed multi-modal center would accommodate private employer shuttles. Public transit routes, such as SamTrans and the local BART/Caltrain shuttle would continue to use on-street transit stops located in the public right-of-way. Two private shuttle/bus stops would be located on Elm and Cherry Avenues in addition to the multi-modal center.

The Specific Plan would authorize replacement of existing surface parking lots with subterranean parking garages to allow for more efficient use of developable land in the Project Site. The exact layout, locations, and sizes of future subterranean parking garages would depend on the needs of future tenants as well as market conditions. For purposes of the EIR analysis, up to 11 new subterranean parking garages with depths ranging from approximately 29 feet to 58 feet below ground surface (bgs) are assumed, as shown in Figure 2-11.

The Specific Plan also includes parking standards applicable to all types of development anticipated within the Project Site. The proposed parking standards are the same as those in the San Bruno Municipal Code (3 parking spaces per 1,000 square feet of office space), with the ability to reduce the parking supply for future phases based on parking occupancy data or by paying an in-lieu parking fee. For details on parking standards within the Project Site, refer to Chapter 12.100 (Off-street Parking and Loading) of the San Bruno Municipal Code and the Parking Design Standards Resolution.

2.6.2.7 Utilities

The proposed Specific Plan identifies the following improvements to the public utility infrastructure systems that serve the Project Site as being necessary to serve the Project, and includes a financing plan to implement the identified improvements. These improvements are evaluated as part of the Project in this ~~Draft~~ EIR.

Water

The Project Site is located in Pressure Zone 3/5 of the City's water system and is served primarily from connections to the San Francisco Public Utilities Commission's water system via a local network of distribution lines ranging from 6 inches to 14 inches in diameter. As part of the Phase I Development, the Project would abandon an existing 8-inch pipeline in Elm Avenue (north of Bayhill Drive), abandon and replace an existing 8-inch pipeline in Grundy Lane, and abandon and replace a section of an existing 10-inch pipeline in Bayhill Drive. The pipeline in Grundy Lane would be replaced with a new 10-inch pipeline following the new Grundy Lane realignment, and the pipeline section in Bayhill Drive would be replaced with a new 12-inch pipeline. The proposed pipelines would tie into the existing water system. Ten new fire hydrants would also be installed as part of the Phase I Development, some of which would replace existing fire hydrants. The final fire hydrant count and layout would be determined by the Fire Marshall. Aside from the proposed Phase I Development improvements, the Project would also require the installation of a new 10-inch pipeline in Grundy Lane and along Elm Avenue to connect to Bayhill Drive prior to Project build-out, extending east and south from the new 10-inch pipeline that would be installed in Grundy Lane during the Phase I Development. The proposed improvements to the water system are shown in Figure 3.11-1 in Section 3.11, *Utilities and Service Systems*, of this ~~Draft~~ EIR.

Wastewater

The Project Site is served by the City's sanitary sewer system via a local system of small diameter sewers located along Cherry Avenue, Bayhill Drive, and Grundy Lane, and a major (18- to 24-inch) trunk sewer that runs through the area from San Bruno Avenue West along Traeger Avenue, Bayhill Drive, across El Camino Real and I-380 and through the Tanforan Mall to Sneath Lane and then east on Sneath Lane and Tanforan Avenue. Effluent is transported to the Water Quality Control Plant located in and operated by the City of South San Francisco (San Bruno is a partial owner).

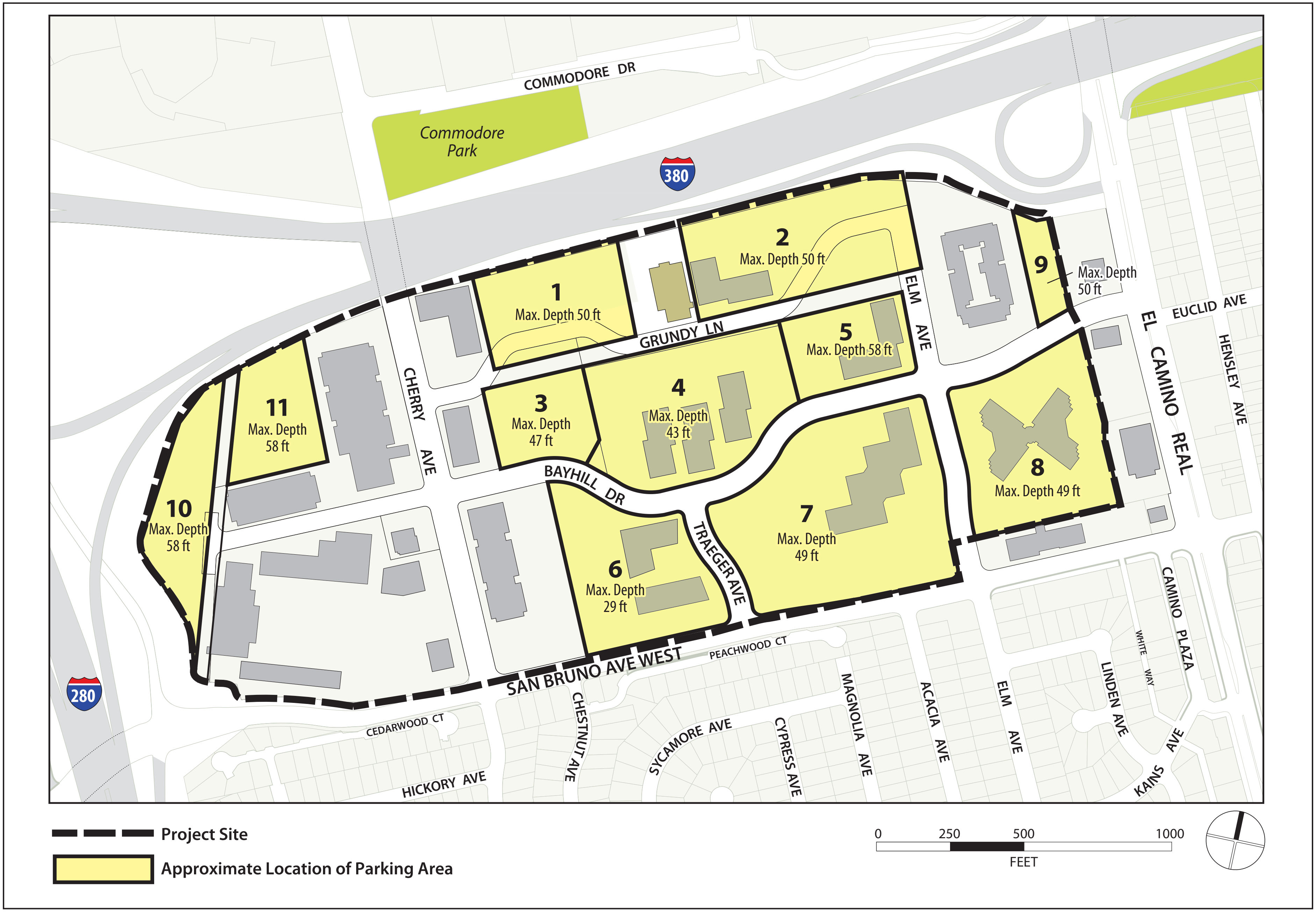

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Figure 2-11
Potential Subterranean Parking Areas

As part of the Phase I Development, discussed below, the Project would install a new 10-inch sewer line along the realigned Grundy Lane. After the Phase I Development, a new 10-inch extension from the Grundy Lane sewer to Elm Avenue would be constructed. The proposed improvements to the wastewater system are shown in Figure 3.11-2 in Section 3.11, *Utilities and Service Systems*, of this ~~Draft~~ EIR.

Stormwater

Existing storm drain pipes serving the Project Site include storm pipes up to 48 inches in diameter (Kimley Horn 2020). The pipelines connect to a 72-inch diameter trunk line located on the eastern portion of the Project Site that serves as the backbone to the City's 1,415-acre "Watershed A" pipe network. The Project would relocate the existing 72-inch trunk line to maximize the developable area on the parcels. To address existing capacity deficiencies in and downstream of the 72-inch trunk line, the Project would either construct a parallel 72-inch diameter pipeline or replace the existing 72-inch pipeline with a larger, single conveyance pipeline. As part of the Phase I Development, discussed below, a public storm drain pipeline, transitioning from 24-inch diameter to 30-inch diameter as the flow moves downstream, would be installed in the realigned Grundy Lane along with private stormwater systems. The Phase I Development also includes "C.3" post-construction water quality treatment measures including bioretention areas, flow-through planters, green-roofs, and pervious pavements that drain to native soil, and "C.10" trash load reduction measures. Additionally, new development under the Specific Plan would not be permitted to result in a net increase in runoff during construction or operation in accordance with Specific Plan policies. The proposed improvements to the stormwater system are shown in Figure 3.11-3 in Section 3.11, *Utilities and Service Systems*, of this ~~Draft~~ EIR.

2.6.2.8 Environmental Sustainability Features

The Project would incorporate all applicable City- and State-mandated sustainability features, including Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, and applicable building requirements set forth in the 2019 California Green Building Standards Code, commonly referred to as CALGreen.

The Specific Plan would also encourage the incorporation of a variety of sustainability features in all future development projects within the Project Site, including the Phase I Development. These include maximizing natural cooling and passive solar heating through building orientation, designing buildings to incorporate natural light and ventilation, using sustainable building and paving materials, and promoting recycling and composting programs.

2.6.2.9 Transportation Demand Management

Transportation Demand Management (TDM) refers to policies and strategies that aim to reduce peak period travel demand, particularly for single occupant vehicles, or to redistribute that demand to off-peak times. TDM strategies fall into three main categories: built environment factors, services and programs, and education and outreach. The effectiveness of an individual TDM strategy largely hinges upon the particular travel market it is targeting, how time-competitive it is with private auto travel, and the degree to which it makes choosing non-auto travel easy.

The largest employers at Bayhill, including YouTube and Walmart, already have robust TDM programs that include long-haul commuter shuttles, first-mile/last-mile shuttles to BART and Caltrain, bicycle parking, showers, and carshare. While not part of the Project, these existing TDM programs would likely continue throughout the life of the Project as long as these tenants remain within the Project Site. To ensure that all future tenants implement TDM strategies, the Specific Plan includes policies that require applicants of all new development to implement a TDM program or join a transportation management association (TMA) to reduce single occupancy travel to the Plan Area. All TDM programs are required to include a designated TDM coordinator to facilitate programming and monitoring activities, and program coordinators are required to conduct annual travel surveys to evaluate program effectiveness and report their results to the City. With regard to YouTube's TDM program, which would be implemented for the Phase I Development, refer to Section 2.6.3.10, below.

2.6.2.10 Phasing and Construction of YouTube Expansion

As previously discussed, YouTube owns ten parcels within the Project Site, comprising the majority of the Project Site. YouTube has submitted information on its plans for expanding across the nine parcels east of Cherry Avenue over a 15-year period to address the company's future employment needs. Most of the buildout under the Specific Plan would consist of YouTube's long-term expansion plan, which is anticipated to occur in five phases as described below and shown in Figure 2-12. As described below, the anticipated buildout date for the Phase I Development is 2025. Phases II through V would be constructed after the Phase I Development and could be constructed in any order and in subparts (i.e., Phases 5N, 5S, 5E). Full buildout of the Project is anticipated to occur by 2040.

- **Phase I**. The Phase I Development is analyzed at a project level in this EIR. Refer to Section 2.6.3, *Phase I Development Characteristics,* for a detailed explanation. The anticipated buildout date for the Phase I Development is in ~~2022~~ 2025.
- **Phase II**. Phase II would occur on the center most parcel in the Project Site, directly south of Grundy Lane and north of Traeger Avenue. ~~Phase II has an anticipated buildout date of 2025.~~ The three buildings on this parcel would be demolished as a part of the Phase I Development.
- **Phase III**. Phase III would occur on the parcel west of Elm Avenue, south of Bayhill Drive, north of San Bruno Avenue West, and East of Traeger Avenue. It is expected that the building at 1111 Bayhill Drive would be demolished during this phase. ~~Phase III has an anticipated buildout date of 2027.~~
- **Phase IV**. Phase IV would occur on the parcel north of Grundy Lane and west of Elm Avenue. It is expected that the building at 1100 Grundy Lane would be demolished during this phase. ~~Phase IV has an anticipated buildout date of 2032.~~
- **Phase V**. Phase V would occur on three separate parcels: one directly east of the existing hotel and west of the parcels bordering El Camino Real; one at the southeastern most corner of the Project Site; and one bordering Elm Avenue on the west and directly north of Bayhill Drive. It is expected that the buildings at 999-1001 Bayhill Drive and 950 Elm would be demolished during this phase. ~~The anticipated buildout date for Phase V is 2035.~~

An existing Development Agreement applies to the vacant hillside Parcel (APN 020-012-160), adjacent to 901 Cherry Avenue, which is owned by YouTube. The Development Agreement authorizes 287,000 square feet of office space to be developed consistent with an approved EIR and approved entitlements. The project is included in the cumulative projects list used in this EIR's cumulative impact analysis (refer to Table 3.0-1 in Chapter 3, *Environmental Impact Analysis*). However, should this development occur after ~~February~~ August 2021, it would be regulated by the Specific Plan. Accordingly, the Specific Plan incorporates this amount of development in its policy framework, and the development is also reflected in the buildout projections in this EIR (see Tables 2-3 and 2-4). YouTube has not submitted a phasing plan for this site if development occurs after ~~February~~ August 2021. Should development proceed prior to expiration of the Development Agreement in ~~February~~ August 2021, the regulations of the Specific Plan and mitigations included in this EIR would not apply and the maximum remaining permitted density on Parcel 5 would be reduced from 287,000 square feet by the number of square feet developed under the Development Agreement.

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Figure 2-12
Proposed YouTube Expansion Phases

Buildout under the Specific Plan could also include new office development on the parcels not owned by YouTube, housing development within the housing and mixed-use overlay zones, and circulation, infrastructure, and landscape/streetscape improvements throughout the Project Site. New retail and/or hotel uses would be allowed under the equivalency program (described above). The sequence and timing of additional development that could occur under the Specific Plan would be driven by market conditions and is unknown at this time. For EIR purposes, it is assumed that full buildout of the Project would occur by 2040, and that YouTube-related development would be distributed across Phases II through V, concluding by 2035.

While the construction characteristics of individual projects would vary; overall, buildout of the Project would involve demolition, grading, excavation, and construction activities to build new structures and subterranean parking garages, and install new roadway, infrastructure, and landscaping improvements. Heavy construction equipment including cranes, bulldozers, excavators, scrapers, and loaders would be used. The number of construction workers on the Project Site would vary, ranging from approximately 40 to 550 on any given day, according to the stage of construction and whether or not construction phases are undertaken concurrently.

Demolition

It is anticipated that Project buildout would result in the demolition of seven existing buildings on the Project Site, comprising between 692,852–827,564 square feet of office space, depending on the development scenario. Table 2-5~~6~~ lists the buildings that would be demolished under the Project. The three buildings located on the “Lakes” parcel (APN 020-015-030) would be demolished as part of the Phase I Development described below in Section 2.6.3.

Table 2-5~~6~~. Buildings Proposed to be Demolished

Building	APN[a]	SF[b]
1100 Grundy Lane	020-011-290	101,123
1150, 1200, and 1250 Bayhill Drive[c]	020-015-030	138,524
950 Elm Avenue	020-015-030	106,099
1111 Bayhill Drive	020-018-010	206,137
999-1001 Bayhill Drive	020-019-070	140,969
851 Traegar Ave, 801 Traegar Ave.[d]	020-017-020	134,712
Total Demolition (Maximum Housing Scenario)		**827,564**
Total Demolition (Maximum Office Scenario)		**692,852**

[a] APN = assessor's parcel number
[b] sf = square feet
[c] “Lakes” Parcel includes three buildings.
[d] Demolished only if housing is constructed within the housing overlay zone.

Grading and Excavation

The Project would require major grading and excavation to install new subterranean parking garages. For EIR purposes, up to 11 new subterranean parking garages with depths ranging from approximately 29 feet to 58 feet bgs are assumed (see Figure 2-11). An estimated total of 4,880,616 cubic yards of soil could be exported from the Project Site throughout the 20-year construction period, as shown in Table 2-6~~7~~. Construction dewatering would not be required for the Phase I Development, but may be required for subsequent development. All subterranean parking garages would be waterproofed and would not require permanent dewatering systems.

Table 2-6~~7~~. Cubic Yards of Excavated Soil by Phase

Garage No.[a]	Phase	Total Cubic Yards for Disposal (cy)	Max Depth NAVD88[b,c] (feet)	Max Depth Below Grade (bgs)
1, 3	I	935,395	59 ~~61~~	55
4	II	581,741	37	43
7	III	712,807	21	49
2	IV	684,793	21	50
5, 8, 9	V	856,693	5	58
6	n/a	238,946	n/a	29
10	n/a	453,436	n/a	58
11	n/a	416,805	n/a	58
Total		**4,880,616**		

[a] See Figure 2-11 for subterranean garage locations.

[b] The North American Vertical Datum of 1988 (NAVD 88) is the vertical datum for orthometric heights established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988.

[c] Max depth is measured to finished floor of lowest parking garage level. In the event of a conflict between the NAV88 elevations and bgs calculations, the NAV88 elevations control.

2.6.3 Phase I Development Characteristics

As previously discussed, the Phase I Development is the first phase of YouTube's 15-year expansion plan and has been designed based on concept plans presented to the City Council in December, 2018, and in consultation with City staff as the draft Specific Plan evolved over the subsequent year. The proposed site plan for the Phase I Development is provided in Figure 2-13. A conceptual aerial view is provided in Figure 2-14. As shown, the Phase I Development would construct two irregular-shaped buildings adjacent to the existing buildings in the Phase I Site (North Building and South Building). Both buildings would be three-story structures built over three-level subterranean parking garages connected through a below-grade tunnel extending underneath Grundy Lane. The North Building would be constructed on the adjacent parking lot for 1000 Cherry Avenue (APN 020-011-230), and the South Building would be constructed on the adjacent parking lot for 900 Cherry Avenue (APN 020-015-020).

The Phase I Development also includes supporting development outside the Phase I Site but within the Project Site, including a new off-street private multi-modal center on the parcel at 950 Elm Avenue, realignment of Grundy Lane, vacation of the north end of Elm Avenue, and demolition of the existing buildings located at 1150–1250 Bayhill Drive for temporary parking (and future development of the Phase II buildings). The locations of the Phase I Development off-site improvements are shown in Figure 2-15.

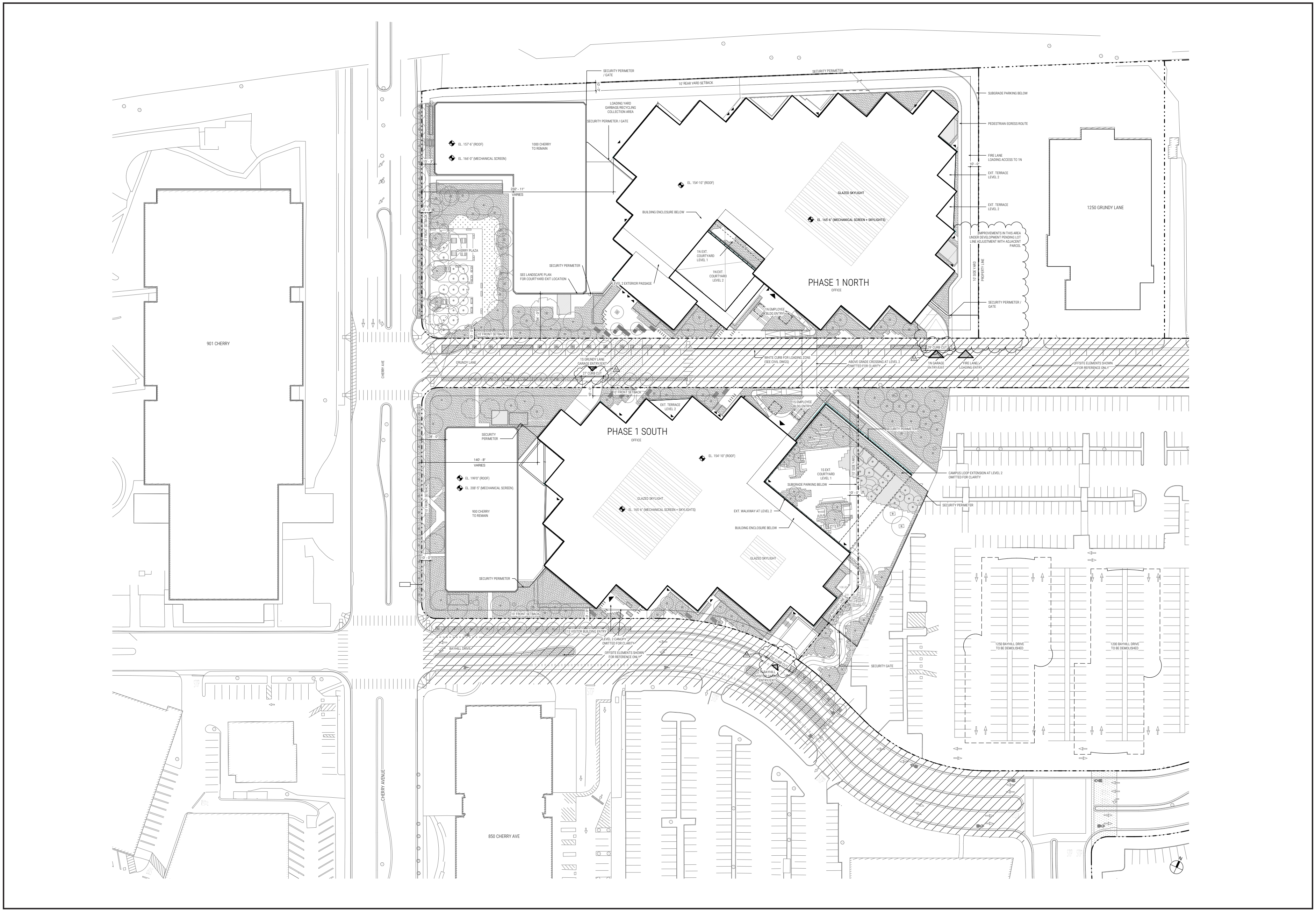

Figure 2-13
Phase I Development Proposed Site Plan

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Figure 2-14
Aerial View of the Phase I Development

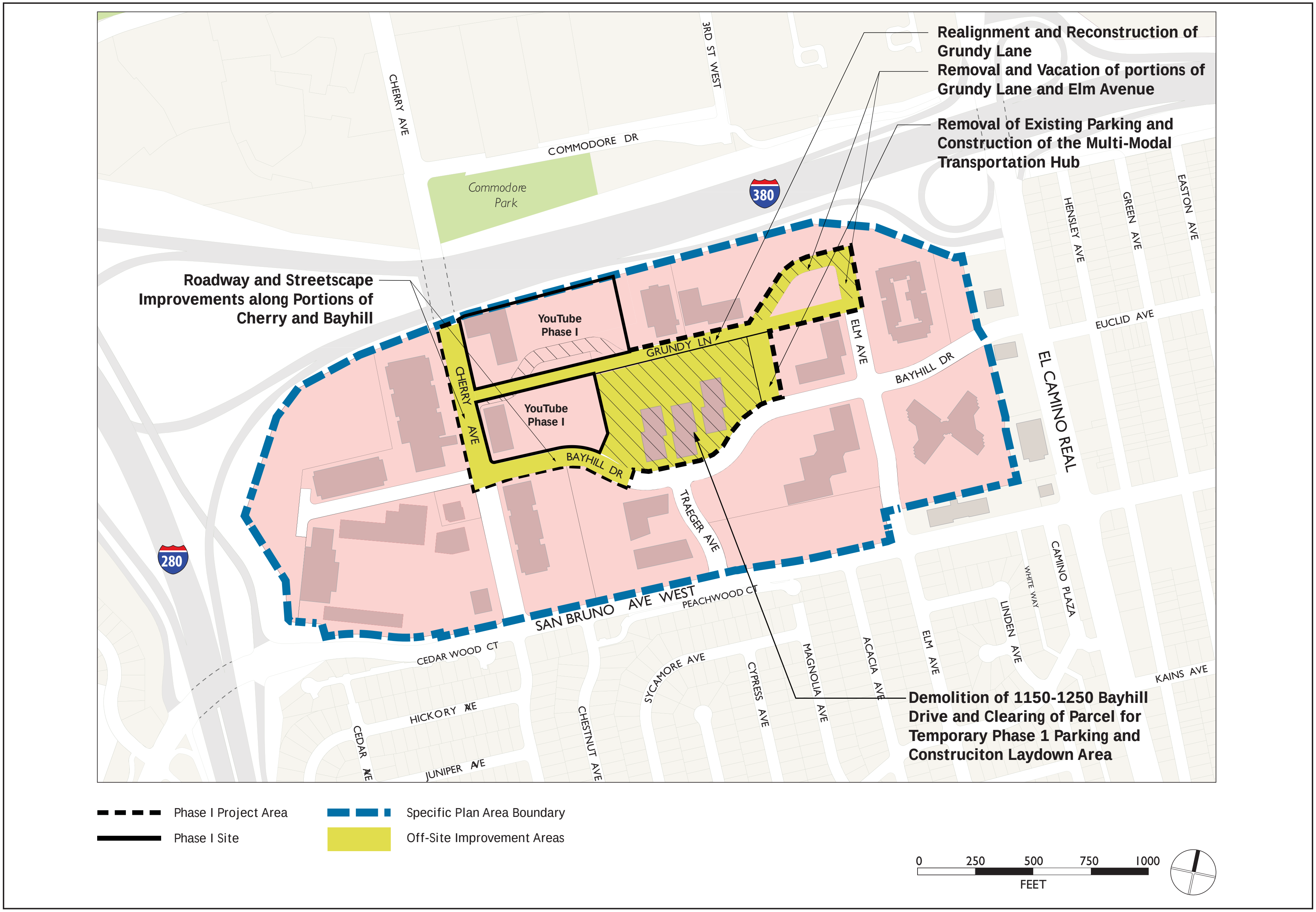

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Figure 2-15
Phase I Development Off-Site Improvements

2.6.3.1 Proposed Use and Building Design

The Phase I Development would construct approximately 440,000 square feet of office and accessory space with an FAR on the two parcels of approximately 1.6 and 1.94. Each of the two buildings would be three stories, reaching a maximum height of 50 feet. The Phase I Development buildings would be designed to allow for varied setbacks and visual interest along the street. The proposed setbacks at each of the building edges would range from 10 feet to 45 feet from the sidewalk. The buildings would be accessed from the street by pedestrians from landscaped small entry plazas fronting Grundy Lane and Bayhill Drive. The buildings would be connected via an elevated private pedestrian bridge over Grundy Lane that connects private employee terraces on the second floor of each of the new buildings. Table 2-7~~8~~ below details the design parameters for each of the Phase I Development buildings. Conceptual renderings of the Phase I Development are included in Figure 2-16.

Table 2-7~~8~~. Phase I Development Project Building Design Parameters

Building	Building Levels	Height (feet)	Setback (feet)	Area (square feet)
North Building	3	50	10-30	248,000
South Building	3	50	10-50	192,000

North Building

The North Building would consist of approximately 248,000 square feet of office space and would be constructed on the parking lot to the east of the existing building at 1000 Cherry Avenue. The new building together with 1000 Cherry Avenue would have an FAR of approximately 1.6 and a proposed overall lot coverage of approximately 61 percent. As shown in Figure 2-17, the North Building would be three stories tall and would be constructed over a new three-level, subterranean parking garage. The first floor (ground level) of the North Building would consist of office space and office support uses, including an internal conference space. The second level would consist of office space and office support uses, including a cafeteria and loading dock, as well as access to an exterior employee terrace and elevated pedestrian bridge. The terrace would include an outdoor seating area adjacent to the cafeteria. The pedestrian bridge would provide employee access between the North Building and South Building over Grundy Lane, and a terrace adjacent to the pedestrian bridge would also include an outdoor seating area and landscaping. Portions of this pedestrian bridge connection would be uncovered with other portions shaded by canopies. The third floor would consist of office space and office support uses. Mechanical equipment would be located on the roof, as well as at the three subgrade parking levels. The North Building roof would include skylights to provide natural daylighting, photovoltaics to produce green electricity, and a vegetative area (i.e., green roof) to improve stormwater retention and quality. The setbacks of the building would vary due to the irregular-plan. Aside from the above-ground pedestrian bridge that would span Grundy Lane, the setbacks would measure between approximately 10 feet to 30 feet on the north and south sides to the property lines, and approximately 31 to 36 feet on the west to the 1000 Cherry Avenue building. The eastern edge of the building would be set back approximately 24 to 29 feet from the lot line.

View toward Phase I north from I-380

View east on Bayhill Drive from Cherry Avenue

View west on Bayhill Drive toward Cherry Avenue

View of the Phase I South Entry Plaza

View east on Grundy Lane from Cherry Avenue

View west on Grundy Lane toward Cherry Avenue

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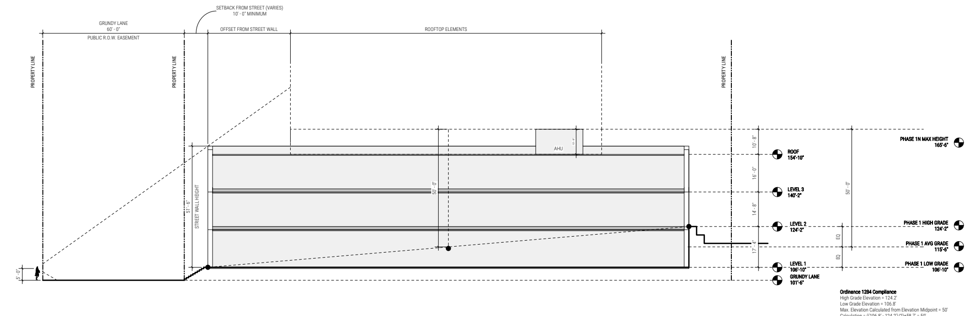
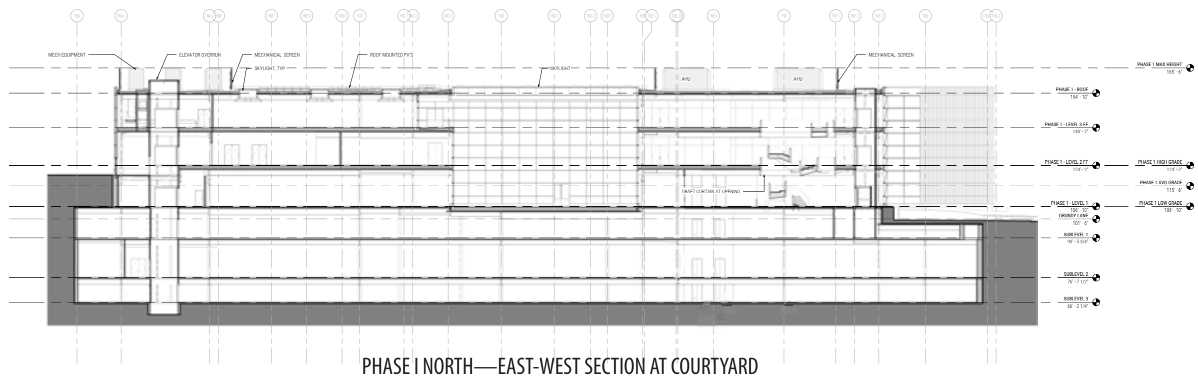
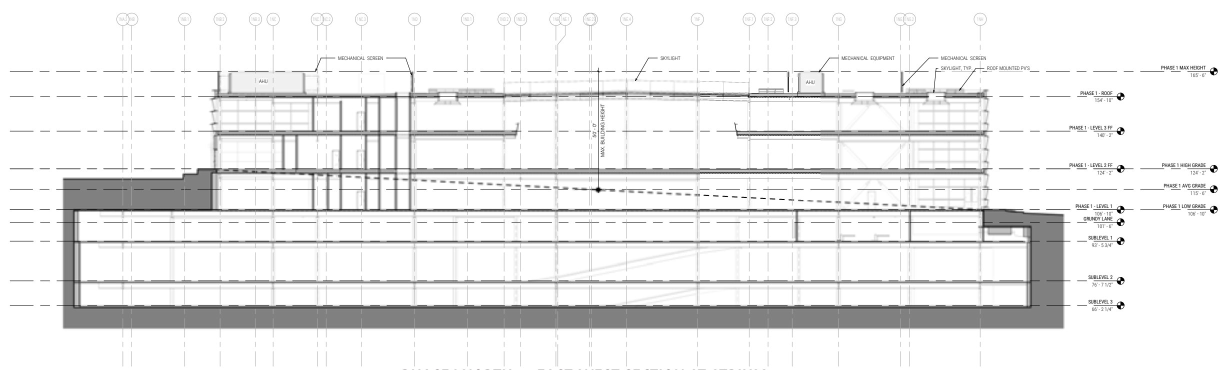
Figure 2-16
Conceptual Renderings of Phase I Development



PHASE I NORTH—HEIGHT CALCULATION



PHASE I NORTH—EAST-WEST SECTION AT COURTYARD



PHASE I NORTH—EAST-WEST SECTION AT ATRIUM

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Figure 2-17
Phase I Development North Building Cross Sections

South Building

The South Building would consist of approximately 192,000 square feet of office space and would be constructed on the parking lot to the east of the existing building at 900 Cherry Avenue. The new building together with 900 Cherry Avenue would have a FAR of approximately 1.94 and a proposed lot coverage of approximately 63 percent. As shown in Figure 2-18, the South Building would be three stories tall and, like the North Building, would be constructed over a new three-level, subterranean parking garage. The first floor (ground level) of the South Building would consist of office space and office support uses, including an employee event center and a cafeteria. A landscaped, exterior employee terrace with outdoor seating would be located adjacent to the cafeteria. The second level would consist of office space and office support uses, and would include access to the previously described elevated pedestrian bridge that would provide access between the proposed North Building and South Building over Grundy Lane. Terraces adjacent to the pedestrian walkway would contain outdoor seating areas. The third floor would consist of office space and office support uses. Mechanical equipment would be located on the roof, as well as at the three subgrade parking levels. The South Building roof would include skylights on the roof to provide natural daylighting, photovoltaics to produce green electricity, and a vegetative area (i.e., green roof) to improvement stormwater retention and quality. Similar to the North Building, the setbacks of the South Building would vary. Aside from the pedestrian bridge that would span Grundy Lane, the setbacks would measure between approximately 10 feet to 45 feet on the north and south sides to the property lines, and approximately 23 to 32 feet on the west to the 900 Cherry Avenue building. The eastern edge of the building setback would vary from approximately 10 to 74 feet from the lot line. The adjoining parcel is owned by YouTube.

2.6.3.2 Landscape and Trees

The Phase I Development landscape plan would be designed to be an extension of the proposed workplace, creating publicly visible, frontage landscaped spaces and private internal courtyard spaces which would provide protected places for work-related activities. Proposed landscape areas, which are shaded in gray in Figure 2-13, would include both hard- and softscape elements. As the majority of the onsite landscaping would be built on top of a sub-grade parking structure, the planting areas, paving, and topography would be designed so as to appear natural with at grade landscaping while not adversely impacting the building's structure and waterproofing. The design would also reduce the overall amount of irrigation water needed, providing drought-tolerant planting, and utilizing a low water consumption irrigation system. The landscape design would also reduce the heat-island effect by requiring low-reflectance paving. Bioretention improvements at grade would be installed throughout the landscaped areas to capture and treat stormwater runoff. Upon completion, according to plans submitted in October 2019, the Phase I Development would change the amount of impervious surface area on the Phase I Site from approximately 76 percent to 77 percent.

The Phase I Development (would require the removal of 154 trees, including 135 classified by the City as heritage trees). The City Municipal Code states that heritage trees include all trees that have a trunk diameter greater than or equal to 10 inches when measured at 54 inches above natural grade or any native bay tree, buckeye, oak, redwood, or pine tree with a diameter greater than or equal to six inches. Most of the heritage trees that are proposed to be removed for the Phase I Development are non-native gum species (Eucalyptus and Corymbia sp.). In accordance with the City's Municipal Code requirements and Specific Plan policy, new trees would be planted at a minimum 1:1 ratio to offset the trees that are being removed.

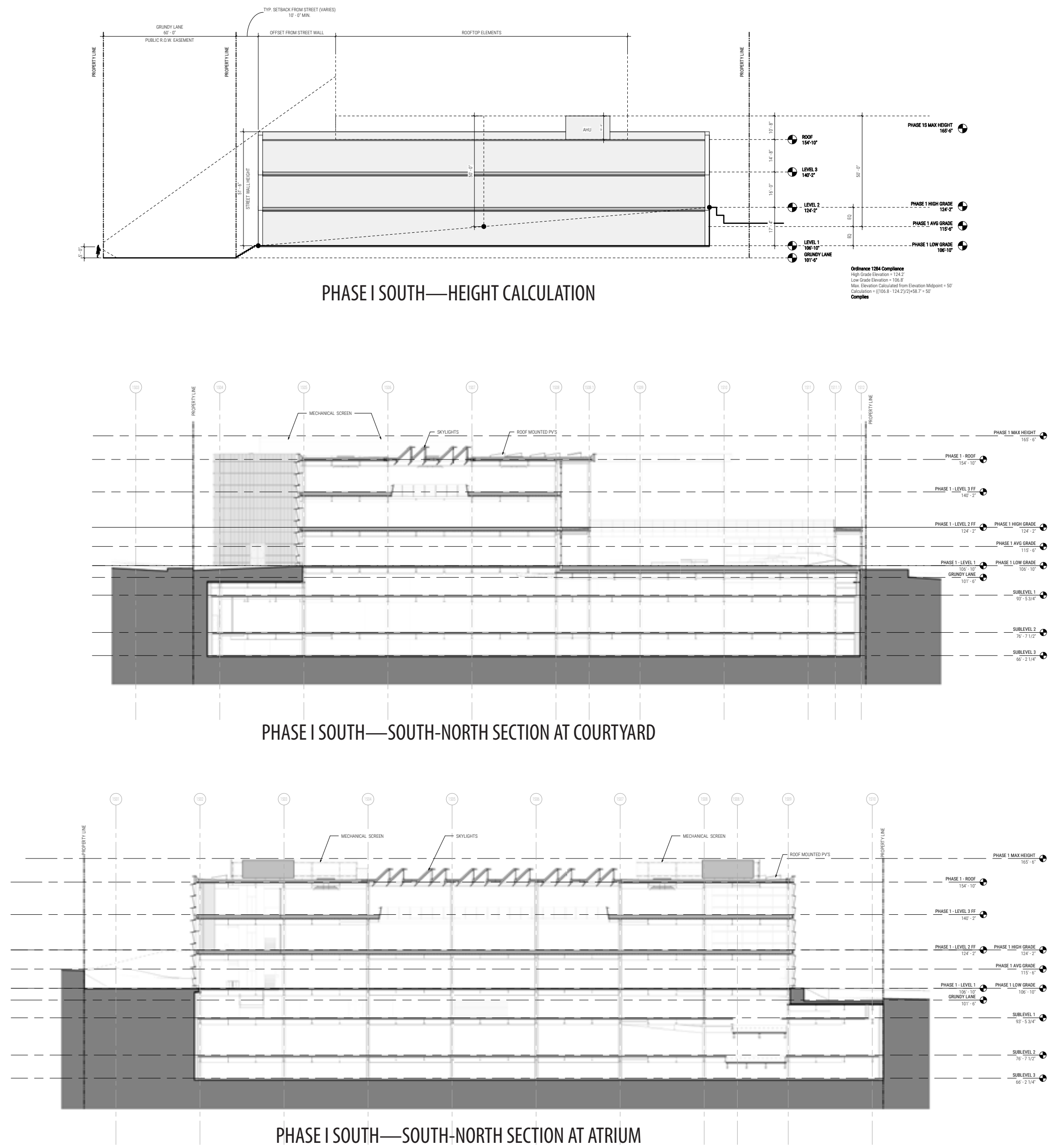

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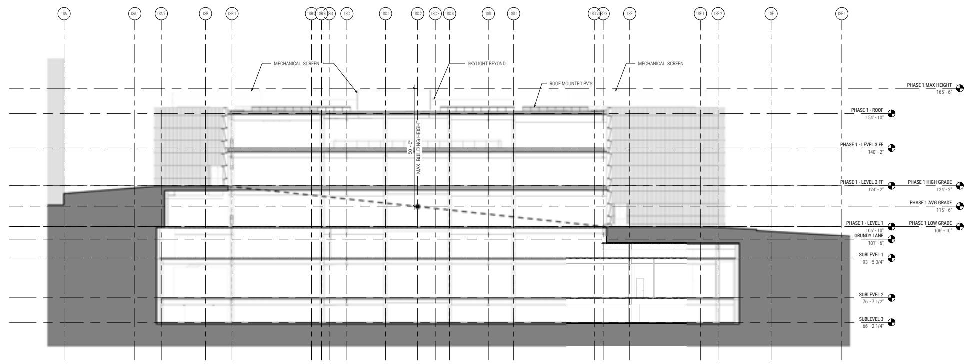
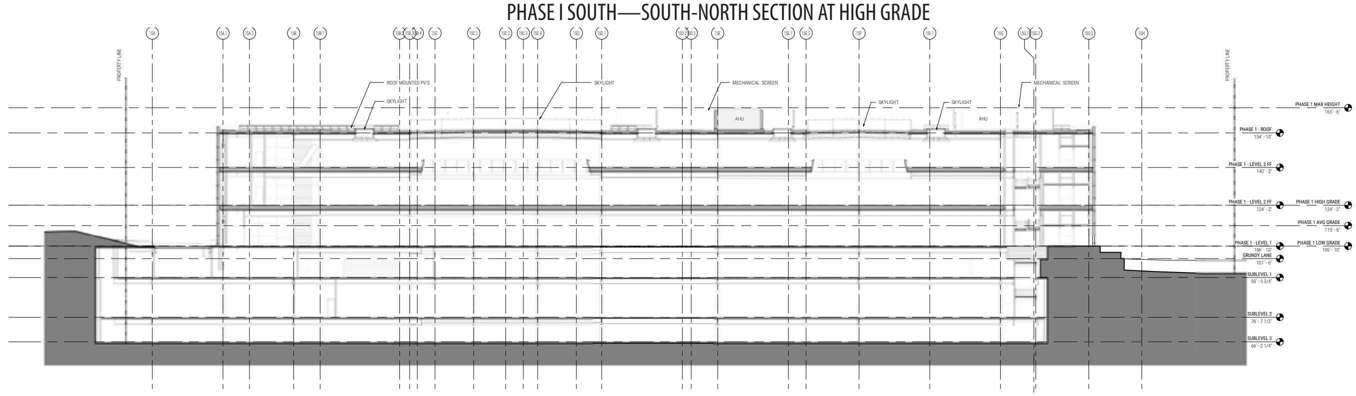
Figure 2-18a
Phase I Development South Building Cross Sections



PHASE I SOUTH—SOUTH-NORTH SECTION AT HIGH GRADE



PHASE I SOUTH—EAST-WEST SECTION AT ATRIUM

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Figure 2-18b
Phase I Development South Building Cross Sections

2.6.3.3 Public Realm Improvements

The Phase I Development would implement some of the public realm enhancements shown in Figure 2-10. These enhancements would create spaces for people to walk and bike and would connect the Phase I Site to the broader Project Site and community. Public realm improvements that would be implemented by the Phase I Development would include pedestrian and bicycle enhancements on Grundy Lane and the portions of Bayhill Drive and Cherry Avenue that are adjacent to the Phase I Development South Building. A publicly-accessible, privately maintained open space area at the private property on 1000 Cherry Avenue is also proposed.

Pedestrian and Bicycle Enhancements

Grundy Lane

The Phase I Development would straighten Grundy Lane and enhance the streetscape with an 8-foot sidewalk, a 5-foot landscape or bioretention strip on both sides of the street, two approximately 13-foot travel lanes (with bicycle sharrows), and an 8-foot parking strip on the north side. Two midblock crossings are proposed on Grundy Lane to provide safe, at-grade pedestrian connections at the multi-modal center and at Elm Avenue. The Grundy Lane/Cherry Avenue intersection is proposed to be enhanced with new crosswalk striping and accessible curb ramps. Bicycle safety features include adding safety signs and markings to roadways in order to better connect to regional transit hubs, popular destinations, and existing trails in San Bruno.

Bayhill Drive

The Phase I Development would include a Class II bike lane by reducing two-lanes of motorized traffic to one-lane in each direction for the portion of Bayhill Drive that is adjacent to the Phase I Development South Building, implementing the Bayhill Drive improvements envisioned in the Walk ‘n Bike Plan. This enhancement would consist of (mirrored in both directions) an 11-foot travel lane, a 1.5-foot vehicular/bicycle buffer-strip, a 6-foot bike lane (inclusive of gutter), a 6.5 foot landscape/bioretention strip, and an 8-foot sidewalk, as well as a center 10-foot median/turning lane. The Bayhill Drive/Cherry Avenue intersection is proposed to be enhanced with new crosswalk striping and accessible curb ramps. Bicycle safety features include adding safety signs and markings to roadways in order to better connect to regional transit hubs, popular destinations, and existing trails within San Bruno.

Cherry Avenue

The Phase I Development would reduce the existing 13-foot travel lanes along Cherry Avenue to 11-foot travel lanes with 10-foot left turn pockets for the portion of Cherry Avenue that is adjacent to the Phase I Site. Class III bicycle sharrows would be also be provided in both directions north of Grundy Lane. The segment between Bayhill Drive and Grundy Lane would include bicycle sharrows and a shuttle bus pullout in front of 901 Cherry Avenue, while the eastern segment of Cherry Avenue, in front of 900 Cherry Avenue, would incorporate a Class II bike lane, loading zones, and a transit bus stop. The existing median would be widened to accommodate a pedestrian refuge at the Bayhill Drive/Cherry Avenue and Grundy Lane intersection. Additionally, bulb-outs would be constructed at the Grundy Lane intersection to reduce the pedestrian crossing distance. An enhanced streetscape, which includes a 6-foot landscape strip, 8-foot parking lane and an 8-foot planted sidewalk zone would be incorporated along the Cherry Plaza frontage.

Cherry Avenue Plaza

The Phase I Development would include the construction of "Cherry Avenue Plaza," a privately owned publicly-accessible open space which would be located on the private property at the northeast corner of Cherry Avenue and Grundy Lane. The Cherry Avenue Plaza would provide an open space resting place in the enhanced pedestrian route between the Project Site and San Bruno Park, Commodore Park, and the National Cemetery. Some of the existing mature trees in this area would be maintained and new trees would be added for additional shading and to frame the existing 1000 Cherry building. A new shade structure and benches would be provided. Additionally, new plantings and a tree buffer would separate pedestrians from vehicles traveling along Cherry Avenue.

2.6.3.4 Lighting and Signage

Lighting in the Phase I Development would enhance the safety and security of pedestrians by incorporating a lighting strategy throughout the open spaces and landscape edges that would orient and highlight intentional wayfinding elements. All exterior light fixtures would be rated IP65[2] or better with dimming controls when available. All lighting would comply with Title 24, CalGreen outdoor lighting requirements for non-residential occupancies, and all Dark Sky Initiatives applicable to San Bruno. Additionally, offsite roadway lighting would comply with San Bruno lighting standards for fixture selection and illumination requirements.

Consistent with the City of San Bruno's Sign Ordinance, signage for the Phase I Development would include up to 225 square feet of signage per building frontage and would primarily serve as a means of identification or wayfinding. While the majority of the signage would be attached to the North Building and the South Building, monument or pole signage could also be used. All signage would be subject to the standards identified within Chapter 12.104 of the San Bruno Municipal Code.

2.6.3.5 Transportation, Circulation, and Access

The Phase I Development would include a revised roadway configuration along with amenities to enhance vehicular, emergency vehicle, pedestrian, and bicycle access in and to the Project Site. These improvements are detailed below.

Vehicular

The Phase I Development would realign Grundy Lane and vacate Elm Avenue north of Grundy Lane, as shown in Figure 2-9. The proposed straightening of Grundy Lane would result in the abandonment of the northern portion of Elm Avenue, which contains an SFPUC easement. Vehicles would have access to the new buildings through parking garage entries that would be separate from delivery, service, and loading areas. Both the North and South Building subterranean garages would be accessed from Grundy Lane, with one additional entry for the South Building along Bayhill Drive. The two garages would be connected via a below-grade tunnel connection under Grundy Lane at sub-grade level 2. The Phase I Development proposes one main loading dock off the proposed North Building which would accept deliveries for both the North and South Buildings.

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2 Ingress Protection (IP) refers to standard used for the level of sealing effectiveness for electrical enclosures. IP 65 is the rating recommended for security lighting placed in an unprotected area where it could be exposed to water and dust.

Emergency Response Vehicles

The Phase I Development would have a fire access lane located adjacent to the eastern and northern property line of the North Building parcel in order to provide access to fire department and emergency vehicles. The lane would also be used to access the loading docks and delivery areas at the North Building. Fire lanes are not required for the South Building parcel due to its frontage on and sufficient access from Grundy Lane and Bayhill Drive.

Pedestrian and Bicycle

As discussed above, the Phase I Development Project would reduce the portion of Bayhill Drive that abuts the Phase I Development South Building from two-lanes to one-lane of motorized traffic in each direction in order to accommodate a new Class II bike lane and enhanced pedestrian pathways. Pedestrian and bicycle access to the Phase I Development would be provided at several locations along each street frontage. The main pedestrian entries to the North and South Buildings would be accessed from a publicly accessible entry plaza on Grundy Lane. An additional entry to the South Building would be located at a publicly accessible plaza on Bayhill Drive. The North and South Buildings would be connected with a secure, pedestrian walkway between the buildings over Grundy Lane. All accessible pedestrian pathways throughout the Phase I Site would include ramps and vertical circulation elements (i.e., elevators/lifts supporting ADA access) as needed.

Multi-Modal Center

The Phase I Development would construct a new private multi-modal center to accommodate employer shuttles and relieve demand on public streets. The Phase I Development's private multi-modal center would accommodate four 45-foot shuttles simultaneously, or approximately 12 to 24 shuttles per hour.[3] The multi-modal center would be located on the west boundary of the 950 Elm Avenue parcel, adjacent to the Lakes parcel. The multi-modal center would be outside of the Phase I Site but within the Project Site.

2.6.3.6 Parking

Vehicular

As shown in Figure 2-11, the Phase I Development would include two subterranean parking garages – one below the North Building and one below the South Building. The Phase I Development parking garages would provide 710,000 square feet of below grade parking with approximately 1,896 parking spaces, including 55 Americans with Disabilities Act (ADA) stalls and 115 visitor stalls. The 1,896 parking spaces would serve the existing 900 and 1000 Cherry Avenue buildings and the new Phase I Development buildings.

The proposed below grade parking beneath the North Building would include approximately 1,161 parking spaces, including 31 ADA stalls on three sub-grade levels accessible from ramps at Grundy Lane. One below-grade tunnel beneath Grundy Lane would provide a connection between the buildings. The proposed below grade parking beneath the South Building would include approximately 735 parking spaces, including 24 ADA stalls, and 115 visitor stalls, on three sub-grade levels accessible from ramps at Grundy Lane with an additional ramp being considered along Bayhill Drive. Both parking garages would be waterproofed and would not require permanent dewatering systems.

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3 Assuming a loading time of 10 to 20 minutes for each shuttle.

Consistent with the Specific Plan and the San Bruno Municipal Code, the Phase I Development would maintain a parking ratio at a minimum of 3 spaces per 1,000 square feet of development. At least 6 percent of the ~~The~~ Phase I Development's ~~would also include~~ parking spaces ~~with~~ would include EV charging stations ~~capabilities~~. On-street parking would also be located along the north side of Grundy Lane, except for portions intended for white curb loading zones.

Bicycle

The Phase I Development would include publicly-accessible short-term (visitor) bicycle parking spaces adjacent to the North and South Building entries (approximately 80) and at the multi-modal center (approximately 20). Approximately 220 long-term (employee) bicycle parking would be provided at the North and South Buildings.

2.6.3.7 Operation Characteristics

As previously discussed the Phase I Development would create approximately 440,000 square feet of office space. The North Building would provide 248,000 square feet of office space, while the South Building would provide 192,000 square feet. As shown in Table 2-8~~9~~, based on the average of 1 job per 250 square feet for office, the proposed project would generate up to 1,760 employees.

Table 2-8~~9~~. Phase I Development Project Employee Generation

Building	SF	Generation Rate	Employees
North Building	248,000	1 per 250 sf	992
South Building	192,000		768
Total	**440,000**	**Total**	**1,760**

2.6.3.8 Environmental Sustainability Features

The design of the Phase I Development would incorporate environmentally sustainable design features including access to natural light through windows and skylights, photovoltaic features, and green roofs and walls. . A total of approximately 22,000 square feet of green roof space would be incorporated between both buildings. The lighting and the heating, ventilation, and air conditioning (HVAC) systems, along with other mechanical systems, would be designed around maximizing energy efficiency and natural lighting. The sustainability measures included in the design of the Phase I Development would reduce energy and outperform California energy efficiency standards (Title 24, Part VI of the California Energy Code) and also meet the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) v4 LEED Silver Certification. Where feasible, the Phase I Development would utilize interior roof mounted skylights and façade glazing systems within office areas to reduce the reliance on electrical lighting. The Phase I Development would install Energy Star appliances. The Phase I Development would also reduce indoor water use by 25 percent through the installation of low-flow building fixtures and low-maintenance, drought tolerant landscaping. The Phase I Development would also adopt waste minimization programs including recycling, composting, and reusable product use programs.

2.6.3.9 Transportation Demand Management

As discussed in Section 2.6.2.9, YouTube implements a robust TDM program. The Phase I Development would be subject to YouTube's existing TDM program, as may be reasonably updated and revised, which includes (but is not limited to) a TDM coordinator; priority parking for carpools, vanpools, and clean-fuel vehicles; bicycle parking, sharing, and facilities; a guaranteed ride home program; rideshare matching services; pre-tax commuter benefits; employer commuter shuttle services; flexible work schedule program; and commuter incentives and rewards.

2.6.3.10 Site Preparation and Construction

Demolition, Site Preparation, and Grading

Demolition

No building demolition would be required for construction of the North and South Buildings on the Phase I Site; however, the Phase I Development would require the demolition of three existing buildings on the adjacent Lakes parcel (APN 020-015-030), located at 1150, 1200, and 1250 Bayhill Drive and associated parking areas and other site improvements. The buildings, totaling 138,524 square feet of office space, are outside of the Phase I Site but within the Project Site. The buildings would be demolished in order to provide temporary parking and construction staging areas for the Phase I Development construction activities.

Site Preparation

Remnant pavement, fill materials, and landscaping would be removed during grading and site development activities. A single excavation is anticipated for the North Building, the South Building, and the portion of Grundy Lane between these two buildings. This excavation would create space for the subterranean parking lots and connecting tunnel under Grundy Lane. This approach would minimize the potential for construction and/or office user conflicts and would result in a shorter construction time period. Construction dewatering would not be required for the Phase I Development.

Construction of the Phase I Development subterranean parking structure would require installation of a temporary shoring system to ensure soil stability during construction. The temporary shoring system would consist of soldier pile walls with tiebacks along the excavation perimeter. Approximately 140 tiebacks and appurtenances along the northern boundary of the Project Site would be located within State highway right-of-way (Interstate 380) and would require an encroachment permit and airspace use agreement from the California Department of Transportation (Caltrans) for tieback supports. The Phase I Development temporary shoring plan, and an exhibit showing encroachment into Caltrans' right-of-way, is provided in Appendix 5 of this ~~Draft~~ EIR.

Construction staging would occur at the west end of the parking lot on the Lakes parcel, outside of the Phase I Site but within the Project Site. Construction equipment, materials, and some trailers would be located immediately adjacent to the South Building footprint. The primary construction office would be located within the existing office building located at 1111 Bayhill Drive.

The Phase I Development would generally offhaul soil as there would be a large volume of dirt excavated for the subterranean parking garages; however, soil may be moved to temporary stockpile locations within the Project Site and brought back to the North and South Building parcels for backfill/grading activities. The Phase I Development would be required to prepare and implement a stormwater pollution prevention plan (SWPPP) including best management practices (BMPs) to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Debris to be offhauled would include approximately 174,750 cy of soil and 12,440 tons (approximately 46,100 cy) of building and concrete debris during site preparation. Equipment expected to be used during site preparation and grading activities include crawler tractors, graders, rubber tired dozers, and scrapers.

Haul trucks used during construction of the Phase I Development could take one of two routes when accessing or leaving the Phase I Site, according to the Project applicant. One option would be to travel east on Bayhill Drive towards El Camino Real, then turn left onto El Camino Real to access I-380 east or west via the ramps just north of Bayhill Drive and vice versa. The other option would be for the trucks to travel north on Cherry Avenue from the Phase I Site to Sneath Lane, then turn left to access the I-280 south or north via the ramps west of Cherry Avenue.

Grundy Lane Closure

Construction of the Phase I Development would require closing Grundy Lane in two stages. During the first stage, Grundy Lane would be closed from Cherry Avenue to the west frontage at 1250 Grundy Lane. A cul-de-sac would be installed in front of 1250 Grundy Lane to maintain vehicular access to 1250 Grundy from east Grundy Lane, and temporary emergency vehicle access would be constructed between Grundy Lane and Bayhill Drive through the Lakes parcel. Once the first stage is completed, the second stage of the Grundy Lane realignment would begin. The second stage would start at the east frontage of 1250 Grundy Lane, and continue east to Elm Avenue. Grundy Lane would remain open for continuous access to 1250 Grundy Lane until the straightened portion has been constructed on the 950 Elm Avenue parcel. Upon completion, this straightened portion of Grundy Lane would open and the existing Grundy Lane would be closed. Utility service to properties adjacent to Grundy Lane would not be interrupted during closure and reconstruction.

Construction Activities and Schedule

Overall, construction of the Phase I Development is anticipated to take approximately 2 years and 3 months with an anticipated completion in ~~2022~~ 2025. The following assumptions apply to construction activities for the Phase I Development, with a potential for activities to overlap:

- Demolition would take approximately 19 days.
- Site preparation, including shoring and excavation, would take approximately 5 months.
- Construction of foundations and garages would take approximately 8 months.
- Construction of the superstructure would take approximately 8 months.
- Building construction would take approximately 10 months.

2.6.3.11 Utilities

As discussed in Section 2.6.2.7, the Phase I Development would include several water pipeline upgrades, a new 10-inch sewer line in Grundy Lane, a new storm drain pipeline ranging from 24-inch to 30-inch in diameter in Grundy Lane, and the installation of ten new fire hydrants. Refer to Section 2.6.2.7, above, for further discussion of the proposed Phase I Development utility improvements.

2.7 Required Project Approvals

2.7.1 Specific Plan Approvals

Discretionary approvals that would be required from the City of San Bruno for the Bayhill Specific Plan include:

- Adoption of Bayhill Specific Plan Water Supply Assessment

- Certification of Bayhill Specific Plan Environmental Impact Report
- Adoption of General Plan Amendments to address the inclusion of the Bayhill Specific Plan into the General Plan and adopt new Bayhill Specific Plan land use designations (see Section 3.6, *Land Use and Planning*, of this EIR for a list of amendments)
- Adoption of implementing Zoning Ordinance Chapter for the Bayhill Specific Plan Area and associated Zoning Map Amendments
- Adoption of Bayhill Specific Plan

2.7.2 Phase I Development Approvals

The project applicant anticipates the following discretionary entitlements will be required from the City of San Bruno to implement the Phase I Development:

- Development Agreement
- Vesting Tentative Map, including related street vacations and dedications, and street and utility easements
- Certain Encroachment Permits
- ~~Bayhill Specific Plan Development Permit (proposed new permit type created in the Specific Plan)~~
- Architectural Review Permit
- City Council Resolution authorizing the following changes to the Public Right-of-Way:
  - Elimination of special curbing (red, yellow/and or white) on public streets; and
  - Establishment of special curbing (red, yellow, and/or white) on public streets adjacent to this development site

2.7.3 Other Agency Approvals

Development under the Specific Plan, including the Phase I Development, may require the following approvals from other agencies, as determined on a project-by-project basis:

- California Department of Transportation (Caltrans)
  - Encroachment permit for construction within State highway right-of-way
- California Regional Water Quality Control Board
  - Clean Water Act Section 402 National Pollutant Discharge Elimination System General Construction Stormwater Permit and Stormwater Pollution Prevention Plan
- Bay Area Air Quality Management District
  - Stationary source permits (Authority to Construct and Permit to Operate) for generators
- Federal Aviation Administration
  - Notice of Proposed Construction and Alteration and Federal Aviation Administration Determination per Code of Federal Regulations Title 14, Part 77.9
- San Francisco Public Utilities Commission
  - Determination of consistency with applicable SFPUC adopted plans, polices, and guidelines.

- City/County Association of Governments Airport Land Use Committee
  - Determination of consistency with the Airport Land Use Compatibility Plan (ALUCP) for the Environs of San Francisco International Airport

2.8 References

State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2019. Sacramento, California, May 2019. Available: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/. Accessed: June 6, 2019. Does not include population in group quarters.

City of San Bruno. San Bruno Walk 'n Bile Plan. Map 7. Citywide bikeway network, Available: https://www.sanbruno.ca.gov/gov/city_departments/commdev/planning_division/long_range_planning/walk_bike_plan.htm. Accessed: January 30, 2019.

Association of Bay Area Governments. Priority Development Areas. Available: https://abag.ca.gov/priority/development/. Accessed: January 30, 2019.

Chapter 3
Environmental Impact Analysis

Chapter 3 of this ~~Draft~~ Environmental Impact Report (~~Draft~~ EIR) presents an analysis of the potential impacts that the Project, comprising the proposed Bayhill Specific Plan (Specific Plan) and the Phase I Development, could have on existing environmental conditions. The environmental analysis has been prepared in accordance with the California Environmental Quality Act (CEQA), as amended (Public Resources Code Section 21000, et seq.), and the CEQA Guidelines.

Organization of This Chapter

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

- **Regulatory Setting**—describes the federal, State, and local regulations regarding the impact topic that would be applicable to the construction and operation of the Project.
- **Environmental Setting**—describes existing baseline conditions, including the environmental context and background.
- **Environmental Impacts**—identifies thresholds of significance and evaluates how the Project would affect the baseline conditions. If the change to the baseline conditions would exceed the significance thresholds, this normally will constitute a significant impact, in which case mitigation measures to reduce, eliminate, or avoid the significant impacts are recommended. This section also analyzes cumulative impacts of the Project, as described under *Approach to Cumulative Impacts* on page 3-16.

CEQA Methodology

CEQA Guidelines Section 15151 provides guidance for the preparation of an adequate EIR.

- An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information that enables them to make a decision that intelligently takes account of environmental consequences.
- An evaluation of the environmental impacts of a project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible.
- Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.

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

Type of CEQA Analysis

As discussed in Chapter 1, *Introduction*, this EIR provides a program-level review of the Specific Plan (i.e., Project) and a project-level review of the Phase I Development so that the EIR can be used to adopt the

Specific Plan and entitle the Phase I Development. Impact levels are identified for both the Specific Plan and the Phase I Development. If mitigation is required, the Phase I Development's portion of mitigation implementation is identified, as applicable. It is important to note that the Phase I Development is one part of the overall buildout under the Specific Plan. That is, the Project evaluated in this ~~Draft~~ EIR is inclusive of the Phase I Development.

Buildout Scenarios

Section 15126.2 of the CEQA Guidelines requires that an EIR focus on the significant "direct and indirect" and "short-term and long-term" effects of a project. To ensure a conservative approach in analyzing environmental impacts under CEQA, EIRs typically analyze what could be considered a worst-case scenario in order to disclose all potential significant impacts that could occur from implementation of a project. For a programmatic evaluation of a land use plan, this entails projecting buildout calculations to carry through the environmental review analysis.

The term "buildout" refers to the future scenario in which development that would be permitted under the Specific Plan is fully implemented. As discussed in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis:

1. The Maximum Office Scenario, where no residential construction occurs within the housing and mixed-use overlay zones.
2. The Maximum Housing Scenario, where the housing development is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multi-family residential units.

Each chapter of this EIR analyzes the buildout scenario that represents the "worst-case" scenario for the resource area being analyzed. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts. Each chapter determines whether the worst case arises from the Maximum Office Scenario or the Maximum Housing Scenario for the applicable impact topic. Chapter 2, *Project Description*, of this EIR, provides estimates of the amount of office, retail, hotel, and residential space that could be developed under the two buildout scenarios.

California Building Industry Association vs. Bay Area Air Quality Management District

The California Supreme Court concluded in the *California Building Industry Association vs. Bay Area Air Quality Management District* (CBIA vs. BAAQMD) case that "CEQA generally does not require an analysis of how existing environmental conditions will impact a project's future users or residents." The CBIA vs. BAAQMD ruling provided for several exceptions to this general rule, where an analysis of the effect of the project on the environment may be warranted: 1) if the project would exacerbate existing environmental hazards (such as exposing hazardous waste that is currently buried); 2) if the project otherwise qualifies for certain specific specified exemptions (certain housing projects and transportation priority projects per Public Resources Code (PRC) Sections 21159.21 (f),(h); 21159.22 (a),(b)(3); 21159.23 (a)(2)(A);

21159.24 (a)(1),(3); or 21155.1 (a)(4),(6)); 3) if the project is exposed to potential noise and safety impacts due to proximity to an airport (per PRC 21096); and 4) for school projects, which require specific assessment of certain environmental hazards (per PRC 21151.8).

Specific Plan Policies

The Specific Plan includes goals and policies intended to advance the Plan's overall objectives, which include promoting a vibrant mixed-use walkable district, enhancing the public realm, improving multimodal mobility, and maximizing the community benefits from new economic activity.

Future development under the Specific Plan would be required to be consistent with and implement the policies in the Specific Plan. Accordingly, the ~~Draft~~ EIR analysis identifies Specific Plan policies that would ensure that new development under the Plan would be designed and implemented so as to avoid potential adverse environmental effects. Policies may include statements such as "new development shall" to indicate a requirement. Statements that include "should" or "are encouraged to" are intended as guidelines, with more flexibility in their implementation, and are noted for informational purposes but are not assumed to be applied to new development for purposes of the EIR's impact assessment.

Mitigation Measures

If the ~~Draft~~ EIR analysis determines that a significant impact would occur despite implementation of the identified Specific Plan policies, the impact is classified as significant, and mitigation measures are identified that would reduce, eliminate, or avoid the adverse effect. Mitigation measures identified in this ~~Draft~~ EIR were developed in accordance with CEQA Guidelines Section 15126.4(a)(1)(A), which states:

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

In this ~~Draft~~ EIR, mitigation measures are provided immediately following each identified significant impact and are labeled with both a number and a code corresponding to the topic that is addressed (e.g., "AQ-1" for Air Quality Mitigation Measure 1). An impact may have more than one mitigation measure, and a mitigation measure may apply to more than one impact.

Classification of Impacts

In accordance with Section 15022(a) of the CEQA Guidelines, the City of San Bruno (City) uses the impact significance criteria designated by CEQA and the CEQA Guidelines (Appendix G). These criteria are used to evaluate Project impacts throughout this document. These criteria are listed at the beginning of the Environmental Impacts section under Thresholds of Significance throughout this chapter.

For each impact identified, a level of significance is determined using the following classifications.

- ***No Impact (NI)*** denotes situations in which there is no adverse effect on the environment.
- ***Less than Significant (LTS)*** denotes effects that may have a noticeable impact, but do not exceed established or defined thresholds or might exceed such thresholds except for aspects of the Project as proposed that the EIR assumes will be implemented.

- ***Significant (S)*** denotes effects that may have a significant impact before mitigation (meaning exceeding established or defined thresholds). The analysis in these instances conservatively assesses the credible worst-case conditions, but the discussion acknowledges that there may be some uncertainty regarding the credible extent of the impact.
- ***Less than Significant with Mitigation (LTSM)*** denotes potentially significant effects that would be mitigated to a less-than-significant level with the implementation of feasible mitigation measures.
- ***Significant and Unavoidable (SU)*** denotes effects that would remain significant after implementation of mitigation measures.

In Chapter 3, impacts are defined using an alphanumeric system that identifies the environmental topic of the impact. For example, NOI-1 denotes the presentation of the first impact in the Noise section. The abbreviated codes used to identify the environmental issues discussed in this chapter are listed below.

- AES—Visual Resources
- AQ—Air Quality
- EN—Energy
- GHG—Greenhouse Gas Emissions
- HWQ—Hydrology and Water Quality
- LU—Land Use
- NOI—Noise
- PH—Population and Housing
- PS—Public Services and Recreation
- TRA—Transportation
- UT—Utilities and Service Systems

Impacts Requiring No Further Analysis

Section 15128 of the CEQA Guidelines states, "An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."

During the scoping process for this ~~Draft~~ EIR, the City of San Bruno determined that implementation of the Project would not result in significant environmental impacts on: Agriculture and Forestry Resources, Biological Resources, Cultural Resources (including Tribal Cultural Resources), Geology and Soils, Hazards and Hazardous Materials, Mineral Resources, and Wildfire. Therefore, these issues are not discussed in detail in this ~~Draft~~ EIR. The following discussion describes the basis for the City's determination with regard to each of these topics.

Agriculture and Forestry Resources

The Project Site is located in a developed portion of San Mateo County which is classified as "Urban and Built-Up Land" by the California State Department of Conservation (State Department of Conservation 2019). The Project Site is currently developed as an office park and shopping center. There is no designated important farmland (including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Important) within or adjacent to the Project Site (California Department of Conservation 2019). There is no grazing land within or adjacent to the Project Site. The Project Site does not contain Williamson Act land or other land zoned for agricultural uses (State Department of Conservation 2012). For the reasons stated above, the Project would have ***no impact*** on farmland or agricultural resources. For the same reasons, the Phase I Development would have ***no impact*** on farmland or agricultural resources.

The California Public Resources Code Section 12220(g) defines forest land as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, visual resources, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The Project Site is located in an urban environment and is currently developed as an office park and shopping center. The 92.2-acre Project Site contains hundreds of mature trees. Most of the on-site trees are non-native, ornamental trees planted within landscaped roadway medians and parking lot islands, although the Project Site does contain some native trees, including Red alder, Monterey pine, and Monterey cypress. Larger groups of mature Eucalyptus trees are located within several areas of the Project Site, including a vacant, approximately 11-acre area in the western portion of the Project Site between 901 Cherry Avenue and Interstate 280 (I-280); an approximately 3-acre landscaped strip along the northern boundary of the Project Site, bordering Interstate 380 (I-380); and a landscaped strip along the northern side of San Bruno Avenue, east of Cherry Avenue and west of Traeger Avenue. Eucalyptus are non-native trees that do not constitute forest land. The Phase I Site is bordered on the north by a portion of an approximately 3-acre strip of mature trees. None of the landscaped areas on the Project Site, including the areas noted above, support 10-percent native tree cover under natural conditions which would allow for the management of the forest resources included in the PRC definition of "forest land." Therefore, the Project would have ***no impact*** on forestry resources. For the same reasons, the Phase I Development would have ***no impact*** on forestry resources.

Biological Resources

The Project Site is located in an urban environment and is currently developed as an office park and shopping center. The Project Site includes a vacant, 11-acre area in the western portion of the Project Site between 901 Cherry Avenue and I-280. This area is isolated, heavily disturbed, and dominated by non-native vegetation including Eucalyptus trees. The San Bruno General Plan does not map the Project Site, inclusive of the Phase I Site, as potential sensitive species habitat (Dyett & Bhatia 2009). ICF biologists conducted surveys to assess land cover types and suitability for biological resources on May 4, 2018 and March 20, 2019 and did not identify any sensitive habitat at the Project Site. In addition, the United States Department of Fish and Wildlife Service (USFWS) concluded that there are no critical habitats within the Project Site under USFWS jurisdiction (United State Fish and Wildlife Service 2018). As such, the Project Site is not expected to support any special-status species. Therefore, the Project, including the Phase I Development, would have ***no impact*** on any species identified as a candidate, sensitive or special status in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

The Project Site contains no sensitive natural communities, including riparian habitat or wetlands. San Bruno Creek crosses the Project Site via an underground culvert (Environmental Protection Agency 2017). Most of the San Bruno Creek watershed drains through pipes in the City's storm drain system; the creek does not cross aboveground at the Project Site or anywhere in the vicinity (Moffatt & Nichol/AGS Joint Venture 2015). Therefore, the Project, including the Phase I Development, would have ***no impact*** on riparian habitat, sensitive natural communities, or federally protected wetlands.

The Project Site, including the Phase I Site, does not serve as a migratory wildlife corridor nor limit species' dispersal. The Project Site is surrounded by urban development, freeways, and other busy roadways. As such, the developed nature of the Project Site and surrounding vicinity already restricts wildlife movement. Therefore, the Project, including the Phase I Development, would have ***no impact*** on the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors.

As stated in the Agriculture and Forestry Resources discussion above, mature trees and other vegetation are abundant within the Project Site, including native and non-native trees. Most of the trees exist as ornamental landscaping in roadway medians and parking lot islands. The approximately 11-acre grove of mostly Eucalyptus trees at the western end of the Project Site is mapped in the San Bruno General Plan as potential nesting bird habitat (Dyett & Bhatia 2009). This area, and other landscaping areas within the Project Site, may serve as nesting habitat for urban-adapted passerines and raptors, such as red-tailed hawks (*Buteo jamaicensis*). The Project is required to comply with the Migratory Bird Treaty Act and the Fish and Game Code 3513, which protects nesting birds at the federal and state levels, respectively. To ensure compliance with these laws, the Specific Plan includes Policy 6-26, which requires pre-construction surveys to identify active nests prior to the commencement of construction activities, and avoidance measures in the event that active nests are found within the potential disturbance area (e.g., establishing a no-disturbance buffer area). Additionally, the City's Heritage Tree Ordinance (Municipal Code Section 8.24.070) requires removed heritage trees to be replaced. As discussed below, heritage trees include trees with trunk diameters of 10 inches or more, or 6 inches in the case of native bay, buckeye, oak, redwood, or pine trees. Compliance with the Heritage Tree Ordinance would help reduce any net loss of future nesting habitat since nesting birds typically occupy larger trees of this size. With adherence to Policy 6-26, which would also be incorporated into the conditions of approval for any development in the Project Site, and the City's Heritage Tree Ordinance, the Project, including the Phase I Development, would have a ***less-than-significant*** impact on native wildlife nursery sites.

As stated above, the Project Site contains hundreds of trees. The City of Santa Bruno Municipal Code Section 8.25.020 protects heritage trees, which are defined as the following:

- Any native bay (*Umbellularia californica*), buckeye (*Aesculus species*), oak (*Quercus species*), redwood (*Sequoia sempervirens*), or pine (*Pinus radiata*) tree that has a diameter of six inches or more measured at fifty-four inches above natural grade;
- Any tree or stand of trees designated by resolution of the city council to be of special historical value or of significant community benefit;
- A stand of trees, the nature of which makes each dependent on the others for survival; or
- Any other tree with a trunk diameter of ten inches or more, measured at fifty-four inches above natural grade.

In addition, Municipal Code Section 8.24.070 protects street trees, which are designated by the Director of Public Works. Any removal of heritage trees or street trees requires a permit from the Director of Public Works or a designee. Removed heritage trees and street trees are required to be replaced in accordance with Municipal Code requirements (in the case of street trees, in-lieu fees may be paid). Both heritage trees and street trees are located throughout the Project Site. The Phase I Development would result in the removal of approximately 135 heritage trees, as well as street trees. Additional heritage and street tree removals would occur with implementation of the Project. The Project, including the Phase I Development, would be required to comply with all applicable Municipal Code requirements related to the removal and replacement of heritage trees and street trees, including securing all necessary permits. <u>In accordance with Specific Plan Policy 3-2, new trees would be planted in a 1:1 ratio to compensate for the trees to be removed, and the Specific Plan calls for the use of large canopy trees as the predominant plant material.</u> Therefore, the Project would not conflict with local policies or ordinances protecting biological resources, such as trees. This impact would be ***less than significant*** for the Project and the Phase I Development.

Neither the Project Site nor the Phase I Site are included within a Habitat Conservation Plan or Natural Community Conservation Plan, or other approved conservation plans. As such, the Project and the Phase I Development will have ***no impact*** with respect to conflicts with a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan.

Cultural Resources

Built Resources

The Project Site, including the Phase I Site, is currently developed as an office park and shopping center, and includes associated surface parking lots. Based on a records search conducted for the Project Site by ICF at the Northwest Information Center (NWIC) at Sonoma State University, there are no historic resources located on the Project Site or the Phase I Site. One building located at 840 San Bruno Avenue appears to have been constructed over 50 years ago, and as such is a potential historic resource under CEQA. However, this building is not within the Project Site. All buildings on the Project Site appear to have been constructed after 1972.

The Project Site is located within a heavily populated suburban environment. Residential neighborhoods are located to the east and south of the Project Site. These neighborhoods contain primarily single-family residences and appear to have been developed between the 1920s and the 1960s. There are no historic districts located adjacent to the Project Site. A handful of individually significant historic resources are located within the adjacent residential neighborhood to the east of the Project Site and are identified in the San Bruno General Plan (Dyett & Bhatia 2009). Commercial and office developments similar in scale and character to the Project Site are located to its west, and institutional, commercial, and multi-unit residential developments are located to its north. Because the proposed project would be consistent with the use and character of the development that already exists on the Project Site, as well as development to the west and north of the Project Site, it would not change the setting of the area or affect potential or identified historic resources in adjacent areas. Therefore, impacts to historic resources would be ***less than significant***.

Archaeological Resources and Tribal Cultural Resources

Archaeological resources are defined as historic sites, prehistoric and historic archaeological sites, and other prehistoric and historic objects and artifacts. These resources can be visible on the ground surface as well as exist completely below the ground surface. Tribal Cultural Resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion to the California Register of Historical Places (CRHR) or included in a local register of historical resources, or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant.

A records search was conducted at NWIC of the California Historical Resources Information System (CHRIS). The records search investigated the Project Site, as well as a 0.5-mile buffer around the Project Site, for previously recorded archaeological resources as well as previously conducted cultural resource studies.

The NWIC records search identified 28 previously conducted cultural resources studies within the 0.5-mile search radius, 10 of which cover areas within or adjacent to the Project Site. Three of the studies that cover portions of the Project Site identified cultural resources outside of the Project Site but within 0.5 mile.

No previously recorded archaeological resources were identified within the Project Site, including the Phase I Site; however, five archaeological resources were identified within the 0.5-mile search radius. Of these five, four are recorded as precontact habitation sites and one is recorded as a historic-era resource. These resources are detailed below:

- **P-41-000098 (CA-SMA-95)** – This resource is recorded as an occupation site characterized by a shell mound near a small creek. One large mortar was identified. This resource has not been evaluated for its inclusion to the CRHR or the National Register of Historic Places (NRHP).
- **P-41-000099 (CA-SMA-96)** – This resource is recorded as a small occupation site, characterized by a midden deposit with shell. One small cobble mortar and pestle was identified. This resource has not been evaluated for its inclusion to the CRHR or the NRHP.
- **P-41-000103 (CA-SMA-100)** – This resource is recorded as a small shell mound. One obsidian flake was identified. This resource has not been evaluated for its inclusion to the CRHR or the NRHP.
- **P-41-000104 (CA-SMA-101)** – This resource is recorded as a small occupation site, characterized by a shell mound. Abalone shell pendants were identified in the backdirt of construction equipment. This resource has not been evaluated for its inclusion to the CRHR or the NRHP.
- **P-41-000207 (no trinomial) -** This resource consists of the Tanforan Detention Camp, a temporary detention camp established during World War II to incarcerate persons of Japanese ancestry.

San Bruno Creek historically flowed through the Project Site and is depicted on historic USGS topographic maps from as early as 1896. The creek alignment is visible through the 1940s when it was channelized (NETR Online 2019). The creek now runs underground as part of the City's storm drain system. Early habitation often occurred in close proximity to fresh water sources, such as San Bruno Creek. Given the presence of four previously recorded precontact habitation sites in the general vicinity, and the fact the historic alignment of San Bruno Creek ran through the Project Site, the Project Site has an increased sensitivity for as-yet undocumented archaeological resources.

As described in Chapter 2, *Project Description*, and shown in Figure 2-14, the Project would require a maximum depth of excavation between 29 feet and 58 feet below ground surface (bgs) for the construction of subterranean parking structures throughout most of the Project Site. Excavation associated with the Phase I Development would extend to approximately 55 feet bgs. While the Project Site has been subject to development in the past, this deep excavation has the potential to encounter as-yet undocumented archaeological resources.

On November 3, 2017 the Native American Heritage Commission (NAHC) was contacted with a request for a search of their Sacred Lands File (SLF). On November 9, 2017, the NAHC responded stating that while no sacred lands have been identified within the Project Site, the project vicinity is considered sensitive for cultural resources. The NAHC provided a list of five individuals who represent California Native American tribes that culturally identify with the geographic area. The City sent letters to these five representatives on November 30, 2017 and September 25, 2019, in conjunction with the Notice of Preparation (NOP) and revised NOP for the Project, respectively. The letters informed the tribes of the opportunity to consult with the lead agency pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18, as outlined in Public

Resources Code Sections 21080.3.1/21080.3.2 and Government Code Section 65352.3, respectively. No tribe requested formal consultation with the City under AB 52 or SB 18 during either outreach process. However, one response was received from the Amah Mutsun Tribal Band of Mission San Juan Bautista on December 7, 2017 that requested that all construction personnel receive cultural sensitivity training and that archaeological and tribal monitors be present during ground-disturbing activities. As described below, these recommendations are addressed by policies in the Specific Plan.

Based on the above analysis, there is reasonable potential for as-yet undocumented archaeological resources, including tribal cultural resources, to be present within the Project Site, including the Phase I Site. Ground disturbance has the potential to impact these resources. The Specific Plan includes Policies 6-27, 6-28, 6-29, and 6-30. Policy 6-27 requires preparation of an Archaeological Monitoring Plan (AMP) by a qualified professional archaeologist prior to any project-related ground disturbance that outlines areas of archaeological sensitivity, if any, and includes protocol to follow if unanticipated archaeological or tribal cultural resources are encountered. Policy 6-28 requires construction contractors to be trained in recognizing archaeological and tribal cultural resources. Policy 6-29 requires all work to stop immediately if archaeological or tribal cultural resources are discovered during construction. Policy 6-30 includes similar protections for human remains of Native American origin discovered during construction. With adherence to Policies 6-27, 6-28, 6-29, and 6-30, which would also be incorporated into the conditions of approval for any development in the Project Site, impacts to tribal cultural resources and archaeological resources would be ***less than significant*** for the Project and the Phase I Development.

Geology and Soils

The following analysis is based in part on the August 2018 *Preliminary Geotechnical Report for Environmental Impact Report Review* prepared for the Project and the August 2019 *YouTube Campus Phase I Preliminary Geotechnical Report* prepared for the Phase I Development, both of which were prepared by Engeo. The preliminary geotechnical reports are included in Appendix 3.0-1 and Appendix 3.0-2 of this ~~Draft~~ EIR. The preliminary geotechnical reports found that development of the Project and the Phase I Development is feasible from a geotechnical standpoint provided the preliminary recommendations contained in the reports and future design-level geotechnical studies are incorporated into the design plans.

The Project Site and the Phase I Site are located in a seismically active area. The San Andreas fault zone lies approximately one mile to the west of the Project Site (ENGEO Incorporated 2018). According to recent projections, the San Andreas fault has a 6.4 percent probability of having a 6.7 earthquake by 2044 with a maximum moment magnitude of 8.0 (Field, E.H. et. al. 2019). The San Francisco Bay Area has a 72 percent probability of a 6.7 earthquake by 2044 (Field, E.H. et. al. 2019). The Serra fault is located approximately 0.5 mile west of the Project Site and is also considered to have been active within Holocene time (ENGEO Incorporated 2018). Therefore, it is likely that the Project Site will experience strong ground shaking over the life of the Project. Because the Project Site does not lie within a mapped Alquist-Priolo fault zone (California Geological Survey. 1982), it is unlikely that there would be surface fault rupture at the Project Site (ENGEO Incorporated 2018). Construction under the Project inclusive of the Phase I Development would adhere to requirements of the current California Building Code (San Bruno Municipal Code 11.04.010) and to City grading requirements (San Bruno Municipal Code 12.16.010). For the reasons stated above, potential substantial adverse effects resulting from surface rupture and strong seismic ground shaking would not be directly or indirectly caused by the Project or the Phase I Development, nor would the Project or the Phase I Development exacerbate existing environmental hazards related to surface rupture or strong seismic ground shaking. Impacts would be ***less than significant***.

According to the San Bruno General Plan and the preliminary geotechnical reports, the Project Site, including the Phase I Site, is not within an area with high to very high susceptibility of liquefaction (ENGEO Incorporated 2018; City of San Bruno. 2009). Some liquefaction within flat thin layers of the Colma Formation underlying the Project Site could occur, leading to settlement of less than 0.75 inch; this is not considered to be of geotechnical concern (ENGEO Incorporated 2018). Liquefaction at the Phase I Site is not anticipated (ENGEO Incorporated 2019). Further, as previously stated, construction under the Project inclusive of the Phase I Development would adhere to requirements of the current California Building Code (San Bruno Municipal Code 11.04.010) and to City grading requirements (San Bruno Municipal Code 12.16.010), which would address any potential liquefaction hazards. Therefore, potential substantial adverse effects resulting from liquefaction would not be directly or indirectly caused by the Project or the Phase I Development, nor would the Project or the Phase I Development exacerbate existing environmental hazards related to liquefaction. Impacts would be ***less than significant***.

According to the San Bruno General Plan, the Project Site, including the Phase I Site, is not located in an area susceptible to erosion, or an area susceptible to landslide (City of San Bruno 2009). In addition, future development under the Project, including the Phase I Development, would be required to implement a stormwater pollution prevention plan (SWPPP) to address potential erosion effects. Therefore, neither the Project nor the Phase I Development would directly or indirectly cause potential substantial adverse effects resulting from erosion or landslide, nor would the Project or the Phase I Development exacerbate existing environmental hazards related to erosion or landslide. Impacts related to erosion would be ***less than significant*** and ***no impact*** would occur with respect to landslides.

The Project Site is located on nonengineered fill up to 20 feet in thickness where the historical San Bruno Creek was backfilled, and 2 to 5 feet in thickness elsewhere (ENGEO Incorporated 2018.). The Phase I Site is underlain by nonengineered fill up to 8 feet in thickness (ENGEO Incorporated 2019). Nonengineered fill can undergo excessive settlement, especially under new fill or building loads. Further settlement as a result of seismic densification is unlikely to occur because the Pleistocene-age Colma Formation, which underlies the Project Site, is composed of dense sand. As described in Chapter 2, *Project Description*, and shown in Figure 2-14, the Project would require a maximum depth of excavation between 29 feet and 58 feet bgs for the construction of subterranean parking structures throughout most of the Project Site. Excavation associated with the Phase I Development would extend to approximately 55 feet bgs. Therefore, the majority of the nonengineered fill would be removed during excavation for the proposed parking garages. If buildings are constructed within existing fill, grading or foundation design would need to account for the presence of the fill. Additionally, proper shoring techniques would be required to ensure that fill outside of building footprints does not potentially collapse into building excavations.

Approximate groundwater elevations on the Project Site have ranged over various studies from approximately 25 to over 60 (NAVD88), corresponding to 10 to more than 50 feet bgs (ENGEO Incorporated 2018), varying likely with seasonality, weather conditions, and irrigation. Excavation below these depths, which is expected to occur under the Project, would be required to dewater the construction site. Refer to Section 3.5, *Hydrology and Water Quality,* for an analysis of impacts to groundwater related to construction dewatering. Structures built at this depth would be waterproofed in accordance with Specific Plan Policy 6-23; permanent dewatering systems are not proposed. Proper foundation design would prevent uplift where groundwater is shallower than the foundation and address the effects of the native expansive soil.

The Specific Plan includes Policy 6-31, which requires all applicants proposing development projects within the Project Site prepare a site-specific geotechnical exploration as part of the design process for each development, subject to review and approval by the San Bruno Public Works Department. With adherence to Policy 6-31, which would also be incorporated into the conditions of approval for the development on the Project Site, grading requirements (San Bruno Municipal Code 12.16.010), and standard building code requirements set forth in the California Building Code (San Bruno Municipal Code 11.04.010), geotechnical impacts related to expansive soils, soil settlement, soil stability, and construction at groundwater depth resulting from the Project and Phase I Development would be ***less than significant***.

Neither the Project nor the Phase I Development include alternative wastewater facilities so there would be ***no impact*** related to this topic.

As noted above, the Project Site is underlain by artificial fill and the Colma Formation. The Colma Formation is known to be sensitive for paleontological resources (Rodda, P.U. and Baghai N. 1993). Therefore, excavation below the artificial fill would disturb a geologic formation known to have potential to contain paleontological resources and therefore has potential to encounter paleontological resources. The Specific Plan includes Policies 6-32 and 6-33, which require construction contractors to be trained in recognizing paleontological resources and include protocol to follow if unanticipated paleontological resources are encountered. With adherence to Policies 6-32 and 6-33, which would also be incorporated into the conditions of approval for the Project, impacts on paleontological resources from the Project and the Phase I Development would be ***less than significant***.

Hazards and Hazardous Materials

The following analysis is based in part on the August 2015 *Phase I Environmental Site Assessment* (Phase I ESA) prepared for the Phase I Development by Iris Environmental. The Phase I ESA is included in Appendix 3.0-3 of this ~~Draft~~ EIR. The Phase I ESA provides a review of the properties located at 900 and 1000 Cherry Avenue based on site visits, property owner interviews, regulatory agency database searches, and reviews of historic aerial photographs, maps, and hazardous site databases. The Phase I ESA did not identify any recognized environmental conditions (RECs) on the Phase I Site. The Phase I ESA includes information relevant to the remainder of the Project Site that is summarized here.

Construction activities associated with implementation of the Project, including the Phase I Development, would involve the routine transport, use, and disposal of hazardous materials such as fuel, solvents, paints, oils, grease, and caulking. Such transport, use, and disposal must be compliant with applicable regulations, such as the Resource Conservation and Recovery Act (RCRA), U.S. Department of Transportation hazardous materials regulations, and California Occupational Safety and Health Administration (Cal/OSHA) regulations. In addition, the San Bruno General Plan contains policies requiring the appropriate use, disposal, and transport of hazardous materials (City of San Bruno 2009). The solvents, paints, oils, grease, and caulking would be transported, used, and disposed of during the construction phase; these materials are typically used in construction projects and would not represent transport, use, or disposal of acutely hazardous materials. During operation, the new office and residential land uses that would be permitted under the Project would involve handling common types of hazardous materials related to cleaning and building maintenance, such as cleansers, disinfectants, and chemical agents for sanitation. These commercial products are labeled to inform users of potential risks and appropriate handling procedures and would be used in small amounts. The types of land uses that would be permitted under the Project typically do not involve the use of acutely hazardous materials. With adherence to federal and state laws, as well as San Bruno General Plan policies, impacts from the routine transport, use, and disposal of hazardous materials associated with construction and operation of the Project and Phase I Development would be ***less than significant***.

As described in Chapter 2, *Project Description*, and shown in Figure 2-14, the Project would require a maximum depth of excavation between 29 feet and 58 feet bgs for the construction of subterranean parking structures throughout most of the Project Site, requiring excavation of up to approximately 4.8 million cubic yards of soil over the Project's 20-year buildout. Excavation associated with the Phase I Development would extend to approximately 55 feet bgs. A preliminary evaluation of contaminated sites in the vicinity of the Project Site was performed utilizing GeoTracker, EnviroStor, and the Phase I ESA (EKI Environment & Water, Inc. 2019). Generally, the majority of currently or formerly contaminated sites located near or on the Project Site are closed leaking underground storage tank (LUST) sites. One contaminated site, referred to as the Bayhill 7 Facility, exists at 999-1001 Bayhill Drive within Phase 5 of the Project. According to GeoTracker, an elevator hydraulic fluid leak was discovered at the Bayhill 7 Facility in 2004, followed by excavation of impacted soil. Further investigation in 2005 showed residual petroleum hydrocarbons in soil and groundwater at the Bayhill 7 Facility, but these impacts were deemed to not pose a risk to public health and the environment. The Bayhill 7 Facility was closed under the San Mateo County Health Department Groundwater Protection Program (GPP) in 2009 with the condition that any proposed change in land use or proposed soil or groundwater removal activity be reviewed by the GPP pursuant to government code section 65850.2. Future development in proximity to the Bayhill 7 Facility would be subject to this condition. No potential sources of soil contamination were identified at the Phase I Site in the Phase I ESA. The Phase I ESA identified a former dry cleaner at 851 Cherry Avenue, within the Bayhill Shopping Center, as a potential hazardous waste generator, but noted that no records of spills, releases, or environmental impacts associated with the dry cleaner were found. Nonetheless, excavation activities conducted as part of the Project, particularly within Phase V Site, could potentially encounter contaminated soil. If contaminated soils are encountered, they would be removed and remediated at an approved disposal facility in accordance with regulatory requirements. All new development would be required to ensure proper disposal of contaminated soils and groundwater in accordance with federal, State, and local regulations. In addition, the San Bruno General Plan Health and Safety Element includes Policy HS-30 regarding the siting of new uses in areas which contain contaminated soil that minimize risk from upset and accident conditions. With adherence to General Plan Policy HS-30 and existing regulations, impacts associated with risk of upset from contaminated soil would be ***less than significant*** under the Project and Phase I Development. Impacts related to groundwater contamination are addressed in Section 3.5, *Hydrology and Water Quality*.

Buildings and structures built prior to 1977 could potentially contain asbestos-containing materials (ACMs), and buildings and structures built prior to 1972 could potentially contain lead-based paint (LBP). ~~The buildings on the Phase I Site were constructed in 1978 and are unlikely to contain ACM or LBP.~~ The three buildings at 1150–1250 Bayhill Drive that would be demolished as part of the Phase I Development were constructed in 1976. According to the pre-demolition ACM surveys conducted for the buildings (FACS 2019a, 2019b, 2019c, 2019d, 2019e, 2019f), ACM and lead are known to be present. As shown in Table 2-2 in Chapter 2, *Project Description*, other buildings on the Project Site appear to have been constructed sometime after 1972, and as such could contain ACM but would be unlikely to contain LBP. If ACM or LBP are encountered during building demolition, suspect materials would be removed by a certified abatement contractor in accordance with applicable regulations, including Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing. In addition, the San Bruno General Plan Health and Safety Element includes Policies HS-28 and HS-29 regarding the siting of new uses in areas which contain ACM and LBP that would minimize the risk from upset and accident conditions involving these materials. For the above reasons, impacts associated with risk of upset from ACM and LBP would be ***less than significant*** under the Project and Phase I Development.

The nearest school to the Project Site is Allen (Decima M.) Elementary, which is located at 875 West Angus Avenue, approximately 0.27 miles southeast from the Project Site. Due to the distance between the Project Site and the nearest school, implementation of the Project and Phase I Development would not emit hazardous emissions or involve the handling of hazardous materials within one-quarter mile of an existing school, and impacts from the implementation of the Project and Phase I Development would be ***less than significant***.

The Project Site contains two locations which were identified by the California Water Resource Control Board as containing LUSTs: 801 El Camino Real and 950 Elm Avenue (California State Water Resources Control Board n.d.). However, both sites have undergone cleanup and/or remediation. The Water Board also identified a Cleanup Site at 999-1001 Bayhill Drive, the Bayhill 7 Facility discussed above, but this location has since been cleaned up and the case has been closed (California State Water Resources Control Board n.d.). The Hazardous Waste and Substance Sites (Cortese) List contains no hazardous material release sites within the Project Site. The Solid Waste Information System (SWIS) database likewise lists no active, planned, or closed sites within the Project Site (CalRecycle 2017). In addition, the San Bruno General Plan Health and Safety Elements includes several policies regarding the siting of new uses in areas which contain potentially hazardous materials. For these above reasons, impacts regarding the siting of new uses on areas listed on government-compiled hazardous materials lists would be ***less than significant*** for the Project and the Phase I Development.

The Project Site is located west of the San Francisco International Airport (SFO) but is not located within any of the safety zones established in the Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport (ALUCP) (City & County Association of Governments of San Mateo County. 2012). The ALUCP also contains policies to protect navigable airspace around the airport for the safe and efficient operation of aircraft in flight, including policies regarding building heights; however, the maximum building height for the Project Site according to the ALUCP is the most permissive category of 150 feet or greater, which exceeds maximum building heights that would be allowed under the Specific Plan. The Federal Aviation Administration (FAA) also requires review of projects proximate to airports. Section 77.9 (Title 14 Code of Federal Regulations Part 77) highlights the rules and regulations for new construction and alterations to existing structures. The proposed Phase I Development structures meet the requirements of 14 Code of Federal Regulations (CFR) Part 77.9(e)(1) as required by the City of San Bruno to find the Phase I Development exempt from notice to the FAA under CFR Part 77, et. seq. Appendix 3.0-4 provides the City's signed exemption form. Therefore, neither the Project nor the Phase I Development would have the potential to result in a safety hazard or excessive noise for people residing or working in the area and impacts would be ***less than significant***.

The County of San Mateo Office of Emergency Services maintains the Countywide Emergency Operations Plan (EOP) (San Mateo County Sherriff's Office Homeland Security Division Office of Emergency Services. 2015). Revised in May 2015, the EOP establishes policies and procedures and assigns responsibilities to ensure the effective management of operations in the event of an emergency. Implementation of the Project and construction of the Phase I Development would result in an increase in employees and residents in the City of San Bruno, which would increase the demand for emergency services. However, as discussed in Section 3.8, *Population and Housing*, the Project would be within regional and local population and housing growth forecasts for the area. In addition, the Project Site's location adjacent to I-280, I-380, and El Camino Real would facilitate evacuation of Project residents and employees in an emergency in accordance with the EOP. For the above reasons, the Project and Phase I Development would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts would be ***less than significant***.

The Project and Phase I Site would not expose people of structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires for the reason described below under "Wildfire."

Mineral Resources

The Project Site, including the Phase I Site, is located in a developed urbanized portion of San Bruno which has been disturbed by development. The Project Site, including the Phase I Site, is not located within a City-designated Mineral Resource Zone and development within the Project Site would not result in the loss of known mineral resources or substantially limit the availability of mineral resources over the longer term (City of San Bruno 2014). The Project Site, including the Phase I Site, is not located in an area classified by the California Geologic Survey as having significant mineral deposits (California Geological Survey 2019). The Project Site, including the Phase I Site, does not contain any oil fields or oil drilling areas. For the reasons state above, implementation of the Project, inclusive of the Phase I Development, would not result in the loss of availability of a known mineral resource nor of a locally-important mineral recovery site, and ***no impact*** would occur.

Wildfire

The Project Site, including the Phase I Site, is located in a developed portion of the City of San Bruno and is not located in or near state responsibility areas or land classified as a high fire hazard severity zone. There are no wildlands located in the Project area. The Planning Area is identified by the California Department of Forestry and Fire Protection (CALFIRE) as a Non-VHFHSZ (non-very high fire hazard severity zone), meaning the likelihood of wildfire is very low. Therefore, neither the Project nor the Phase I Development would subject people or structures to a significant risk of loss, injury, or death as a result of exposure to wildland fire, and the proposed residential and commercial uses would not create a fire hazard that has the potential to exacerbate current conditions at the project site relative to wildfires. Therefore, impacts associated with wildfire hazards would be ***less than significant*** for the Project and the Phase I Development.

Approach to Cumulative Impacts

In addition to the evaluation of project-specific impacts, CEQA also requires an evaluation of cumulative impacts. In accordance with CEQA, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. According to Section 15355 of the CEQA Guidelines:

> "Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> (a) The individual effects may be changes resulting from a single project or a number of separate projects.
>
> (b) 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. Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time.

Two approaches to a cumulative impact analysis are provided in CEQA Guidelines section 15130(b)(1):

- The analysis can be based on a list of reasonably foreseeable future projects that could produce closely related impacts and combine with those of a proposed project, or
- A summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts.

The analyses in this ~~Draft~~ EIR employ both a list-based approach and a projections approach, depending on which approach best suits the individual resource topic being analyzed. For instance, the cumulative analysis of noise impacts considers individual projects that are anticipated in the vicinity. Such projects in combination with the Project may result in cumulative noise effects. By comparison, the cumulative population and housing analysis relies on a projection of overall citywide and regional growth, along with consideration of reasonably foreseeable projects.

Throughout this ~~Draft~~ EIR, cumulative impacts are denoted by a "C" (i.e., Impact C-NOI-1). An analysis of cumulative impacts follows the Project-specific impact evaluation and recommendation of mitigation measures in each section. An introductory statement defining the cumulative context that is being analyzed for respective topical sections (e.g., the City of San Bruno), and the cumulative analysis approach (i.e., list-based, projections, or both) is included at the beginning of each cumulative impacts section. In some instances, a Project-related impact may be considered less than significant but would be considered potentially significant in combination with development of the surrounding area. Similarly, a Project-specific, potentially significant impact may not result in a cumulatively considerable impact.

The reasonably foreseeable cumulative projects considered in the cumulative analyses that use a list-based approach are listed in Table 3.0-1 and shown on Figure 3.0-1. These include proposed projects pending approval, approved projects, and projects under construction at the time of the NOP.

Table 3.0-1. Cumulative Projects Contributing to Foreseeable Development

Location	Status	Type	Residential (dwelling units)	Retail (square feet)	Office (square feet)	Medical (square feet)	Hotel (rooms/ square feet)
Plaza Apartments 406 San Mateo Avenue	Under construction	Mixed-Use	83 MF	6,975			
841 San Bruno Avenue	Under construction	Medical Office				15,000	
Skyline College Residential Project 3300 College Drive	Under construction	Residential	40 SF 30 MF				
271 El Camino Real	Pending approval	Residential	24 MF				
111 San Bruno Avenue	Approved	Mixed-Use	62 MF	7,600			
Mills Park Plaza 715 El Camino Real	Approved	Mixed-Use	425 MF	54,200			
500 Sylvan Avenue	Approved	Residential	9 MF				
160 El Camino Real	Pending approval	Hotel					34 rooms/ 18,314 sf
Glenview Terrace 2880 San Bruno Avenue	Pending approval	Residential	29 SF				
APN - 020-012-160 (vacant parcel west of 901 Cherry Avenue)[1]	Approved	Office			287,000		
Total	**-**	**-**	**702 DU (633 MF, 69 SF)**	**68,775 sf**	**287,000 sf**	**15,000 sf**	**34 rooms/ 18,314 sf**

Source: City of San Bruno, 2019.
MF = multi-family
SF = single-family
DU = dwelling units
sf = square feet

[1] As noted in Chapter 2, *Land Use*, of the Specific Plan, this project could be constructed under an existing, fully entitled development agreement or, if the development agreement expires, as part of buildout under the Project. Therefore, it is conservatively evaluated in this EIR as both a component of the Project and a cumulative project. As stipulated by Policy 2-3 in the Specific Plan, if the project is developed under the existing Development Agreement, the net new square footage allowed on Parcel 5 would be reduced from 287,000 square feet by the number of square feet developed under the Development Agreement.

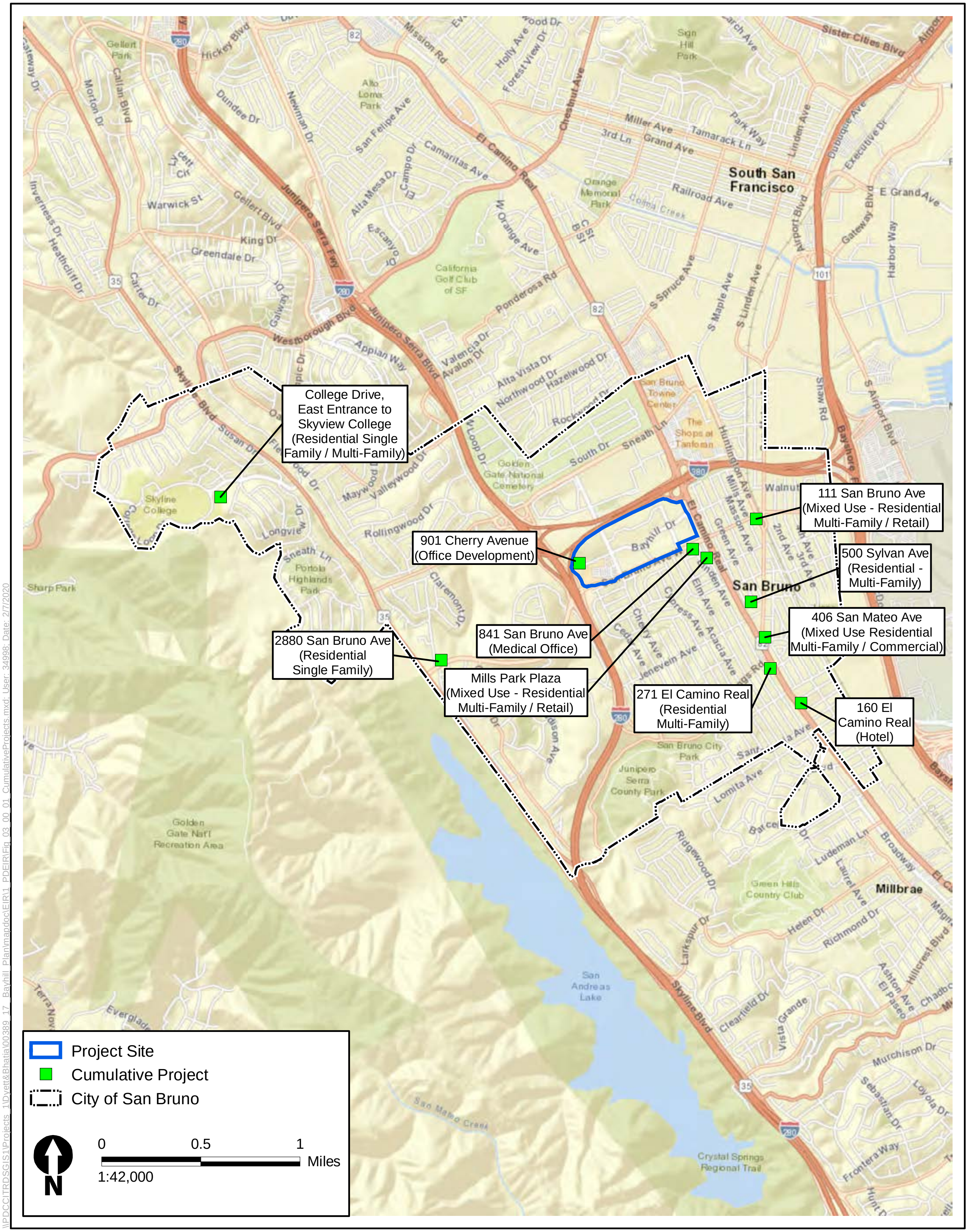

Figure 3.0-1
Cumulative Projects

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3.1 Visual Resources

This chapter describes the regulatory and environmental setting for visual resources in the City of San Bruno as it pertains to the Bayhill Specific Plan and Phase I Development (Project). It also describes the visual impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ Environmental Impact Report (EIR), the Project comprises the Specific Plan and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level, and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described.

No comments directly related to visual impacts were provided in response to the Notice of Preparation (NOP) and revised NOP. One comment was received pertaining to shadowing from the Phase I Development. This comment was not a formal scoping comment submitted in response to the NOP but emerged from the City's community outreach. The City has elected to include a shading analysis in the EIR in response.

3.1.1 Existing Conditions

3.1.1.1 Regulatory Setting

This section summarizes state and local regulations and policies applicable to the Specific Plan and Phase I Development concerning visual resources. There are no federal regulations regarding visual resources applicable to the Project.

State

California Scenic Highways Program

The California State Legislature established the California Scenic Highway Program in 1963. This legislation views scenic highways as "a vital part of the all-encompassing effort…to protect and enhance California's beauty, amenity and quality of life." The State Scenic Highway System includes a list of highways that are either eligible for designation as a scenic highway or have been so designated. These highways are identified in Section 263 of the State Streets and Highways Code. The status of a State Scenic Highway can be changed from eligible to officially designated when a jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a scenic highway. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263.

The portion of Interstate (I-) 280 between the northern San Bruno city limit (to the north) and the Santa Clara County line (to the south) (California Department of Transportation 2011) is designated by Caltrans as a State Scenic Highway. Most of the San Bruno segment of the highway is lined with a mix of deciduous and evergreen screening trees, allowing for distant partial views of San Francisco Bay and San Francisco International Airport (SFO) to the east. The segment of I-280 adjacent to the Project Site is at a higher elevation than the Project Site, and the adjacent ramp to the I-380 interchange that borders the Project

Site is screened by trees and other vegetation within the right-of-way. Other than an overpass view of San Bruno Avenue West and a screened view of the existing building at 900 Cherry Avenue, the Project Site is not visible from I-280 due to existing topography and vegetation.

Local

City of San Bruno General Plan

The San Bruno General Plan 2025 (City of San Bruno 2009), adopted in 2009, establishes a vision and action plan for the city's long-term development. The Land Use and Urban Design and Transportation elements contain policies relevant to visual resources. The Project's consistency with Land Use and Urban Design and Transportation Element Policies related to visual resources is described in Table 3.6-1 in Section 3.6, *Land Use and Planning*, of this ~~Draft~~ EIR.

Land Use and Urban Design Element

The Land Use and Urban Design Element includes policies regarding urban design standards and views. It highlights the views of San Bruno Mountain, Sweeney Ridge, and associated ridgelines, as well as the California coast, as valued contributors to San Bruno's character. However, neither the General Plan nor the City has officially designated scenic vistas. Policies seek to ensure that new development is of the highest quality design and construction, especially development in highly visible locations per General Plan Figure 2-3, which identifies the hillsides to the west of the Project Site as highly visible locations. There are no highly visible locations in the Project Site or near enough to the Project Site to be subject to these policies.

Transportation Element

The Transportation Element contains policies for five scenic corridors: I-280, Skyline Boulevard, Crystal Springs Road, Sharp Park Road, and Sneath Lane. I-280 is adjacent to the Project Site and the only scenic corridor in the vicinity. Policies address conservation of the scenic corridors through coordination with Caltrans and the County of San Mateo, limiting modifications to the scenic corridors, preserving large trees and other features, and supporting beautification along I-280. Policy T-30 calls for retaining trees and improving the appearance of San Bruno Avenue.

City of San Bruno Municipal Code Heritage Trees Ordinance

Chapter 8.25 of the San Bruno Municipal Code, referred to as the Heritage Trees Ordinance, establishes regulations for the removal of heritage trees on private property within the city in order to retain as many trees as possible, consistent with the reasonable economic enjoyment of private property. These regulations were put in place for the purposes of maintaining public health and safety, preserving the scenic beauty and visual resource values of the community, preventing erosion of topsoil, protecting against flood hazards and the risk of landslides, counteracting the pollutants in the air, maintaining the climatic balance and decreasing wind velocities, and relieving the public costs of installing and maintaining stormwater drainage systems.

The Heritage Trees Ordinance specifies that property owners who wish to remove or prune one or more heritage trees must apply for a permit to do so, identifying the tree(s) in question, the reasons for removal or pruning, and reforestation conditions for the replacement of trees proposed to be removed. Heritage trees are defined as:

- Any native bay (*Umbellularia californica*), buckeye (*Aesculus* species), oak (*Quercus* species), redwood (*Sequoia sempervirens*), or pine (*Pinus radiata*) tree that has a diameter of 6 inches or more measured at 54 inches above natural grade;
- Any tree or stand of trees designated by resolution of the City Council to be of special historical value or of significant community benefit;
- A stand of trees, the nature of which makes each dependent on the others for survival; or
- Any other tree with a trunk diameter of 10 inches or more, measured at 54 inches above natural grade.

City of San Bruno Zoning Ordinance

The San Bruno Zoning Ordinance controls development factors that influence the visual character of a site, including building height, bulk, setback, lot coverage, and landscaping. Chapter 12.26 provides for maximum three-story/50-foot height limits throughout the city, per City Ordinance No. 1284.

City of San Bruno Municipal Code Chapter 12.104

Chapter 12.104 of the San Bruno Municipal Code governs the use, placement, size, and illumination of signs.

3.1.1.2 Environmental Setting

Regional Setting

The Project Site is in the City of San Bruno between the coastal range and San Francisco Bay along the northern San Francisco Peninsula. Visual features of the city include hills to the west, canyon open spaces, mature trees, views of the bay, and a downtown with historic architecture and pedestrian scale. Topography plays a key role in shaping San Bruno's visual character. Hills to the north and west provide a prominent visual backdrop to commercial areas adjacent to El Camino Real. San Bruno Mountain and Sweeney Ridge both rise approximately 1,200 feet above mean high water sea level. The topography gradually flattens out from the western ridgeline toward San Francisco Bay. The eastern city limits are within 2 miles of the Bay, with SFO situated along the Bayshore itself.

The nearby ridgelines can be seen from points throughout the city and serve as geographical landmarks along the northern San Francisco Peninsula. Partial views of San Francisco Bay, the Oakland hills, and Mount Diablo in central Contra Costa County can be seen from points along the western hills.

Local Setting

The land uses closest to the Specific Plan Area consist of mostly single-family residential development to the west (across I-280) and south t, multifamily residential development to the north (across I-380), and commercial development to the east. Key nearby visual features include Commodore Park and Golden Gate National Cemetery to the north and northwest, Crestmoor Canyon to the west, and commercial areas along El Camino Real and San Mateo Avenue and at the San Bruno Towne Center and Tanforan mall, all east of the Project Site.

Project Site

Visual Character

The Project Site rises a total of approximately 100 feet, from 50 feet above sea level at the east end of Bayhill Drive to 160 feet above sea level on the west, with the adjacent wooded hillside rising to 200 feet at I-280. Portions of San Bruno Avenue, Grundy Lane, and Cherry Avenue have expansive views of San Bruno Mountain to the north, the wooded hills west of I-280, and San Francisco Bay and the East Bay Hills to the east. From many locations within the Project Site, however, these features are not visible because of topography, existing buildings, and/or onsite trees and other vegetation.

The Project Site is bordered by I-280 to the west and I-380 to the north, commercial parcels fronting six-lane El Camino Real (State Highway 82) to the east, and four-lane San Bruno Avenue West to the south. The 92.2-acre Project Site consists of an existing developed office park and an existing developed shopping center. It contains eight irregularly shaped blocks between 7 and 15 acres each. Each block has one or two parcels, and the majority of parcels contain one stand-alone building. Average office building lot coverage is 18 percent. There is little relationship between adjacent parcels and office buildings, and the massing of development is dispersed and generally lacks visual continuity across the Project Site. Figures 3.1-1 through 3.1-3 show the existing scale, character, and location of key features on the Project Site.

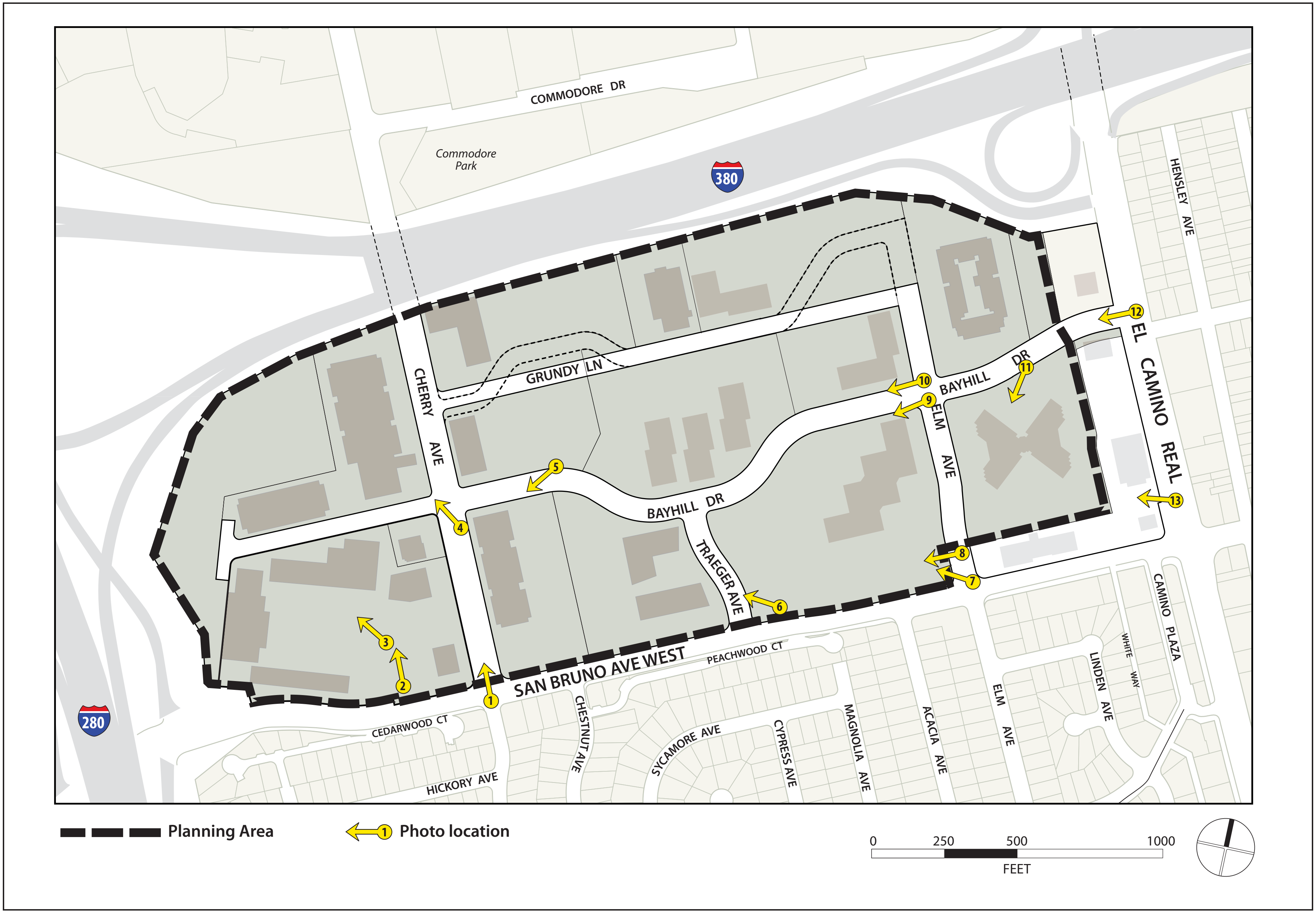
Most buildings on the Project Site were built between 1975 and 1985, with the exception of 901 Cherry Avenue (formerly Gap headquarters, and now owned by YouTube) and 850 Cherry Avenue (owned by Walmart.com), which were built in the late 1990s. The Police Credit Union building at 1250 Grundy Lane was completed in 2019.

Buildings on the Project Site are typically between one and three stories, with the exception of 901 Cherry Avenue and 850 Cherry Avenue, which are six and seven stories, respectively. Most buildings are concrete and glass. Office buildings incorporate few notable architectural features and provide little articulation at the pedestrian scale. Retail establishments are located at the Bayhill Shopping Center, an outdoor shopping center of one-story commercial properties surrounding a large parking lot.

The Project Site is typical of many office parks developed in the 1970s, with individual buildings and adjacent surface parking lots designed to be navigated by car. Nearly all buildings abut surface parking lots, with the exception of 901 Cherry Avenue, which has a rear parking structure built into the adjacent hillside, and 850 Cherry Avenue, which has a combination underground and rear-location parking structure. Many buildings are oriented to adjacent parking lots rather than adjacent streets. Some buildings are parallel to streets, some perpendicular, and some oriented at other angles with little visual continuity between them.

Office buildings are generally set back 20 to 50 feet from adjacent sidewalks, although portions of some office buildings are as close as 14 feet and as far as 70 feet. Portions of some buildings in the Bayhill Shopping Center are as close as 7 to 8 feet to the sidewalk.

Landscape features include frontage lawns, roadway medians, and parking lot islands. Landscaping is focused on screening and shading the considerable expanses of surface parking, and in general each parcel on the Project Site exhibits its own onsite landscape approach. Some include sidewalk-adjacent parking areas with perimeter landscaping and tree plantings that provide shade and screening. Some provide London Plane or Brisbane Box street trees in back-of-walk locations. Others include windbreak row-like plantings of eucalyptus and poplar trees, or screen plantings of pine and cypress trees.



Graphics ... 00389.17 (10/23/20) AB

Figure 3.1-1
Photo Locations

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

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Figure 3.1-2
Existing Photographs 1-6

Photo 7

Photo 8

Photo 9

Photo 10

Photo 11

Photo 12

Graphics ... 00389.17 (4-15-20) AB

Figure 3.1-3
Existing Photographs 7-12

Mast-arm street light fixtures are placed approximately 230 feet to 300 feet apart in a staggered, offset pattern along either side of the Project Site's roadways. Streetlights are all light-emitting diode (LED). Pedestrian-scale light fixtures are provided along the Walmart.com building frontage. Surface parking lots are well lit. Accessory light fixtures are provided at water features and above doorways on Project Site buildings. Commercial businesses at Bayhill Shopping Center provide night lighting in addition to security lights that remain illuminated in many businesses through the night.

The relatively dense, informal site landscaping creates an office park setting meant to be viewed by passing motorists and workers from inside the Project Site's office buildings. A short gateway segment of Bayhill Drive between Elm Avenue and El Camino Real, on the east side of the Project Site, includes a parkway strip planted with street trees. A double row of street trees is provided along a portion of the frontage of the Walmart.com building on Cherry Avenue. These are the only locations where street trees provide shade and serve as a buffer for pedestrians along adjacent roadways. Apart from these locations, there are no other curbside street trees or landscaped strips between the roadway and sidewalks within the Project Site.

Landscaped median islands are located along all Project Site roadways except Grundy Lane. Median plantings are mixed but have a recognizable theme, with Pittosporum trees, some London plane, flowering plum, eucalyptus, and flowering and evergreen shrubs that include *Raphiolepis* and *Agapanthus*. Clusters of large, landmark eucalyptus trees are located at Bayhill Drive/El Camino Real, in the Bayhill Drive median just east of Elm Avenue, and in scattered clumps in parking and landscape areas.

The only vacant, undeveloped parcel within the Project Site is at the northwestern corner adjacent to 901 Cherry Avenue and I-280 (Assessor's Parcel Number [APN] 020-012-160). It contains a grove of existing mature trees, the majority of which are eucalyptus, as well as a landscaped pedestrian path that winds through the property.

Existing Phase I Site

Visual Character

The Phase I Site is composed of two separate parcels, 900 Cherry Avenue (APNs 020-015-020) and 1000 Cherry Avenue (020-011-230). They are separated by Grundy Lane and bordered by Cherry Avenue to the west, I-380 to the north, Bayhill Drive to the south, and an adjacent office property to the east. The Phase I Development also proposes off-site improvements within the areas described below. These off-site improvements are outside the Phase I Site but within the overall Project Site, as shown in Figure 2-15 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR.

The building at 900 Cherry Avenue was built in 1978, includes 102,252 square feet of total building area, and is six stories high. The building at 1000 Cherry Avenue was built in 1978, includes 94,465 square feet of total building area, and is three stories high. Lot coverage is approximately 10 percent and 16 percent, respectively. Both of these buildings are oriented toward Cherry Avenue with entrances on Cherry Avenue as well as abutting rear parking lots. Neither building has distinctive architectural features, although both have some articulation at the ground level.

The parcel east of 900 Cherry contains three buildings, 1150, 1200, and 1250 Bayhill Drive, adjacent to Bayhill Drive's intersection with Traeger Avenue. Totaling 138,524 total square feet, these buildings all are three stories in height, were constructed in 1976, have the same architectural style, and have lot coverage of approximately 20 percent. Landscaped area between the buildings and along the Bayhill frontage include water features, ornamental trees, seating, and low shrubbery. The area between 1150 Bayhill Drive and 950 Elm Avenue is currently largely surface parking, with occasional shade trees.

Grundy Lane has two bends near the intersections with Cherry Avenue and Elm Avenue. Adjacent land areas contain trees and parking area screen landscaping which would be removed as part of the Phase I Development project. Similarly, the northern segment of Elm Avenue is lined with trees, landscaped frontage areas, and surface parking.

The southwest corner of 1000 Cherry Avenue contains a small landscaped plaza area for employees. Additional landscaping is located in building setbacks facing Cherry Avenue, as well as in medians within surface parking lots. This landscaping includes mostly nonnative trees (*Eucalyptus* and *Corymbia* species), small plantings, and grassy areas.

Scenic Resources and Vistas

The Phase I Site lies approximately 125 feet above mean sea level. The majority of the Phase I Site is flat with a downward slope to the east-northeast. The East Bay Hills can be seen from Grundy Lane, and views of surrounding hills and the hillside and trees behind 901 Cherry are visible from various locations. As described above, there are no designated scenic vistas or scenic resources within the Phase I Site.

Light and Glare

Existing buildings include night lighting in addition to security lights that remain illuminated through the night. Surface parking lots are well lit. Glass and reflective surfaces on buildings and vehicles, on streets, and in parking lots contribute to a limited amount of glare that is typical of a suburban office park. Due to the urbanized nature of the surrounding area, a substantial amount of ambient nighttime lighting currently exists, affecting views of the nighttime sky.

3.1.2 Environmental Impacts

This section describes the impact analysis related to visual resources for the Project. It describes the methods used to determine the impacts and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate—i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for—significant impacts accompany each impact discussion, as applicable.

3.1.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below.

- A substantial adverse effect on a scenic vista.
- Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway.
- In non-urbanized areas, substantial degradation of the existing visual character or quality of public views of the site and its surroundings. In urbanized areas, conflict with applicable zoning or other regulations governing scenic quality.
- Introduction of a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

3.1.2.2 Methodology and Approach

This analysis considers whether substantial visual impacts occur with implementation of the Project. The visual quality of an area is based on the physical appearance and characteristics of the built environment and views of public open space or of more distant landscape features such as hills, waterbodies, or built landmarks. These elements help define a sense of place and physical orientation in a larger visual setting.

Visual impacts under CEQA are of three types: impacts from a project on scenic vistas or scenic resources within a State Scenic Highway; a conflict with regulations governing scenic quality; and the degree to which a project might allow visual intrusion, such as light spillage, onto adjacent properties. As with all CEQA impacts, the effects of the Project must be considered in the physical context of the Project Site and they must be compared to existing conditions.

According to California Public Resources Code Section 21099, visual resource impacts of residential, mixed-use residential, or employment center projects on an infill site within a Transit Priority Area shall not be considered significant impacts on the environment. As illustrated on Figure 2-8 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, approximately 15 percent of the Project Site, the area between the Project Site's eastern boundary and Elm Avenue, falls within a Transit Priority Area. The project also qualifies as an "employment center project" and is located on an "infill site" as defined in Section 21099. Accordingly, potential visual resource impacts associated with development within the Transit Priority Area portion of the Project Site are not analyzed in depth. Section 21099 does not preclude the use of this provision when it applies to only a portion of a project site, nor does it preclude the use of this provision in a program EIR.

Potential impacts on visual resources in other areas are evaluated based on a site reconnaissance and project data, such as buildout projections, building sizes, and Specific Plan policies, design guidelines, and development standards. The Phase I Development is analyzed at a project level based on proposed design features and conceptual renderings, presented in Figure 2-16 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR. The analysis assumes that development occurring during Phase I Development will be subject to the Specific Plan design policies, guidelines, and standards that apply to the Project Site as a whole, and Project buildout visual impacts would not vary significantly from Phase I Development visual impacts. Visual resource impacts pertaining to the Project as a whole were analyzed using available information regarding proposed uses, including the maximum amount of square footage, floor area ratios (FARs), heights, and landscaping.

Buildout Scenario

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multifamily residential dwelling units. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multifamily residential units. ~~As seen in Table 2-5 of the Specific Plan, in~~ <u>Under</u> this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed.

The analysis of potential impacts from exterior lighting addresses both buildout scenario because in each, residential and office uses could exist in close proximity and characteristics of both residential and office-style exterior lighting would therefore be present. The Maximum Office Scenario is analyzed in terms of glare from buildings given the likelihood that office buildings will contain a higher percentage of reflective building materials, such as glass, than residential buildings.

3.1.2.3 Impacts Not Evaluated in Detail

Impacts on a Scenic Vista. A scenic vista is a location that offers a high-quality, harmonious, and visually interesting view. A scenic vista is possible from a vantage point with a broad and expansive view of a prominent landscape feature, such as a mountain range, lake, or coastline, or a significant historic or architectural feature, such as a view of a historic tower. The City does not have any officially designated scenic vistas and, given existing topography, vegetation, and height limitations of City Ordinance No. 1284, none of the view sites indicated in San Bruno General Plan Figure 2-3 would be affected by development occurring in the Project Site or the Phase I Site under either the Maximum Housing Scenario or Maximum Office Scenario.

Given the City's lack of officially designated scenic vistas and the fact that none of the view sites indicated in the San Bruno General Plan would be affected by development occurring in the Project Site or the Phase I Site, the Project would result in ***no impact*** on a scenic vista. This impact is not evaluated further.

Impacts on Scenic Resources, including those within a State Scenic Highway. The Project would not substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. The closest State Scenic Highway, as designated by Caltrans, is I-280, which is adjacent to the Project Site to the west. The segment of I-280 adjacent to the Project Site is at a higher elevation and is screened by vegetation. Therefore, ***no impact*** related to scenic resources, including those within a State Scenic Highway corridor, would occur. This impact is not evaluated further.

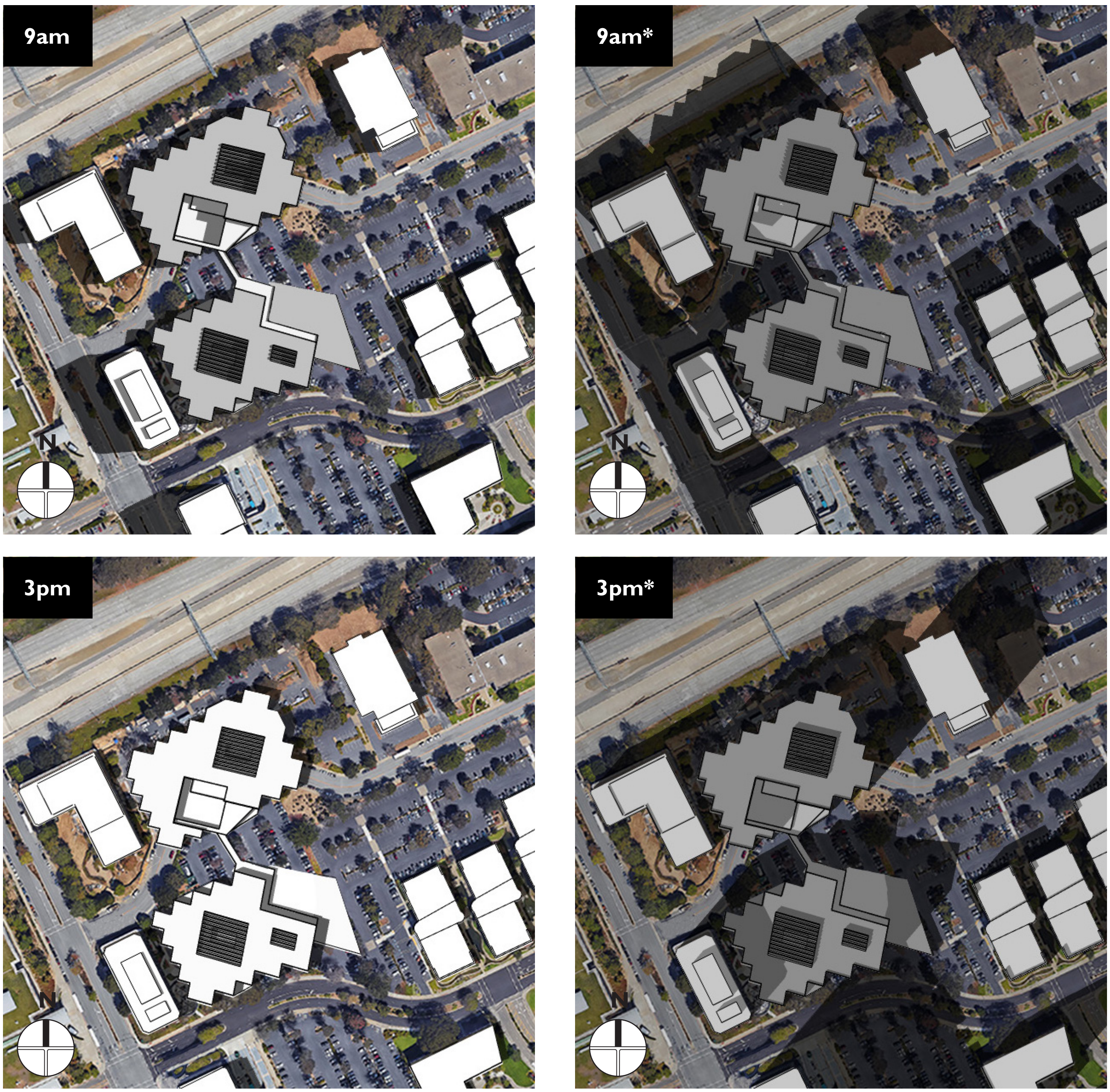
Shadow Study

As previously noted, the City has elected to include a shadow study in this ~~Draft~~ EIR in response to a comment received during the community outreach effort. The comment was received separately from the CEQA scoping effort, and shading is outside the scope of the significance criteria outlined above. Accordingly, this analysis is provided for informational purposes only, and a determination of significance under CEQA is not necessary.

The shadow study was conducted to ascertain the shading effects, if any, likely to occur as a result of the completion of the Phase I Development. The results of that study are included here as background information. Simulations of shadow patterns were created for the summer and winter solstices at 9 a.m. and 3 p.m. to observe a full year's range of shadow extent and location. As seen on Figure 3.1-4 below, it was observed that Phase I Development buildings would generally shade each other, with no significant shading occurring on neighboring developments. However, on the winter solstice beginning at approximately 3 p.m. (with sunset at approximately 5 p.m.), the North Building would cast shadow onto the Police Credit Union building, covering portions of the ground floor (approximately 11 feet from grade) on the southwest-facing façade. This represents the worst or most extreme shadow scenario, and would be for a relatively limited duration.

Summer Solstice (June 21st)

Winter Solstice (December 21st)



*Accounting for daylight savings.

Graphics ... 00389.17 (4-15-20) AB

Figure 3.1-4
Phase I Development Shadow Study

3.1.2.4 Impacts and Mitigation Measures

Impact AES-1a. The Project would not conflict with plans, policies, or regulations governing scenic quality (Project: Less Than Significant Impact).

Impact AES-1b. The Phase I Development would not conflict with plans, policies, or regulations governing scenic quality (Phase I Development: Less Than Significant Impact).

The Project is in an urbanized area in the City of San Bruno. As discussed under *Buildout Scenario,* above, this analysis accounts for both the Maximum Housing and Maximum Office Scenarios. Both buildout scenarios would be subject to existing height restrictions per Ordinance No. 1284.

More than doubling the amount of development in the Project Site within the envelope of Ordinance No. 1284's three-story/50-foot height limit would create a Project Site that is significantly more densely built at the ground level than it is today. The extent and scope of onsite views would be reduced by the replacement of landscaped parking lots with buildings. Building floor areas, lot coverages, and overall building mass would increase.

The Specific Plan contains a more comprehensive set of urban design policies, guidelines, and regulatory standards to address visual resources related to the Project Site than provided by existing City policies and regulations. Among other elements, the Specific Plan provides for attractive and publicly accessible open spaces; policies and guidelines for building orientation and design for office, hotel, and residential development; streetscape design; potential civic use on San Bruno Avenue; and potential mixed-use development at the Bayhill Shopping Center.

Under the Specific Plan, the large parking lots that line most of Bayhill's streets would be replaced by new office buildings with underground parking. The Specific Plan contains policies and guidelines to ensure that new onsite landscaping and frontage designs contribute to an "enhanced pedestrian environment." Continuous curbside street trees, pedestrian-oriented lighting, curbside planters, and repaved sidewalks would contribute to an improved visual experience, particularly for those biking and walking.

The Specific Plan features Greenways—linear, publicly accessible and useable open spaces located on private land—as a defining urban design element. These Greenways are planned to extend along portions of Bayhill Drive, Traeger Avenue, and Elm Avenue. Greenways are intended to be attractive walking and sitting areas, accessible and inviting to the public and distinct from adjacent private development. Greenways may incorporate expansive landscaped areas as well as public sidewalks, benches, lighting, public art, and other amenities, as appropriate. In various locations, Greenways would be expanded and/or configured to accommodate larger publicly useable spaces, with a variety of types of seating, turf areas, special site lighting, water features, and other elements designed to create a memorable public place.

The Specific Plan promotes a variety of open space types. Some, such as the Greenways, enhanced pedestrian environment street frontages, and plazas, are to be publicly accessible. Others, such as internal building courtyards, are private. The Specific Plan encourages secured private spaces and through-building ways to link to public sidewalks, Greenways, and other public spaces as part of a network of attractive pedestrian circulation routes. Up to four private-access pedestrian bridges over public streets are permitted on a case-by-case basis to connect buildings owned by YouTube. The Specific Plan contains policies to limit the visual impacts of these bridges.

The Specific Plan requires that a small, publicly accessible plaza be provided at 900 Cherry Avenue, adjacent to the corner of Cherry Avenue and Grundy Lane. It is envisioned as a local gathering spot, part of a chain of destinations along Cherry Avenue that include Bayhill Shopping Center and Commodore Park, to link existing neighborhood areas north and south of the Project Site. Similar to the Greenways, Cherry Avenue Plaza would be a privately owned public open space.

To create the enhanced pedestrian environment and green, non-urban character of development that are important Specific Plan goals, new buildings would provide architectural interest as well as significant frontage landscaping. New buildings would be complementary to one another in terms of overall form and massing, fenestration, rooflines, and other major architectural elements. Offsets and breaks in building façades are required to reduce the visual impact of long building frontages, and street-facing building entrances and courtyards, transparent first floor spaces, and amenities such as benches for public use are encouraged to enliven street frontages. Front setback requirements are based on the amount of landscape area, allowing for variations in the setback distance from adjacent public sidewalks. Frontage landscaping, particularly for areas above subsurface parking garage areas, would be designed and planted to appear as part of the natural landscape.

Residential development along the San Bruno Avenue frontage could occur in combination with office buildings and parking areas, or as part of complete site redevelopment. If developed, new residential buildings would face San Bruno Avenue, with attractive architectural forms to complement single-family homes across the street. Front porches, stoops, balconies, terraces, and other features are encouraged to enliven the frontage, and bike lanes, a curbside planting strip, street trees, widened sidewalk, and landscaped setbacks would be provided to make San Bruno Avenue more attractive to walk, bike, and live along. Policies require that, if developed, a new civic use should be attractive and present an open, accessible, public character along San Bruno Avenue.

Mixed-use development at the Bayhill Shopping Center is envisioned as pedestrian oriented, with active ground-floor uses, public gathering spaces, and bicycle- and pedestrian-oriented amenities. The Specific Plan allows for either horizontal or vertical mixed-use—i.e., standalone residential and commercial buildings, or single buildings with residential units above first floor commercial space. First floor commercial spaces would create a “main street” frontage, with attractive storefronts, display windows, and sidewalk café spaces.

Phase I Development would introduce changes to the visual character of the Project Site, including realignment of Grundy Lane and removal of three office buildings and landscape improvements and their replacement with temporary parking at 1150–1250 Bayhill Drive. Phase I Development would also require the removal of approximately 135 heritage trees, as discussed in Chapter 3, *Introduction to Analysis*, of this document.

Consistency assessments with applicable regulations that govern visual quality of the Project Site are provided below.

City of San Bruno General Plan

The Project’s consistency with the General Plan is discussed in Section 3.6, *Land Use and Planning*.

City of San Bruno Zoning Ordinance

Project

The San Bruno Zoning Ordinance controls development through the establishment of zoning districts and accompanying visual resource–related standards for development such as height, bulk, setback, lot coverage, and landscaping. The majority of the Project Site is currently zoned Planned Development, which is intended to support a mix of unusual density, building intensity, and design that will produce an environment superior to that which would otherwise result from the application of basic zoning regulations.

The Project would be accompanied by new zoning districts; the Bayhill Regional Office (BRO) and Bayhill Neighborhood Commercial districts are described in detail in Chapter 2, *Project Description*, and Section 3.6, *Land Use and Planning*. The project implementation program includes initiation of zoning amendments to implement the policies of the Specific Plan and reconcile inconsistencies between the current Zoning Ordinance and the Specific Plan.

Specific Plan policies call for building massing that is responsive to site context and does not present a bulky or box-like appearance. Specific Plan policies, and the Zoning Ordinance amendments intended to implement them, ensure that the densely built environment that results from Project implementation is consistent with Specific Plan objectives for an attractive, pedestrian-oriented scale of development and public realm. For office development in particular, building forms, architectural features, and dense frontage landscaping would be designed to reduce the visual impact of long building frontages along streets and adjacent to pedestrian spaces.

The proposed Zoning Ordinance controls building massing and character by setting maximum FARs, building heights, building footprints, building lengths, and lengths of continuous building mass; and minimum setbacks. The proposed Zoning Ordinance imposes standards regarding landscaped area and tree coverage.

The Specific Plan policies and proposed Zoning Ordinance amendments that implement those policies would promote an attractive, pedestrian-oriented Project Site, and are more comprehensive than those that currently exist. Visual resource impacts would therefore be ***less than significant***. No mitigation measures are required.

Phase I Development

The Phase I Development falls within the proposed BRO zoning district. Upon adoption, the Phase I Development would be subject to regulations and policies described above to promote an attractive, pedestrian-oriented environment, including minimum lot size; maximum FAR, building height, and building length; and landscaping. The BRO district requires that development be attractive, with prominent, properly scaled, and protected entrances; contemporary design; breaks in building façade; and ground-floor transparency. As seen in Figure 2-16 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Phase I Development would generally conform to these zoning standards regarding visual quality.

FARs of the Phase I Development are 1.6 for the North site and 1.9 for the South site. Each of the two new buildings would be three stories, reaching a maximum height of 50 feet. Phase I Development buildings are designed to allow for variable setbacks and visual interest along the street. The proposed setbacks at each of the building edges would vary from 10 feet from 45 feet from the sidewalk.

The BRO district imposes standards regarding landscaped area and tree coverage. The Phase I Development landscape plan includes publicly visible landscape areas with hardscape and softscape elements. The majority of the onsite landscaping would be built on top of a sub-grade parking structure, and the planting areas, paving, and topography above would be designed to appear natural and consistent with at-grade landscaping.

The Phase I Development plan was developed in consultation with City staff as the Specific Plan draft policies and Zoning Ordinance regulations were developed and is generally in conformance with the visual character established in the Specific Plan. Prior to final approval, the Phase I Development would be subject to standard City review procedures that ensure conformance with the Zoning Ordinance and the Specific Plan.

The Phase I Development must be found to be consistent with proposed Specific Plan–based zoning regulations regarding building height, bulk, lot coverage, and landscaping and other regulations and policies promoting visual quality. Phase I Development visual resource impacts are therefore deemed ***less than significant***. No mitigation measures are required.

Ordinance No. 1284

Project

While it includes provisions limiting building heights, Ordinance No. 1284 is a growth control measure and not a regulation governing scenic quality at the Project Site. Nonetheless, an evaluation of the Project's consistency with Ordinance No. 1284 is provided for informational purposes.

The Specific Plan maintains existing building height restrictions on the Project Site pursuant to Ordinance No. 1284, with a maximum height of 50 feet or three stories. Ordinance No. 1284 effectively results in compressing buildings in the Project Site into larger floor areas and greater lot coverages than comparable square-foot buildings would have with a higher height limit. Specific Plan policies ensure that the densely built environment that results is consistent with objectives for an attractive, pedestrian-oriented scale of development and public realm. For office development, building forms, architectural features, and dense frontage landscaping would be designed to reduce the visual impact of long building frontages adjacent to streets and pedestrian spaces. Site landscaping would also be used to make areas above underground garages appear natural, especially along street frontages and in the narrow property line setback spaces between buildings.

The roadways that Ordinance No. 1284 highlight for protection of scenic quality are not adjacent to the Project Site. These are Crystal Springs Road between Oak Avenue and Junipero Serra Freeway, and Sneath Lane from El Camino Real to existing westerly City limits.

Given the Specific Plan's continued adherence to Ordinance No. 1284 and measures implemented in the Specific Plan to maintain a high-quality visual resources environment, impacts associated with inconsistency with Ordinance No. 1284 would be ***less than significant***. No mitigation measures are required.

Phase I Development

The Phase I Development would construct new buildings totaling approximately 440,000 square feet of office and accessory space, with a FAR on the two parcels of 1.6 and 1.9. Each of the buildings would be three stories with a maximum height of 50 feet. All development occurring as part of Phase I Development would thus be consistent with the Ordinance No. 1284 and impacts related to conflicts would therefore be ***less than significant***. No mitigation measures are required.

City of San Bruno Municipal Code Heritage Trees Ordinance

Project

Any heritage trees and street trees that are removed must be replaced in accordance with Municipal Code requirements; in the case of street trees, in-lieu fees may be paid. Heritage trees and street trees are located throughout the Project Site. It is unknown how many heritage trees would be affected by the implementation of the Specific Plan across the entirety of the Project Site because precise development plans have not prepared for every parcel. The Project would be required to comply with all applicable Municipal Code requirements related to the removal and replacement of heritage trees and street trees, including securing necessary permits. In addition, the Specific Plan calls for significantly enhanced streetscapes within and around the Project Site, with many more street trees than currently exist.

No element of the Specific Plan presents a conflict with the Heritage Trees Ordinance, and impacts associated with incompatibility with this ordinance would therefore be ***less than significant***. No mitigation measures are required. Biological effects of tree removal are addressed in Chapter 3, *Environmental Impact Analysis*.

Phase I Development

The Phase I Development would require the removal of approximately 135 heritage trees as well as a number of street trees. In accordance with the City's Municipal Code requirements, new trees would be planted in a 1:1 ratio to compensate for the trees to be removed, and the Specific Plan calls for the use of large canopy trees as the predominant plant material. Phase I Development impacts related to conflicts with the Heritage Trees Ordinance would therefore be ***less than significant***. No mitigation measures are required. Biological effects of tree removal are addressed in Chapter 3, *Environmental Impact Analysis*.

Conclusion

Project

As described above, the Project would not conflict with existing zoning or other regulations governing scenic quality. Where the Project would establish new zoning or other regulations governing scenic quality, no adverse visual impacts would occur. New Specific Plan policies and regulations would improve upon the policies and regulations that currently exist. Therefore, scenic quality–related impacts associated with the Project would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development on scenic quality would be the same as those of the Project as a whole because the Phase I Development would be governed by and consistent with the Specific Plan. Therefore, scenic quality–related impacts associated with the Phase I Development would be ***less than significant***. No mitigation measures are required**.**

Impact AES-2a. The Project would not introduce new sources of substantial light or glare that would adversely affect daytime or nighttime views in the area (Project: Less Than Significant Impact).

Impact AES-2b. The Phase I Development would not introduce new sources of substantial light or glare that would adversely affect daytime or nighttime views in the area (Phase I Development: Less Than Significant).

As discussed under *Buildout Scenario,* above, this analysis accounts for exterior light impacts under both the Maximum Office Scenario or Maximum Residential Scenario, because either scenario would result in the introduction of new nighttime light sources such as vehicle headlights, security lighting, and interior light from buildings. The Maximum Office Scenario is analyzed as the "worst case" in terms of glare from buildings because office buildings typically have a higher percentage of reflective building materials and more visible interior lighting than residential buildings.

Project

Interior and Exterior Lighting

Exterior lighting would be added throughout the Project Site. Interior and exterior lighting sources would be added to office and/or potential residential development along San Bruno Avenue and Cherry Avenue. New development would result in nighttime lighting from an increased number of vehicles belonging to both office users and new residents, parking lots, security lighting, and the interior illumination of buildings. Increased lighting could affect residents in the neighborhood adjacent to the site on the south side of San Bruno Avenue. Additional lighting on San Bruno Avenue could also be a nuisance or distraction to motorists.

New development would be required to comply with the Specific Plan policies regulating exterior lighting to prevent night sky light pollution and avoid glare and light spillage onto adjacent buildings and properties. The Specific Plan contains policies that require new development to reduce light and glare impacts. These are Policies 3-17, 3-20, and 3-26, which require shielding light and glare from exterior site lighting, shielding internal building lighting, and minimizing the reflectivity of building wall surfaces and glazing, respectively. While lighting in the area would increase with additional development, lighting-related impacts associated with the Project would therefore be ***less than significant***. No mitigation measures are required.

Glare from Buildings

Glare is caused by light reflections from pavement, vehicles, and building materials, such as reflective glass and polished surfaces, as well as interior building lighting light sources. During daylight hours, the amount of reflected glare depends on the intensity and direction of sunlight. Glare can create hazards to motorists and be a nuisance for bicyclists, pedestrians, and other sensitive viewers. With implementation of the Project, highly reflective surfaces on new office buildings adjacent to San Bruno Avenue within the Project Site could create impacts along San Bruno Avenue, the nearest arterial roadway per the San Bruno General Plan.

The specific types of building materials and glass surfaces that would be used in future development on the Project Site are unknown. However, Specific Plan Policy 3-26 requires that buildings incorporate non-reflective materials and anti- reflective glass to minimize glare, and Specific Plan Policies 3-17 and 3-20 require that interior and exterior lighting be shielded and/or diffused to minimize light spill. Glare-related impacts associated with the Project would therefore be ***less than significant***. No mitigation measures are required.

Vehicle Headlights and Illuminated Signage

The Project Site includes existing surface parking lots for office uses. New development is planned to include underground parking for office uses, with subsurface parking also recommended for residential uses. New trees and other landscaping would be required for any new surface parking lots, preventing vehicle headlight spillage. New surface parking would be located to the side and rear of buildings, including those facing San Bruno Avenue and Cherry Avenue, further reducing lighting impacts. The Specific Plan street frontage landscape requirements per Policy 3-2, combined with the fact that new development likely must incorporate underground parking to be feasible, will minimize light and glare from vehicle headlights.

The proposed traffic signal would be installed in accordance with the Federal Highway Administration (FHWA)'s Manual on Uniform Traffic Control Devices for Streets and Highways, published under 23 Code of Federal Regulations (CFR), Part 655, Subpart F. The Manual includes requirements for the size, illumination, and shielding of traffic signals to ensure the safety of approaching motorists. Adherence to these standards would ensure that light and glare impacts on motorists and adjacent residential uses would be less than significant.

Design guidelines for signage are to be implemented per Chapter 12.104 of the San Bruno Municipal Code, which addresses building identification signage and other signage. Implementation of the Specific Plan would include the development of a wayfinding program, to apply to the entirety of the Project Site for wayfinding signage. The final signage program would be approved by the City per Zoning Code requirements to minimize lighting and glare impacts. Light and glare impacts from vehicle headlights within aboveground parking lots and from signage would be ***less than significant***. No mitigation measures are required.

Phase I Development

Exterior and Interior Lighting

Exterior architectural, open space/landscaping, and office interior signage lighting would be part of the Phase I Development. Exterior lighting would enhance the safety and security of pedestrians throughout open space and landscape areas, highlighting wayfinding elements. All exterior light fixtures would be exterior rated Ingress Protection (IP) 65[1] or better with dimming controls when available. Per the Specific Plan, outdoor lighting would comply with Title 24, California Green Building Standards Code outdoor lighting requirements for non-residential occupancies, and all Dark Sky Initiatives applicable to San Bruno. Additionally, roadway lighting would comply with San Bruno lighting standards for fixture selection and illumination requirements.

While new Phase I Development buildings would result in an increase of lighting in the area, the Phase I Site exists within an urbanized area with substantial existing ambient nighttime lighting. Lighting would also be subject to proposed Specific Plan policies that require lighting be shielded and/or otherwise designed to direct light downward to minimize glare and night sky light pollution. Lighting-related impacts associated with Phase I Development would therefore be ***less than significant***. No mitigation measures are required.

Glare from Buildings

As shown on Figure 2-16 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the proposed building façades would include a high percentage of glass. However, proposed building façades and glass window panels would be required to be consistent with the Specific Plan policies and design guidelines to limit the impacts of glare. This impact would therefore be ***less than significant***. No mitigation measures are required.

Vehicle Headlights and Illuminated Signage

Phase I Development would replace existing surface parking lots with underground garages, and the light and glare from surface parking would be reduced. Phase I development would also be required to comply with proposed Specific Plan policies regulating light and glare.

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1 Ingress Protection (IP) refers to standard used for the level of sealing effectiveness for electrical enclosures. IP 65 is the rating recommended for security lighting placed in an unprotected area where it could be exposed to water and dust.

Signage for the Phase I Development would include up to 225 square feet of signage per building frontage and would serve primarily as a means of identification and wayfinding. While the majority of signage would be attached to the North Building and the South Building, monument or pole signage could also be used. All Phase I signage shall be consistent with all aspects of the Zoning Code.

Therefore, impacts related to vehicle headlights and illuminated signage would be ***less than significant.*** No mitigation measures are required.

Conclusion

Project

As described above, the Project would not generate excessive light levels from interior and exterior lighting, vehicle headlights, or illuminated signage. Project buildings would not generate excessive glare. Therefore, light and glare impacts associated with the Project would be ***less than significant***. No mitigation measures are required.

Phase I Development

As described above, the Phase I Development would not generate excessive light levels from interior and exterior lighting, vehicle headlights, or illuminated signage. Phase I Development buildings would not generate excessive glare. Therefore, light and glare impacts associated with the Phase I Development would be ***less than significant***. No mitigation measures are required.

3.1.3 Cumulative Impacts

The context for cumulative visual resource impacts consists of areas that have views of the Project Site, and any Project Site conflicts with regulations governing scenic quality. Nearby cumulative impact–related projects are depicted on Figure 3.0-1 in Chapter 3, *Environmental Impact Analysis*, of this ~~Draft~~ EIR. Some current projects are not included in the cumulative impacts analysis because distance, intervening development, and/or landscaping creates effective visual separation.

Cumulative impacts are those that would result from the Project combining with other development to exceed thresholds for a visual resources impact, whether it be less than significant, significant, or significant and unavoidable. If the cumulative Project-related condition would not result in an impact with respect to a particular threshold, it would not contribute to a cumulative impact.

Within the Project Site itself, office development on the vacant YouTube-owned parcel west of 901 Cherry Avenue (Parcel 5, APN 020-012-160 on Figure 3.0-1), may proceed under an existing development agreement and prior CEQA clearance, or under the Specific Plan. Therefore, this project is conservatively considered as both a cumulative project and as part of Specific Plan buildout. Other development projects include the 841 San Bruno Avenue medical office adjacent to the Project Site, the Plaza Apartments mixed-use development at 406 San Mateo Avenue, the Skyline College Residential Project at 3300 College Drive, Mills Park Plaza at 715 El Camino Real, Glenview Terrace at 2880 San Bruno Avenue West, a hotel development at 160 El Camino Real, and mixed-use and residential developments at 271 El Camino Real, 111 San Bruno Avenue, and 500 Sylvan Avenue. None of these of these projects are large enough and/or close enough to the Project Site to contribute to cumulative visual resource impacts.

The Project would have no impact related to scenic resources along a State Scenic Highway or scenic vistas, as discussed above in Section 3.1.2.3, *Impacts Not Evaluated in Detail*. Therefore, these topics are not considered for cumulative impacts. This cumulative analysis examines the effects of the Project in the relevant geographic area in combination with other current projects, probable future projects, and projected future growth.

C-AES-1a. The Project, in combination with past, present, and reasonably foreseeable future projects, would not conflict with zoning or other regulations governing scenic quality (Project: Less Than Significant).

C-AES-1b. The Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not conflict with zoning or other regulations governing scenic quality (Phase I Development: Less Than Significant).

Project

The consistency of cumulative projects with zoning or other regulations governing scenic quality would be assessed on a case-by-case basis. Only other projects within the Project Site could combine with the Project to cumulatively conflict with zoning or other regulations governing scenic quality. Per Table 3.0-1 and Figure 3.0-1, only the vacant parcel west of 901 Cherry Avenue is in this category. As noted above, this project could be constructed under an existing development agreement; if the development agreement expires, it could be developed as part of buildout under the Project. Therefore, it is evaluated in the EIR as both a component of the Project and a cumulative project.

There are no officially designed scenic vistas within the City of San Bruno; this development would therefore have no cumulative impact on the visibility and accessibility of scenic vistas. This parcel is sufficiently far from the Phase I Development buildings, with 901 Cherry Avenue in between, that cumulative visual resource impacts would be negligible. Development on the Project Site would be subject to the City's Heritage Tree Ordinance, which would protect the integrity of the Project Site's scenic quality in keeping with site's existing character as a developed office park. Therefore, cumulative impacts of the proposed Project related to scenic quality, in combination with the reasonably foreseeable future projects, would not result from conflict with zoning or other regulations and would therefore be ***less than significant***. No mitigation measures are required.

Phase I Development

Only projects within the Phase I Site could combine with the Phase I Development to conflict with zoning or other regulations governing scenic quality. Per Table 3.0-1 and Figure 3.0-1, no cumulative projects fall within the Phase I Site. Therefore, cumulative impacts of the proposed Phase I Development related to scenic quality, in combination with reasonably foreseeable future projects, would not result from conflict with zoning or other regulations and would therefore be ***less than significant***. No mitigation measures are required.

C-AES-2a. The Project, in combination with past, present, and reasonably foreseeable future projects, would not introduce new source of substantial light or glare that would adversely affect daytime or nighttime views in the area (Project: Less Than Significant).

C-AES-2b. The Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not introduce new source of substantial light or glare that would adversely affect daytime or nighttime views in the area (Phase I Development: Less Than Significant).

Project

Other development visible with the Project could include direct illumination of project structures, interior features, parking lots, and/or walkways and an increase in ambient nighttime lighting levels in the area. These include the development within the vacant parcel west of 901 Cherry Avenue, the 841 San Bruno Avenue West office development, and the Mills Park Plaza mixed-use residential and retail development. These projects would include direct illumination of project structures, features, parking lots, and/or walkways, as well as interior illumination, particularly for residential uses at nighttime. These projects would also result in increased light and glare from vehicle headlights, and could contribute to a cumulative lighting impact. Building surfaces related to office development could also increase glare if they are reflective or if the structures contain large expanses of windows.

Other than the parcel west of 901 Cherry Avenue, these projects are sufficiently far from the Project Site to ensure that cumulative light and glare impacts would be minimal. Additionally, these projects involve redevelopment of urban sites that already generate light and glare, and the land uses proposed are not anticipated to be particularly light intensive. If developed under the existing development agreement, the development west of 901 Cherry Avenue would not be expected to combine with other development within the Specific Plan and result in substantial light and glare impacts given its size and similar character to surrounding office development. It is also anticipated that the project would incorporate standard light-shielding design features and low-level security lighting. Overall, cumulative development is not anticipated to dramatically increase nighttime lighting and glare in the area compared to current conditions.

Therefore, cumulative impacts of the proposed Project related to glare and views, in combination with reasonably foreseeable future projects, would be ***less than significant***. No mitigation measures are required.

Phase I Development

Development could include direct illumination of project structures, window glare, interior features, parking lots, and/or walkways as noted above, and increase ambient nighttime lighting levels in the area. Development of the vacant parcel west of 901 Cherry Avenue would be the most likely to contribute to cumulative light and glare impacts. However, this parcel is sufficiently far from the Phase I Development buildings, with the existing 901 Cherry Avenue building in between, that cumulative light or glare impacts would be negligible. It is also anticipated that the project would incorporate standard light-shielding design features and low-level security lighting.

Therefore, cumulative impacts of the Phase I Development related to nighttime glare and views in combination with the reasonably foreseeable future projects would be ***less than significant***. No mitigation measures are required.

3.1.4 References Cited

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California Department of Transportation. 2011. "Officially Designated State Scenic Highways." Available: http://www.trpa.org/documents/rseis/3.9%20Scenic/3.9_Caltrans%202010_Officially%20Designated%20Scenic%20Highways.pdf. Accessed: January 30 2020.

3.2 Air Quality

This section describes the environmental and regulatory setting for air quality in the City of San Bruno as it pertains to the Bayhill Specific Plan and Phase I Development (Project). It also describes the air quality impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ Environmental Impact Report (EIR), the Project comprises the Specific Plan and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level, and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described. Appendix 3.2-1 presents supporting air quality calculations for the impact analysis, as referenced further below.

Issues identified in response to the Notice of Preparation (NOPs) (Appendix 1) and revised NOP were considered in preparing this analysis. The NOP comments pertaining to air quality include a recommendation by the Sierra Club to incorporate trees and shrubs into the project design. This issue is addressed below in Section 3.2.2.3, *Impacts and Mitigation Measures*, under Impact AQ-1.

3.2.1 Existing Conditions

3.2.1.1 Regulatory Setting

The federal Clean Air Act (CAA) and its subsequent amendments form the basis for the nation's air pollution control effort. The U.S. Environmental Protection Agency (EPA) is responsible for implementing most aspects of the CAA. A key element of the CAA is the National Ambient Air Quality Standards (NAAQS) for criteria pollutants. The CAA delegates enforcement of the NAAQS to the states. In California, the California Air Resources Board (CARB) is responsible for enforcing air pollution regulations and ensuring the NAAQS and California Ambient Air Quality Standards (CAAQS) are met. CARB, in turn, delegates regulatory authority for stationary sources and other air quality management responsibilities to local air agencies. The Bay Area Air Quality Management District (BAAQMD) is the local air agency for the Project area. The following sections provide more detailed information on federal, state, and local air quality regulations that apply to the Project.

Federal

Clean Air Act and National Ambient Air Quality Standards

The CAA was first enacted in 1963 and has been amended numerous times in subsequent years (1965, 1967, 1970, 1977, and 1990). The CAA establishes federal air quality standards, known as NAAQS, for six criteria pollutants and specifies future dates for achieving compliance. The CAA also mandates that the states submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. Table 3.2-1 shows the NAAQS currently in effect for each criteria pollutant, as well as the CAAQS (discussed further below).

Table 3.2-1. Federal and State Ambient Air Quality Standards

			National Standards[a]	
Criteria Pollutant	**Average Time**	**California Standards**	**Primary**	**Secondary**
Ozone	1-hour	0.09 ppm	None[b]	None[b]
	8–hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM10)	24-hour	50 μg/m³	150 μg/m³	150 μg/m³
	Annual mean	20 μg/m³	None	None
Fine Particulate Matter (PM2.5)	24-hour	None	35 μg/m³	35 μg/m³
	Annual mean	12 μg/m³	12.0 μg/m³	15 μg/m³
Carbon Monoxide	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide[c]	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 μg/m³	None	None
	Calendar quarter	None	1.5 μg/m³	1.5 μg/m³
	3-month average	None	0.15 μg/m³	0.15 μg/m³
Sulfates	24-hour	25 μg/m³	None	None
Visibility-reducing Particles	8-hour	-[d]	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Source: California Air Resources Board 2016a.

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

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

[c] The annual and 24-hour NAAQS for SO_2 only apply for 1 year after designation of the new 1-hour standard to those areas that were previously in nonattainment for 24-hour and annual NAAQS.

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

ppm= parts per million; μg/m³ = micrograms per cubic meter; NAAQS = National Ambient Air Quality Standard; SO_2 = sulfur dioxide; CAAQS = California Ambient Air Quality Standard

Non-road Diesel Rule

EPA has established a series of increasingly strict emission standards for new off-road diesel equipment, on-road diesel trucks, and locomotives. New equipment used within the Project Site, including heavy-duty trucks and off-road construction are required to comply with these emission standards.

Corporate Average Fuel Economy Standards

The Corporate Average Fuel Economy Standards (CAFE) were first enacted in 1975 to improve the average fuel economy of cars and light duty trucks. The National Highway Traffic Safety Administration (NHTSA) sets the CAFÉ standards, which are regulatory updated to require additional improvements in fuel economy. The standards were last updated in October 2012 to apply new passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2017 through 2025, and are equivalent to 54.5 miles per gallon. However, On August 2, 2018, NHTSA and EPA proposed to amend the fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is consider part 1 of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA/NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards, specifically by 1) clarifying that federal law preempts state and local tailpipe GHG standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set state-specific standards.

USEPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 Fed. Reg. 51310). The agencies also announced that they will later publish the second part of the SAFE Vehicles Rule (i.e., the standards). California, 22 other states, the District of Columbia, and two cities filed suit against the proposed One National Program Rule on September 20, 2019 (California et al. v. United States Department of Transportation et al., 1:19-cv-02826, U.S. District Court for the District of Columbia). The lawsuit requests a "permanent injunction prohibiting Defendants from implementing or relying on the Preemption Regulation," but does not stay its implementation during legal deliberations. Part 1 of the SAFE Vehicles Rule went into effect on November 26, 2019 and Part 2 went into effect on March 30, 2020. The SAFE Vehicles Rule will decrease the stringency of CAFÉ standards to 1.5 percent each year through model year 2026, as compared with the standards issued in 2012, which would have required about 5 percent annual increases.

State

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the state legislature adopted the California Clean Air Act (CCAA), which established a statewide air pollution control program. The CCAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the CAA, the CCAA does not set precise attainment deadlines. Instead, the CCAA establishes increasingly stringent requirements for areas that will require more time to achieve the standards. CAAQS are generally more stringent than NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The CAAQS and NAAQS are shown in Table 3.2-1.

CARB and local air districts bear responsibility for meeting the CAAQS, which are to be achieved through district-level air quality management plans incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

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

Statewide Truck and Bus Regulation

Originally adopted in 2005, the on-road truck and bus regulation requires heavy trucks to be retrofitted with particulate matter filters. The regulation applies to privately and federally owned diesel-fueled trucks with a gross vehicle weight rating greater than 14,000 pounds. Compliance with the regulation can be reached through one of two paths: (1) vehicle retrofits according to engine year or (2) phase-in schedule. Compliance paths ensure that by January 2023, nearly all trucks and buses will have 2010 model year engines or newer.

State Tailpipe Emission Standards

Like EPA at the federal level, CARB has established a series of increasingly strict emission standards for new off-road diesel equipment, on-road diesel trucks, and harbor craft operating in California. New equipment used to construct the Project would be required to comply with the standards.

Carl Moyer Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership between CARB and the local air districts throughout the state to reduce air pollution emissions from heavy-duty engines. Locally, the air districts administer the Carl Moyer Program.

Toxic Air Contaminant Regulations

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

CARB has identified diesel particulate matter (DPM) as a TAC and has approved a comprehensive Diesel Risk Reduction Plan (2000) to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan is to reduce DPM emissions and the associated health risk by 75 percent by 2010 and by 85 percent by 2020. The plan identifies 14 measures to be implemented by CARB to reduce DPM. The Project would be required to comply with any applicable diesel control measures from the Diesel Risk Reduction Plan.

Local

Bay Area Air Quality Management District

At the local level, responsibilities of air quality districts include overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality–related sections of environmental documents required by CEQA. The air quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and for ensuring that NAAQS and CAAQS are met.

The Project falls under the jurisdiction of the BAAQMD. The BAAQMD has local air quality jurisdiction over projects in the San Francisco Bay Area Air Basin (SFBAAB) including San Mateo County. BAAQMD developed advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions, which are outlined in its *California Environmental Quality Act Air Quality Guidelines* (CEQA Guidelines) (Bay Area Air Quality Management District 2017a). BAAQMD has also adopted air quality plans to improve air quality, protect public health, and protect the climate, including the *2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan) (Bay Area Air Quality Management District 2017b).

The 2017 Clean Air Plan was adopted by the BAAQMD on April 19, 2017. The 2017 Clean Air Plan updates the prior 2010 Bay Area ozone plan and outlines feasible measures to reduce ozone; provides a control strategy to reduce particulate matter, air toxics, and greenhouse gases (GHGs) in a single, integrated plan; and establishes emission control measures to be adopted or implemented. The 2017 Clean Air Plan contains the following primary goals. Consistency with these goals is evaluated in this chapter.

- Protect Air Quality and Health at the Regional and Local Scale: Attain all state and national air quality standards, and eliminate disparities among Bay Area communities in cancer health risk from TACs; and
- Protect the Climate: Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. The 2017 Clean Air Plan is the most current applicable air quality plan for the air basin. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of an air quality plan.

In addition to air quality plans, BAAQMD also adopts rules and regulations to improve existing and future air quality. The Project may be subject to the following district rules.

- **Regulation 2, Rule 2 (New Source Review)**—This regulation contains requirements for Best Available Control Technology and emission offsets.
- **Regulation 2, Rule 5 (New Source Review of Toxic Air Contaminates)**—This regulation outlines guidance for evaluating TAC emissions and their potential health risks.
- **Regulation 6, Rule 1 (Particulate Matter)**—This regulation restricts emissions of particulate matter (PM) darker than No. 1 on the Ringlemann Chart to less than 3 minutes in any 1 hour.
- <u>**Regulation 6, Rule 6 (Prohibition of Trackout)**—This regulation prohibits trackout for construction sites where the total land area covered by construction activities and/or disturbed surfaces at the site are one acre or larger.</u>
- **Regulation 7 (Odorous Substances)**—This regulation establishes general odor limitations on odorous substances and specific emission limitations on certain odorous compounds.

- **Regulation 8, Rule 3 (Architectural Coatings)**—This regulation limits the quantity of reactive organic gases (ROG) in architectural coatings.
- **Regulation 9, Rule 6 (Nitrogen Oxides Emission from Natural Gas–Fired Boilers and Water Heaters)**—This regulation limits emissions of nitrogen oxides (NO_X) generated by natural gas–fired boilers.
- **Regulation 9, Rule 8 (Stationary Internal Combustion Engines)**—This regulation limits emissions of NO_X and carbon monoxide (CO) from stationary internal combustion engines of more than 50 horsepower.
- **Regulation 11, Rule 2 (Hazardous Pollutants – Asbestos Demolition, Renovation, and Manufacturing)**—This regulation, which incorporates EPA's asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations, controls emissions of asbestos to the atmosphere during demolition, renovation, and transport activities.

In addition to BAAQMD rules and regulations, BAAQMD is also responsible for the issuance of air quality permits for stationary equipment in the Bay Area and the management of the resulting air emissions. The Project may require the following permit(s).

- **Authority to Construct/Permit to Operate**—Like building permits, air quality permits are required by law as a part of doing business in the Bay Area. As the Project includes two emergency generators, the Project applicant will need to apply for an Air District Authority to Construct/Permit to Operate.

City of San Bruno General Plan

The City of Bruno General Plan, adopted in 2009, includes goals and policies that relate to air quality and emission reduction (City of San Bruno 2009). These goals and policies include continuing to improve air quality by reducing emissions from construction activities, coordinating air quality planning efforts locally and regionally, and focusing improvements on non-motorized modes of transportation. The Project's consistency with applicable air quality General Plan policies is evaluated in Section 3.6, *Land Use and Planning*.

3.2.1.2 Environmental Setting

The Project area, described in Chapter 2, *Project Description*, is located within the larger SFBAAB; the air basin comprises the study area for the Project. Ambient air quality is affected by climatological conditions, topography, and the types and amounts of pollutants emitted. The following sections summarize how air pollution moves through the air, water, and soil within the air basin, and how it is chemically changed in the presence of other chemicals and particles. This section also summarizes local climate conditions, existing air quality conditions, and sensitive receptors that may be affected by the Project-generated emissions.

3.2.1.3 Pollutants of Concern

Criteria Pollutants

As described above, the federal and state governments have established ambient air quality standards for six criteria pollutants. Ozone is considered a regional pollutant because its precursors affect air quality on a regional scale. Pollutants such as CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead are considered local pollutants that tend to accumulate in the air locally. Particulate matter (PM) is both a regional and local pollutant. The primary criteria pollutants expected to be generated by the Project are ozone precursors [NO_X and ROG), CO, and PM.[1, 2]

All criteria pollutants can have human health effects at certain concentrations. The ambient air quality standards for these pollutants are set to protect public health and the environment with an adequate margin of safety (CAA Section 109). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards.

Principal characteristics and possible health and environmental effects from exposure to the primary criteria pollutants generated by the Project are discussed below.

Ozone, or smog, is photochemical oxidant that is formed when ROG and NO_X (both by-products of the internal combustion engine) react with sunlight. ROG are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. The two major forms of NO_X are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in ozone formation, NO_X also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Ozone poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoor. Exposure to ozone at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggregate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (U.S. Environmental Protection Agency 2018a). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms in the least responsive (sensitive) individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrease in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (U.S. Environmental Protection Agency 2016). The average background level of ozone in the Bay Area is approximately 45 parts per billion (Bay Area Air Quality Management District 2017b).

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1 As discussed above, there are also ambient air quality standards for SO_2, lead, sulfates, hydrogen sulfide, vinyl chloride, and visibility particulates. However, these pollutants are typically associated with industrial sources, which are not included as part of the Project. Accordingly, they are not evaluated further.

2 Most emissions of NOx are in the form of NO (Reşitoğlu 2018). Conversion to NO_2 occurs in the atmosphere as pollutants disperse downwind. Accordingly, NO_2 is not considered a local pollutant of concern for the proposed project and is not evaluated further.

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Carbon monoxide is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. In the study area, high CO levels are of greatest concern during the winter, when periods of light winds combine with the formation of ground-level temperature inversions from evening through early morning. These conditions trap pollutants near the ground, reducing the dispersion of vehicle emissions. Moreover, motor vehicles exhibit increased CO emission rates at low air temperatures. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects of CO at or near existing background levels (California Air Resources Board 2016b).

Particulate matter consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of particulates are now generally considered to be of concern: inhalable coarse particles, or PM10, and inhalable fine particles, or PM2.5 (the numbers "10" and "2.5" refer to particle size in micrometers, with smaller particles inhaled deeper into the lungs and causing more harm). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading.

Particulate pollution can be transported over long distances and may adversely affect the human, especially for people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Studies show that long-term exposure to PM2.5 was associated with increased risk of mortality, ranging from 6 to 13 percent increased risk per 10 $\mu g/m^3$ of PM2.5 (California Air Resources Board 2010). For every 1 microgram per cubic meter reduction in PM2.5 results in a one percent reduction in mortality rate for individuals over 30 years old (Bay Area Air Quality Management District 2017b). Studies also show an approximate 0.5 percent increase in overall mortality for every 10 mg/m^3 increase in PM10 measured the day before death (U.S. Environmental Protection Agency 2005). PM10 levels have been greatly reduced since 1990. Peak concentrations have declined by 60 percent and annual average values have declined by 50 percent (Bay Area Air Quality Management District 2017b). Depending on its composition, both PM10 and PM2.5 can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. Environmental Protection Agency 2018b).

Toxic Air Contaminants

Although ambient air quality standards have been established for criteria pollutants, no ambient standards exist for TAC. Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. For TACs that are known or suspected carcinogens, the CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified and their toxicity is studied by the California Office of Environmental Health Hazard Assessment (OEHHA) The primary TAC of concern associated with the Project are asbestos and diesel particulate matter (DPM).

Asbestos is the name given to several naturally occurring fibrous silicate minerals. Before the adverse health effects of asbestos were identified, asbestos was widely used as insulation and fireproofing in buildings, and it can still be found in some older buildings. It is also found in its natural state in rock or soil. The inhalation of asbestos fibers into the lungs can result in a variety of adverse health effects, including inflammation of the lungs, respiratory ailments (e.g., asbestosis, which is scarring of lung tissue that results in constricted breathing), and cancer (e.g., lung cancer and mesothelioma, which is cancer of the linings of the lungs and abdomen).

DPM is generated by diesel-fueled equipment and vehicles. Within the Bay Area, the BAAQMD (2017b) has found that of all controlled TACs, emissions of DPM are responsible for about 82 percent of the total ambient cancer risk. Short-term exposure to DPM can cause acute irritation (e.g., eye, throat, and bronchial), neurophysiological symptoms (e.g., lightheadedness and nausea), and respiratory symptoms (e.g., cough and phlegm). The EPA (2002) has determined that diesel exhaust is “likely to be carcinogenic to humans by inhalation”.

Odors

Offensive odors can be unpleasant and lead to citizen complaints to local governments and air districts. According to CARB’s (2005) *Air Quality and Land Use Handbook*, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, manufacturing, and agricultural activities. CARB provides recommended screening distances for siting new receptors near existing odor sources.

3.2.1.4 Climate and Meteorology

While the primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted from those sources, meteorological conditions and topography are also important factors. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. Unique geographic features throughout the state define fifteen air basins with distinctive regional climates. The air quality study area for the Project is located on the San Francisco Peninsula in the SFBAAB.

The Peninsula subregion extends from northwest of San José to the Golden Gate Bridge. The Santa Cruz Mountains run along the center of the peninsula, with elevations above 2,000 feet at the southern end but decreasing to 500 feet in South San Francisco. Coastal towns experience a high incidence of cool, foggy weather in the summer. San Francisco lies at the northern end of the peninsula. Because most of San Francisco’s topography is below 200 feet, marine air can flow easily across most of the city, making its climate cool and windy. Cities in the southeastern peninsula experience warmer temperatures and fewer foggy days because the marine layer is blocked by the ridgeline to the west.

The regional climate within the SFBAAB is considered semi-arid and characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate onshore breezes in the daytime, and moderate humidity. A wide range of meteorological and emissions-related sources, such as the dense population centers, heavy vehicular traffic, and industrial activity, influence air quality in the SFBAAB.

Annual average wind speeds range from 5–10 miles per hour (mph) throughout the peninsula. The tendency is for the higher wind speeds to be found along the western coast

The prevailing winds are westerly along the peninsula's west coast. Individual sites can show significant differences, however. For example, Fort Funston in western San Francisco County shows a southwest wind pattern, while Pillar Point in San Mateo County to the south shows a northwest wind pattern. Sites on the east side of the mountains also show a westerly pattern, although their wind patterns show influence by local topographic features. That is, a few hundred feet rise in elevation will induce flow around that feature instead of over it during stable atmospheric conditions. This can change the wind pattern by as much as 90 degrees over short distances. On mornings without a strong pressure gradient, areas on the east side of the peninsula often experience eastern flow in the surface layer, induced by upslope flow on the east-facing slopes and by the bay breeze. The bay breeze is rarely seen after noon because the stronger sea breeze dominates the flow pattern.

On the peninsula, there are two important gaps in the Santa Cruz Mountains. The larger of the two is the San Bruno Gap (which affects the Project Site), extending from Fort Funston on the ocean side to the San Francisco International Airport on the bay side. Because the gap is oriented in the same northwest to southeast direction as the prevailing winds, and because the elevations along the gap are under 200 feet, marine air is easily able to penetrate into the bay.

There are no monitors for wind, rainfall, and temperature at or in the immediate vicinity of the Project Site; therefore, conditions at the Project Site are assumed to be similar to those reported for San Bruno. Annual average wind speeds in San Bruno are similar to what has been observed along the peninsula's west coast at 9 mph with winds predominately blowing from the west (Willy Weather 2020). Air pollution potential at the Project Site is expected to be lower than other parts of the peninsula as winds are generally fast enough to carry pollutants away before they can accumulate. Rainfall and temperatures in San Bruno are also consistent with the rest of the peninsula. Rainfall amounts in San Bruno average 20.8 inches per year. The average maximum daily summertime and wintertime temperatures in San Bruno are in the low 60s and low 50s, respectively. The average minimum daily summertime and wintertime temperatures in San Bruno are in the low 60s and high 40s, respectively (Weather Channel 2019).

3.2.1.5 Existing Air Quality Conditions

Ambient Criteria Pollutant Concentrations

A number of ambient air quality monitoring stations are located in SFBAAB to monitor progress toward air quality standards attainment of NAAQS and CAAQS. There are no monitoring stations in the City of San Bruno. The nearest monitoring station to the Project is the San Francisco-Arkansas Street monitoring station, located approximately 9.5 miles northeast from the northern boundary of the Project.

Table 3.2-2 summarizes data for criteria air pollutant levels from the San Francisco-Arkansas monitoring station for the last 3 years for which complete data was available (2016–2018). Table 3.2-2 shows the San Francisco-Arkansas monitoring station experienced violations of the federal PM2.5 in 2017 and 2018, and state PM10 in 2017. Federal and state standards for the other pollutants were not exceeded. Existing violations of the PM ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Table 3.2-2. Ambient Air Quality Data at the San Francisco-Arkansas Monitoring Station (~~2015-2017~~2016–2018)

Pollutant Standards	2016	2017	2018
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	0.057	0.054	0.049

Pollutant Standards	2016	2017	2018
Maximum 8-hour concentration (ppm)	0.049	0.052	0.049
Number of days standard exceeded[a]			
CAAQS 1-hour (>0.09 ppm)	0	0	0
CAAQS 8-hour (>0.070 ppm)	0	0	0
NAAQS 8-hour (>0.070 ppm)	0	0	0
Carbon Monoxide (CO)			
Maximum 8-hour concentration (ppm)	1.1	1.4	1.6
Maximum 1-hour concentration (ppm)	1.7	2.5	1.9
Number of days standard exceeded[a]			
NAAQS 8-hour (≥9 ppm)	0	0	0
CAAQS 8-hour (≥9.0 ppm)	0	0	0
NAAQS 1-hour (≥35 ppm)	0	0	0
CAAQS 1-hour (≥20 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
State maximum 1-hour concentration (ppb)	58	73	68
State second-highest 1-hour concentration (ppb)	57	66	65
Annual average concentration (ppb)	11	11	11
Number of days standard exceeded[a]			
CAAQS 1-hour (180 ppb)	0	0	0
Particulate Matter (PM10)			
National[b] maximum 24-hour concentration (μg/m^3)	35.7	75.9	40.9
National[b] second-highest 24-hour concentration (μg/m^3)	27.9	52.7	35.7
State[c] maximum 24-hour concentration (μg/m^3)	29.0	77.0	43.0
State[c] second-highest 24-hour concentration (μg/m^3)	28.0	53.0	37.0
National annual average concentration (μg/m^3)	8.8	11.0	10.0
State annual average concentration (μg/m^3)[d]	*	22.1	*
Measured number of days standard exceeded[a,e]			
NAAQS 24-hour (>150 μg/m^3)	0	0	0
CAAQS 24-hour (>50 μg/m^3)	0	2	0
Particulate Matter (PM2.5)			
National[f] maximum 24-hour concentration (μg/m^3)	19.6	49.9	177.4
National[f] second-highest 24-hour concentration (μg/m^3)	19.3	49.7	145.4
State[g] maximum 24-hour concentration (μg/m^3)	19.6	49.9	177.4
State[g] second-highest 24-hour concentration (μg/m^3)	19.3	49.7	145.4
National annual average concentration (μg/m^3)	7.5	9.7	11.6
State annual average concentration (μg/m^3)	*	9.7	11.7
Measured number of days standard exceeded[a]			
NAAQS 24-hour (>35 μg/m^3)	0	7	14

Pollutant Standards	2016	2017	2018

Source: California Air Resources Board 2019; U.S. Environmental Protection Agency 2018c.

Notes:

ppm	=	parts per million
NAAQS	=	National Ambient Air Quality Standards
CAAQS	=	California Ambient Air Quality Standards
μg/m³	=	micrograms per cubic meter
mg/m³	=	milligrams per cubic meter
*	=	insufficient data available to determine the value

[a] An exceedance is not necessarily related to a violation of the standard as an exceedance may be the result of a highly irregular or infrequent event which is then excluded from the designation process.

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

[c] State statistics are based on approved local samplers and local conditions data.

[e] State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

[e] Measurements usually are collected every 6 days.

[f] National statistics are based on samplers using federal reference or equivalent methods.

[g] State statistics are based on local approved samplers.

Existing TAC Sources and Health Risks

The BAAQMD maintains an inventory of health risks associated with all permitted stationary sources within the SFBAAB. The inventory was last updated in 2018 and is publicly available in Google Earth format. Stationary sources within 1,000 feet of the Project Site include generators owned by Google LLC, Google Inc., WalMart Stores, Inc., Avalon San Bruno, Double AA El Camino, Wall-Mart Stores, Inc., and San Bruno Shell. Some of the sources are located within the Project Site and may be removed or relocated as a result of development supported by the Project. Figure 3.2-1 shows the existing stationary emission sources within 1,000 feet of the Project Site.

Aside from stationary sources, emissions of TACs in and around the Project Site are also generated from mobile sources. BAAQMD (2012) considers roadways with greater than 10,000 average daily traffic (ADT) as “high volume roadways” and recommends they be included in the analysis of health risks. Currently, roadways located in the immediate proximity of the Project Site that have ADT greater than 10,000 vehicles include Interstate 380 (I-380), Intestate 280 (I-280), State Route 82 (SR 82)/El Camino Real. These segments of I-380, I-280, and SR 82 have annual average daily traffic volumes of 149,000, 145,500, and 41,750, respectively (California Department of Transportation 2016). Additionally, both San Bruno Avenue West, which runs along the southern boundary of the Project Site, and Cherry Avenue, which traverses the western portion of the Project Site between San Bruno Avenue West and I-380, are classified as arterial streets in the City and have ADT of 22,855 and 8,835, respectively. Although Cherry Avenue currently has an ADT of less than 10,000 vehicles, ADT is anticipated to exceed 10,000 with the Project and, thus, have been included in Table 3.2-3 below. There are no rail sources within 1,000 feet of the Project Site. Figure 3.2-1 shows the existing road sources within 1,000 feet of the Project Site.

Figure 3.2-1
Existing Air Quality Sensitive Receptors and Emission Sources in the Vicinity of the Project Site

Table 3.2-3 shows the associated health risks of these sources within 1,000 feet of the Project Site, based on measurements of their individual emissions.

Table 3.2-3. Existing Health Risks within 1,000 feet of the Project Site

	Cancer Risk (per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration (µg/m^3)
Stationary Sources (Generators)			
Google LLC	2	<1	<0.1
Google Inc.	<1	<1	<0.1
WalMart Stores, Inc.	9	<1	<0.1
Avalon San Bruno	3	<1	<0.1
Double AA El Camino	10	<1	0
Wall-Mart Stores, Inc.	6	<1	<0.1
San Bruno Shell	7	<1	0
Roadways			
I-380	29	<1	0.3
I-280	12	<1	<0.1
SR 82	15	<1	0.4
Cherry Avenue	<1	<1	<0.1
San Bruno Avenue West	<1	<1	<0.1

Source: BAAQMD 2018.
Notes:
BAAQMD (2017a) has adopted incremental cancer, hazard, and PM2.5 thresholds to evaluate health risks. These thresholds are 10 in 1 million, a non-cancer (i.e., chronic or acute) hazard index (HI) greater than 1.0, and PM2.5 concentrations exceeding 0.3 µg/m^3, respectively. Therefore, this table focuses on these risks from existing sources near the Project Site. See DPM and PM discussion below under Section 3.2.1.1, *Thresholds of Significance* for additional details on these thresholds. In addition, the risks presented in this table are for informational purposes and represent those at the boundary of the Project Site with no specific receptor in mind. The risk for any given receptor would vary depending on its distance to the source. The cumulative analysis (Table 3.2-12, see Section 3.2.3, *Cumulative Impacts*) identifies the most impacted receptor during construction and considered specific risks associated with the receptor.

Regional Attainment Status

Local monitoring data (Table 3.2-2) are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the ambient air quality standards. The four designations are further defined as shown below.

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

Tables 3.2-4 summarizes the attainment status of San Mateo County.

Table 3.2-4. Federal and State Ambient Air Quality Attainment Status for San Mateo County

Criteria Pollutant	Federal Designation	State Designation
O_3 (8-hour)	Marginal Nonattainment	Nonattainment
CO	Attainment	Attainment
PM10	Attainment	Nonattainment
PM2.5	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No Federal Standard)	Attainment
Hydrogen Sulfide	(No Federal Standard)	Unclassified
Visibility Reducing Particles	(No Federal Standard)	Unclassified

Source: California Air Resources Board 2018; U.S. Environmental Protection Agency 2017b.

CO = carbon monoxide
PM10 = particulate matter less than or equal to 10 microns
PM2.5 = particulate matter less than or equal to 2.5 microns
NO_2 = nitrogen dioxide
SO_2 = sulfur dioxide

Sensitive Receptors

Sensitive land uses are defined as locations where human populations, especially children, seniors, and sick persons, are located and where there is reasonable expectation of continuous human exposure according to the averaging period for the air quality standards (i.e., 24-hour, 8-hour). Per BAAQMD (2017a), typical sensitive receptors are residences, hospitals, and schools. Parks and playgrounds, where sensitive receptors (e.g., children and seniors) are present are also included. Currently, the Project Site consists of commercial and business office uses, and does not contain any sensitive receptors. Offices and other places of employment are not considered sensitive receptors because health-sensitive individuals (e.g., children and seniors) are not present. However, single-family residential uses are currently located to the south, across San Bruno Avenue, to the east, across El Camino Real, and to the west, across the Interstate 280, of the Project Site boundaries. Additionally, multi-family residential uses are also located to the north and northwest of the Project, across Interstate 380, and across El Camino Real. Commodore Park and El Portal School are located approximately 350 and 650 feet north of the Project Site, respectively. Figure 3.2-1 shows the sensitive receptors within 1,000 feet of the Project Site.

3.2.2 Environmental Impacts

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

3.2.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below:

- Conflict with or obstruction of implementation of the applicable air quality plan.
- A cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard.
- Exposure of sensitive receptors to substantial pollutant concentrations.
- Other emissions (such as those leading to odors) affecting a substantial number of people.

The primary pollutants of concern that would be generated by the Project are ozone precursors (ROG and NO_X), CO, PM, and TAC (including DPM and asbestos). As discussed above, all pollutants that would be generated by the Project are associated with some form of health risk (e.g., asthma, lower respiratory problems). Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Emission thresholds that can be used to evaluate the significance level of regional and localized pollutants are discussed in the following sections. Thresholds and guidance for evaluating potential odors associated with the Project also presented.

Regional Emissions

This analysis evaluates the impacts of regional emissions generated by the Project using a two-tiered approach that considers both project- and plan-level guidance recommended by BAAQMD in their CEQA Guidelines (2017a).

First, this analysis considers whether the Project would conflict with the most recent air quality plan (2017 Clean Air Plan), consistent with BAAQMD Guidance for programmatic analyses (2017a and 2017b). The impact analysis evaluates whether the Project supports the primary goals of the 2017 Clean Air Plan, including applicable control measures from the 2017 Clean Air Plan, and whether it would disrupt or hinder implementation of any 2017 Clean Air Plan control measure.

Second, calculated regional criteria pollutant emissions are compared to BAAQMD's project-level thresholds. BAAQMD's thresholds are summarized in Table 3.2-5 and are recommended by the air district to evaluate the significance of a project's regional criteria pollutant emissions (BAAQMD 2017a). According to the BAAQMD, projects with emissions in excess of the thresholds shown in Table 3.2-5 would be expected to have a significant cumulative impact on regional air quality because an exceedance of the thresholds is anticipated to contribute to CAAQS and NAAQS violations.

BAAQMD's project-level thresholds were developed to analyze emissions generated by a single project, and thus, do not lend well to an evaluation of emissions from a land use plan being evaluated at a programmatic level. Large-scale land use plans that consist of numerous individual developments will, by their nature, produce more criteria pollutants than single developments, even if the plans include efficiency measures to reduce future emissions. Use of the project-level thresholds to evaluate land use plans may therefore unfairly penalize the plans, yielding a significant and unavoidable conclusion simply due to scale. Thus, this EIR uses the BAAQMD's plan-level thresholds for evaluation of potential impacts under the Specific Plan rather than comparing the totality of Specific Plan buildout to BAAQMD's project-level thresholds. The use of BAAQMD's plan-level thresholds (i.e., consistency with the most recently adopted attainment plan) is a common industry practice for CEQA review and are the most appropriate standards to apply. As to the Phase I Development, this EIR uses the thresholds presented in Table 3.2.-5 for evaluation of potential impacts.

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

Analysis	BAAQMD
Regional Criteria Pollutants (Construction)	ROG: 54 lbs/day NO_X: 54 lbs/day PM10: 82 lbs/day (exhaust only) PM2.5: 54 lbs/day (exhaust only)
Regional Criteria Pollutants (Operations)	ROG: Same as construction NO_X: Same as construction PM10: 82 lbs/day PM2.5: 54 lbs/day

Sources: Bay Area Air Quality Management District 2017a.
ROG = reactive organic gases
lbs = pounds
NO_X = nitrogen oxides
PM10 = particulate matter that is 10 microns in diameter and smaller
PM2.5 = particulate matter that is 2.5 microns in diameter and smaller
CAAQS = California ambient air quality standards
$\mu g/m^3$ = microgram per cubic meter

Localized Emissions

Localized criteria pollutants generated by a project are deposited and potentially affect sensitive receptors near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects are considered to have the potential to result in direct and material health impacts to adjacent and nearby sensitive receptors (the specific distance varies by pollutant, described further below). The localized pollutants of concern that would be generated by the Project are CO, PM, DPM, and asbestos. Applicable thresholds for each pollutant are discussed below.

Carbon Monoxide

Heavy traffic congestion can contribute to high levels of CO, and individuals exposed to such hot spots may have a greater likelihood of developing adverse health effects. Hot spots are assumed to be located 10 feet (3 meters) from the roadway per modeling practices (Garza et al. 1997). BAAQMD has adopted screening criteria that provides a conservative indication of whether project-generated traffic would cause a potential CO hot spot. If the screening criteria are not met, a quantitative analysis through site-specific dispersion modeling of project-related CO concentrations would not be necessary, and the project would not cause localized violations of the CAAQs for CO. BAAQMD's CO screening criteria are summarized below.

1. The project traffic may not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
2. The project traffic may 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, below-grade roadway).

3. The project must be consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.

Particulate Matter

BAAQMD adopted an incremental PM2.5 concentration-based significance threshold in which a "substantial" contribution at the project level for an individual source is defined as total (i.e., exhaust and fugitive) PM2.5 concentrations exceeding 0.3 $\mu g/m^3$. This is the same threshold used to evaluate the placement of new receptors that would be exposed to individual PM2.5 emissions sources (generally within 1,000 feet). In addition, BAAQMD considers projects to have a cumulatively considerable PM2.5 impact if sensitive receptors are exposed to PM2.5 concentrations from local sources within 1,000 feet, including existing sources, project-related sources, and reasonably foreseeable future sources, that exceed 0.8 $\mu g/m^{3.}$

BAAQMD has not established PM10 thresholds of significance. BAAQMD's PM2.5 thresholds apply to both new receptors and new sources, However, BAAQMD considers fugitive PM10 from earth moving activities to be less than significant with application of BAAQMD's Basic Construction Mitigation Measures.

Diesel Particular Matter

DPM has been identified as a TAC and is particularly concerning because long-term exposure can lead to cancer, birth defects, and damage to the brain and nervous systems. BAAQMD has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to single sources of DPM emissions. The "substantial" DPM threshold defined by BAAQMD is exposure of a sensitive receptor (generally within 1,000 feet) to an individual emissions source, resulting in an excess cancer risk level of more than 10 in 1 million or a non-cancer (i.e., chronic or acute) hazard index (HI) greater than 1.0.

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

Asbestos

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

Odors

BAAQMD (2017a) and CARB (2005) have identified several types of land uses as being commonly associated with odors, such as landfills, wastewater treatment facilities, and animal processing centers. BAAQMD's CEQA Guidelines recommend that plan-level analyses identify the location of existing and planned odor sources and include policies to reduce potential odors impacts in the plan area.

3.2.2.2 Methodology and Approach

Air quality impacts associated with construction and operation of the Project and Phase I Development were assessed and quantified (where applicable) using standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions can be found in Appendix 3.2-1.

Project

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multi-family residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed.

This section analyzes the build out scenario which represents the "worst-case" scenario for air quality. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts. The types of construction-related emissions are anticipated to be similar for the two buildout scenarios, but as described below, they cannot be precisely determined at this time. On the other hand, the differences in the gross square footage of commercial and residential land uses would influence long-term operational emissions. As discussed in Section 3.10, *Transportation*, commercial land use trip generation rates are higher than those of residential land uses and mobile source emissions typically make up the largest portion of the operational emissions profile. Therefore, for the analysis of criteria pollutant emissions, the worst-case scenario is assumed to be the Maximum Office Scenario, and this scenario is evaluated in this section.

As discussed in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan also includes an equivalency exchange program that would allow for up to 115,422 square feet of hotel use or 34,265 square feet of retail use to be developed in lieu of up to 180,347 square feet of the new office development included in the EIR buildout projections (Tables 2-3 and 2-4). The emission levels presented in this section represent the highest emissions that could occur between these three potential land uses. For further discussion of the equivalency exchange program, refer to Appendix 4 of this ~~Draft~~ EIR.

Construction Emissions

Land uses that could be developed under the Specific Plan would generate construction-related emissions from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, haul truck vehicles caring TAC materials, land clearing and material movement, paving, and application of architectural coatings. The specific size, location, construction techniques and scheduling that would be utilized for each individual development project occurring on the Project Site from implementation of the proposed Specific Plan is not currently known. With an anticipated buildout year of 2040, development of the various land uses associated with the proposed Specific Plan would occur over an extended period of time and would depend on factors such as local economic conditions, market demand, and other financing considerations. As such, without specific project-level details it is not possible to develop a refined construction inventory.[3] Consequently, the determination of construction air quality impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Thus, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related impacts resulting from implementation of the proposed Specific Plan is conducted qualitatively in this EIR. Emission-generating activities and types of emissions are described and additional details regarding timing and phasing are provided for context.

Operational Mobile Source Emissions

Air quality impacts from motor vehicles operating within the Project Site were evaluated using Caltrans' CT-EMFAC2017 emissions model (version 1.0.2.27401), CARB's EMFAC2017 model, and traffic data for the Maximum Office Scenario[4] provided by the traffic engineers (Chan pers. comm., McAdam pers. comm).[5] Daily VMT apportioned into 5 mph speed intervals and daily trip generation rates for existing (2017)[6,7] and buildout (2040) year conditions were provided with and without the Specific Plan. Traffic speeds relate to air pollutant emissions because the level of emissions emitted by a vehicle depend on the speed at which the vehicle is travelling. The analysis accounts for trip reductions achieved by quantifiable Specific Plan policies, including proximity to transit and mixed-use design. Criteria pollutants emissions from vehicle movement were calculated by multiplying the VMT estimates by the appropriate emission factors provided by CT-EMFAC2017. These emissions were added to process emissions (i.e., emission from vehicle starts, running losses, etc.), which were calculated by multiplying the daily trips by the appropriate emission factors provided by EMFAC2017. Please refer to Appendix 3.2-1 for the CT-EMFAC2017 and EMFAC0217 emission factors and traffic data utilized in this analysis.

Operational Area, Energy, and Stationary Source Emissions

Area, energy, and stationary emissions were estimated using CalEEMod, version 2016.3.2. The primary area source of criteria pollutants is hearth (e.g., natural gas fireplaces) usage, but emissions are also

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3 Project-level information includes details such as the size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition and grading quantities.

4 According to Fehr & Peers, the project traffic engineers, VMT for the Maximum Office Scenario would be lower if the equivalency program is utilized due to the greater diversity in land use mix. Therefore, the mobile source emissions presented in this analysis is representative of the worst-case scenario for the Specific Plan (Chan pers. comm).

5 CARB recently released vehicle criteria pollutant adjustment factors to account for the SAFE Vehicle Rule Part 1 and Part 2. This analysis was completed prior to the release of CARB's guidance. As such, emissions presented for operation do not include the application of the adjustment factors. However, the adjustment factors would only result in a 1 to 3% increase in criteria pollutant emissions associated with gasoline vehicles (e.g., tenants, etc.), depending on the pollutant and year, during operation. The ~~Draft~~ EIR preparers considered applying this increase and determined that the neither the conclusions regarding the recommended mitigation measures nor their effectiveness would change.

6 Fehr & Peers, the project traffic engineers, utilized the San Mateo City/County Association of Governments (C/CAG) Travel Demand Model, the latest version of which uses 2013 as the existing year. For additional details, see Section 3.10, *Transportation (Introduction and Section 3.10.1.4).*

7 CEQA Guidelines Section 15125 states that an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation (NOP) is published, or if no NOP is published, at the time environmental analysis is commenced. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The EIR analysis began in 2017 when the EIR NOP was circulated. Therefore, it is appropriate and adequate under CEQA to use 2017 data for the baseline, or "existing," condition.

generated by landscape maintenance equipment and the repainting of buildings. Energy sources include the combustion of natural gas for building heating and hot water. Stationary sources include emergency back-up generators. Emissions were quantified for existing (2017) and buildout (2040) conditions with and without the Specific Plan for the Maximum Office Scenario.[8] CalEEMod defaults were assumed based on the anticipated land uses in the Maximum Office Scenario. Please refer to Appendix 3.2-1 for the CalEEMod output files.

Selection of Future Year Baseline Conditions

The CEQA Guidelines provide that existing conditions at the time a Notice of Preparation is released or when environmental review begins "normally" constitute the baseline for environmental analysis. (Guidelines Section 15125). In 2010, the California Supreme Court issued an opinion holding that while lead agencies have some flexibility in determining what constitutes the baseline, relying on "hypothetical allowable conditions" when those conditions are not a realistic description of the conditions without the project would be an illusory basis for a finding of no significant impact from the project and, therefore, a violation of CEQA (*Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310).

On August 5, 2013, the California Supreme Court issued another baseline decision in *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (57 Cal.4th 439). This latest decision has clarified that, under certain circumstances, a baseline may reflect future, rather than existing, conditions. The rule specifies that factual circumstances can justify an agency departing from that norm in the following circumstances, when such reasons are supported by substantial evidence:

- When necessary to prevent misinforming or misleading the public and decision makers.
- When their use in place of existing conditions is justified by unusual aspects of the project or surrounding conditions.

With respect to the Project, utilizing existing conditions to evaluate criteria pollutant impacts would potentially misrepresent and mislead the public and decision makers with respect to potential air quality and impacts for two reasons: 1) natural vehicle fleet mix turnover, and 2) changes in on-road emission factors, each as described below.

1. The fleet mix in San Mateo County will be different by the time the Project is fully implemented in 2040, as the percentage of truck traffic to all vehicle traffic changes. Per CT-EMFAC 2017, in 2017, 5.1 percent of the San Mateo County fleet mix was made up of trucks, while in 2040 it is forecasted to increase to 7.7 percent (California Department of Transportation 2017). Trucks have different emissions profiles and are generally more emissions-intensive than passenger vehicles. Quantifying emissions under existing conditions would, therefore, misrepresent vehicle emissions associated with the vehicle fleet that will be in place once the Project is fully operational.
2. On-road vehicle emissions rates are anticipated to lessen in the future due to continuing engine advancements and more stringent air quality regulations. Analyzing existing conditions (2017) and quantifying emissions utilizing 2017 vehicle emissions rates instead of the reduced 2040 vehicle emissions rates would not only represent a factitious scenario but would also overestimate emissions reductions and potential air quality benefits achieved by the Project.

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[8] The highest emissions that could be generated by land use exchanges allowed under the equivalency program are conservatively presented in this analysis by pollutant and emission source.

Accordingly, the CEQA baseline for the purposes of the Project's air quality analysis is defined as buildout year (2040) conditions. Evaluating 2040-With-Project conditions against 2040-Without Project conditions ensures that future fleet changes and engine exhaust emission factors are appropriately attributed to baseline conditions and not misrepresented as a project-related effect. Utilizing the Project buildout year conditions as the CEQA baseline is most appropriate to inform the public and decision makers with respect to air quality impacts, consistent with current CEQA case law. Where appropriate, emissions under existing conditions (2017) are also presented for informational purposes.

Phase I Development

Construction Emissions

Similar types of construction related emission sources, as described above for the Specific Plan, are anticipated with construction of the Phase I Development. Criteria pollutants were estimated using the CalEEMod, version 2016.3.2.[9] Construction schedule, equipment operating details, trip numbers and lengths, and material quantities were provided by the project sponsor (Weber pers. comm). Daily construction emissions were estimated using these project-specific details. Please refer to Appendix 3.2-1 for the construction modeling inputs and CalEEMod outputs.

Diesel Particulate Matter Risk Analysis

Diesel-powered construction equipment and emergency generators would emit DPM that could expose nearby sensitive receptors to increased cancer and non-cancer risks. Given the Phase I Development would introduce DPM emissions to an area near existing sensitive receptors, a human Health Risk Assessment (HRA) was performed using EPA's most recent dispersion model, AERMOD (version 18081); chronic risk assessment values presented by OEHHA; and assumptions for model inputs from BAAQMD's *Air Toxics NSR Program Health Risk Assessment Guidelines* (2016). Note that the HRA takes into account OEHHA's most recent guidance and calculation methods from the *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments* (OEHHA 2015).

The HRA analyzes health risks to nearby sensitive receptors from construction activities and testing of emergency generators during project operations. The human HRA consists of three parts: a DPM inventory, air dispersion modeling, and risk calculations. A description of each of these parts follows.

DPM Inventory

The DPM inventory includes emissions associated with short-term construction activity and emissions from testing of the emergency back-up generators. The construction and operational DPM inventories are based on CalEEMod outputs for diesel PM2.5 exhaust generated onsite and offsite.

Air Dispersion Modeling

The HRA used EPA's AERMOD model, version 18081, to model annual average DPM concentrations at nearby receptors. Modeling inputs, including emissions rates (in grams per second) and source characteristics (e.g., release height, stack diameter, plume width), were based on guidance provided by

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[9] Similar to the Specific Plan, this analysis was completed prior to the release of CARB's guidance regarding the SAFE Vehicle Rule Part 1. Therefore, emissions presented for construction do not include the application of the SAFE Vehicle Rule Part 1 adjustment factors. However, the adjustment factors would only result in a 1 to 3% increase in criteria pollutant emissions associated with gasoline vehicles (e.g., construction workers), depending on the pollutant and year, during construction. The ~~Draft~~ EIR preparers considered the consequences of applying this increase and determined that the neither the conclusions regarding the recommended mitigation measures nor their effectiveness would change.

OEHHA and BAAQMD. Meteorological data were obtained from CARB for the San Francisco International Airport location, which is nearest monitoring station located approximately 1.2 miles east of the Project Site.

Onsite construction emissions for the Phase I Development were characterized as an area source (AREAPOLY) with a release height of 3 meters (16.4 feet). Offsite construction emissions were characterized as a line/area source (LINEAREA) with a release height of 2.55 meters (8.37 feet). The urban dispersion option with an elevation of 0 meters was assumed. The modeling of emissions from construction activities was based on construction hours and days (7:00 a.m. to 10:00 p.m. daily) identified by the Phase I Development applicant. To account for plume rise associated with mechanically generated construction emissions sources for the AERMOD run, the initial vertical dimension of the area source was based on a 2.37-meter (7.77-foot) release height; for the line/area source, it was based on a 2.55-meter (8.37-foot) release height.

Emissions from testing of the two new 750 horsepower emergency back-up generators were characterized as two separate vertical point sources (POINT). The locations of the generators were estimated based on the Phase I Development site design. The urban dispersion option with an elevation of 0 meters was assumed. The modeling of emissions from generator activities utilized a 12-hour testing window per day (7:00 a.m. to 7:00 p.m.) as testing was assumed to occur during regular business hours. Variables, including release height (6.07 meters or 19.9 feet) and stack diameter (0.19 meters or 0.62 feet), were taken from comprehensive modeling information provided by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for the 750 horsepower generator they tested (San Joaquin Valley Air Pollution Control District 2015). A receptor is defined as a point where a person (e.g., resident) may be located for a given period. With respect to cancer and chronic health effects, all locations where a person could be located for extended periods of time, such as a residence or school, are identified. Sensitive receptor locations were placed using a grid with 20 meter spacings in all directions within 1,000 feet of the Phase I Site and were all conservatively assumed to be residential receptors. Assuming that all sensitive receptors are residential is conservative because young children and other health-sensitive individuals (e.g., pregnant women and seniors) are assumed to be home longer periods during the day compared to other land uses. All receptors were assumed to have a height of 1.2 meters, conservatively representing children who would be more sensitive to emissions.

According to BAAQMD guidance, residential cancer risks assume a 30-year exposure (BAAQMD 2016). A complete list of dispersion modeling and risk calculation inputs is provided in Appendix 3.2-1.

Risk Calculations

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

Chronic cancer and hazard risks were calculated using Equations 5.4.1 and 8.2.4a and Section 8.3.1, respectively, from OEHHA's 2015 HRA guidance. Refer to Appendix 3.2-1 for the risk calculations and additional assumptions.

Operational Mobile Source Emissions

Air quality impacts from motor vehicles associated with the Phase I Development were evaluated using the same method and models (e.g., CT-EMFAC2017, EMFAC2017) as described above for the Specific Plan.[10] The analysis accounts for quantifiable trip reductions achieved by policies and mitigation measures (e.g., TDM measures), including proximity to transit and mixed-use design. Please refer to Appendix 3.2-1 for the CT-EMFAC and EMFAC emission factors and traffic data utilized in this analysis.

Operational Area, Energy, and Stationary Source Emissions

Air quality impacts from other operational sources associated with the buildout of the Phase I Development were evaluated using the same methods and models (e.g., CalEEMod) as described above for the proposed Specific Plan. Quantifiable features that are part of the project design, including exceedance of Title 24 energy standards and water reduction goals, were incorporated into the CalEEMod model. Please refer to Appendix 3.2-1 for modeling assumptions and CalEEMod output files.

Selection of Future Year Baseline Conditions

Similar to the Project air quality analysis, utilizing existing conditions to evaluate criteria pollutant impacts of Phase I Development would potentially misrepresent and mislead the public and decision makers with respect to potential air quality impacts for two reasons: 1) natural vehicle fleet mix turnover, and 2) changes in on-road emissions factors (detailed further above for the Project). Accordingly, the CEQA baseline for the purposes of this air quality analysis is defined as Phase I Development buildout year (2022)[11] conditions. Where appropriate, emissions under existing conditions (2017) are also presented for informational purposes.

3.2.2.3 Impacts and Mitigation Measures

Impact AQ-1a. The Project would not conflict with or obstruct implementation of the applicable air quality plan (Project: Less Than Significant).

Impact AQ-1b. The Phase I Development would not conflict with or obstruct implementation of the applicable air quality plan (Phase I Development: Less Than Significant).

Project and Phase I Development

The CAA requires that a SIP or an air quality control plan be prepared for areas with air quality violating the NAAQS. The SIP sets forth the strategies and pollution control measures that states will use to attain the NAAQS. The CCAA requires attainment plans to demonstrate a 5 percent per year reduction in

[10] Similar to the Specific Plan, this analysis was completed prior to the release of CARB's guidance regarding the SAFE Vehicle Rule Part 1. Therefore, emissions presented for operation do not include the application of the SAFE Vehicle Rule Part 1 adjustment factors. However, the adjustment factors would only result in a 1 to 3% increase in criteria pollutant emissions associated with gasoline vehicles (e.g., tenants, etc.), depending on the pollutant and year, during operation. The ~~Draft~~ EIR preparers considered applying this increase and determined that the neither the conclusions regarding the recommended mitigation measures nor their effectiveness would change.

[11] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emissions factors decline as a function of time due to increasingly stringent air emission standards. Therefore, this analysis is conservative, as actual emissions would be expected to be lower in 2025.

nonattainment air pollutants or their precursors, averaged every consecutive 3-year period, unless an approved alternative measure of progress is developed. Air quality attainment plans (AQAP) outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. The current AQAP for the SFBAAB is the 2017 Clean Air Plan.

According to BAAQMD's (2017a) CEQA Guidelines, the determination of 2017 Clean Air Plan consistency should consider the following for plan-level analyses:

1. Does the plan support the primary goals of the 2017 Clean Air Plan?
2. Does the plan include applicable control measures from the 2017 Clean Air Plan?
3. Does the plan disrupt or hinder implementation of any 2017 Clean Air Plan control measure?

Each of these questions are addressed below for the Specific Plan and Phase I Development.

Support of 2017 Clean Air Plan Goals

The primary goals of the 2017 Clean Air Plan are to (1) reduce emissions and decrease concentrations of harmful pollutants, (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and (3) reduce GHG emissions and protect the climate. The Specific Plan includes numerous policies and improvements that will support regional attainment of the CAAQS and NAAQS. For example, the Specific Plan includes recommended sustainability measures (e.g., green roofs or walls, pervious pavement) (Policies 3-2 and 3-25) that would support sustainable building design, reduction in GHG emissions, and coordination at the local and regional levels to improve local and regional air quality. Several land use, transportation and urban design policies (e.g., Policies 2-18 and 3-7) in the Specific Plan promote alternative modes of transportation, such as walking, biking, and transit, as well as mixed-used design. The proposed transportation improvements identified in the Specific Plan would create stronger links for the pedestrian and bicycle network within the Project Site. For instance, the Specific Plan aims to stripe bicycle lanes, increase bicycle parking availability, install pedestrian-oriented lighting and landscaping, and create high-visibility crosswalks and pedestrian refuges. Additionally, the Specific Plan encourages strengthening access and connection between the Project Site and the regional transit systems including the San Bruno BART and San Bruno Caltrain stations. The Specific Plan also aims to effectively manage transportation demand and parking by supporting programs such as long-haul commuter shuttles and carshare already in place on the Project Site. Several policies (e.g., Policies 4-5, 4-6, and 4-8) further support the maintenance and expansion of the transportation network to enhance connectivity, accessibility, and safety. Together, the proposed improvements and policies would lessen the severity of growth-oriented criteria pollutants by reducing VMT, encouraging transit use, fostering bicycle and pedestrian infrastructure, and supporting sustainable land use patterns, including mixed-use design and increased density. With implementation of the Specific Plan, per capita emissions in 2040 would be lower than forecasted for the Project Site under the 2017 Clean Air Plan, which would not have assumed the transportation improvements and sustainability policies included in the Specific Plan. Reductions in per capita emissions would further help the region attain the ambient air quality standards.

The Specific Plan also includes policies to protect public health and reduce GHG emissions. Specifically, Policy 6-11 requires new development near TAC sources be designed to minimize any potential health risks to adjacent existing receptors. Operational activities would be further guided by Policy 6-13 which supports preparation of loading plans to minimize truck emissions, and retrofit of generators with best availability control technology to meet CARB emission standards. Strategies that reduce VMT and energy consumption will also lower public health effects of adverse air quality since they will reduce overall emissions generated by development supported by the Specific Plan.

Similar to the Specific Plan, the Phase I Development incorporates sustainability measures that support the primary goals of the 2017 Clean Air Plan. The Phase I Development would meet United States Green Building Council's LEED v4 LEED Silver or equivalent certification standards or equivalent, exceeding the 2016 Title 24 standards by approximately 16 percent through actions such as installing Energy Star appliances. The Phase I Development would install trash/recyclable/compostable receptacles, where the generation of all waste is tracked by weight on a monthly basis. Indoor water conservation features such the installation of low-flow fixtures and water conserving appliances would be implemented. Outdoor water conservation measures include installation and maintenance of water-efficient landscaping with low-usage plant material to minimize irrigation requirements. Furthermore, the Phase I Development would comply with all applicable City and State measures, including Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, and the 2016 California Green Building Standards Code, commonly referred to as CALGreen.

Based on the above analysis, the Specific Plan and the Phase I Development each would support the primary goals of the 2017 Clean Air Plan.

Applicable Control Measures

To meet the primary goals, the 2017 Clean Air Plan recommends specific control measures and actions. These control measures are grouped into various categories and include stationary source measures, mobile-source measures, and transportation control measures. The 2017 Clean Air Plan recognizes that community design dictates individual travel mode and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and GHGs from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand and people have a range of viable transportation options. To this end, the 2017 Clean Air Plan includes control measures that are aimed at reducing air pollution in the SFBAAB.

The measures most applicable to the Project are transportation, energy, building, waste management, water, and stationary source control measures. These measures include the following:

- TR1 Clean Air Teleworking Initiative—Develop teleworking best practices for employers and develop additional strategies to promote telecommuting. Promote teleworking on Spare the Air Days.
- TR2: Trip Reduction Programs—Implement the regional Commuter Benefits Program (Rule 14-1) that requires employers with 50 or more Bay Area employees to provide commuter benefits. Encourage trip reduction policies and programs in local plans, e.g., general and specific plans while providing grants to support trip reduction efforts. Encourage local governments to require mitigation of vehicle travel as part of new development approval, to adopt transit benefits ordinances in order to reduce transit costs to employees, and to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips. Fund various employer-based trip reduction programs.
- TR8: Ridesharing, Last-Mile Connection—Promote carpooling and vanpooling by providing funding to continue regional and local ridesharing programs, and support the expansion of carsharing programs. Provide incentive funding for pilot projects to evaluate the feasibility and cost-effectiveness of innovative ridesharing and other last-mile solution trip reduction strategies. Encourage employers to promote ridesharing and carsharing to their employees.

- TR9: Bicycle and Pedestrian Access and Facilities—Encourage planning for bicycle and pedestrian facilities in local plans, e.g., general and specific plans, fund bike lanes, routes, paths and bicycle parking facilities.
- TR13: Parking Policies—Encourage parking policies and programs in local plans, e.g., reduce minimum parking requirements; limit the supply of off-street parking in transit-oriented areas; unbundle the price of parking spaces; support implementation of demand-based pricing (such as "SF Park") in high-traffic areas.
- TR14: Cars and Light Trucks—Commit regional clean air funds toward qualifying vehicle purchases and infrastructure development. Partner with private, local, state and federal programs to promote the purchase and lease of battery-electric and plug-in hybrid electric vehicles
- TR15: Public Outreach and Education—Implement the Spare the Air Every Day Campaign including Spare the Air alerts, employer program, and community resource teams, a PEV Outreach campaign and the Spare the Air Youth Program.
- TR19: Medium and Heavy Duty Trucks—Directly provide, and encourage other organizations to provide, incentives for the purchase of 1) new trucks with engines that exceed ARB's 2010 NOX emission standards for heavy-duty engines, 2) new hybrid trucks, and 3) new zero-emission trucks. The Air District will work with truck owners, industry, CARB, the California Energy Commission, and others to demonstrate additional battery-electric and hydrogen fuel cell zero-emission trucks.
- TR23: Lawn and Garden Equipment—Seek additional funding to expand the Commercial Lawn and Garden Equipment Replacement Program into all nine Bay Area counties. Explore options to expand Lawn and Garden Equipment Program to cover shredders, stump grinders and commercial turf equipment.
- EN2 Decrease Electricity Demand—Work with local governments to adopt additional energy efficiency policies and programs. Support local government energy efficiency program via best practices, model ordinances, and technical support. Work with partners to develop messaging to decrease electricity demand during peak times.
- BL1 Green Buildings—Collaborate with partners such as KyotoUSA to identify energy-related improvements and opportunities for onsite renewable energy systems in school districts; investigate funding strategies to implement upgrades. Identify barriers to effective local implementation of the CALGreen (Title 24) statewide building energy code; develop solutions to improve implementation/enforcement. Work with ABAG's BayREN program to make additional funding available for energy-related projects in the buildings sector. Engage with additional partners to target reducing emissions from specific types of buildings.
- BL2 Decarbonize Buildings—Explore potential Air District rulemaking options regarding the sale of fossil fuel-based space and water heating systems for both residential and commercial use. Explore incentives for property owners to replace their furnace, water heater or natural-gas powered appliances with zero-carbon alternatives. Update Air District guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.
- BL4 Urban Heat Island Mitigation—Develop and urge adoption of a model ordinance for "cool parking" that promotes the use of cool surface treatments for new parking facilities, as well as existing surface lots undergoing resurfacing. Develop and promote adoption of model building

code requirements for new construction or re-roofing/roofing upgrades for commercial and residential multi-family housing. Collaborate with expert partners to perform outreach to cities and counties to make them aware of cool roofing and cool paving techniques, and of new tools available.

- NW2: Urban Tree Planting—Develop or identify an existing model municipal tree planting ordinance and encourage local governments to adopt such an ordinance. Include tree planting recommendations, the Air District's technical guidance, best practices for local plans and CEQA review.
- WA3: Green Waste Diversion—Develop model policies to facilitate local adoption of ordinances and programs to reduce the amount of green waste going to landfills.
- WA4: Recycle and Waste Reduction—Develop or identify and promote model ordinances on community-wide zero waste goals and recycling of construction and demolition materials in commercial and public construction projects.
- WR2: Support Water Conservation—Develop a list of best practices that reduce water consumption and increase on-site water recycling in new and existing buildings; incorporate into local planning guidance.
- SS32: Emergency Backup Generators—Reduce emissions of diesel particulate matter and black carbon from backup generators through Draft Rule 11-18, resulting in reduced health risks to impacted individuals, and in climate protection benefits.

The Specific Plan includes policies that encourage mixed-used and dense development which aims at reducing VMT, which policies will apply to the Phase I Development. For instance, the Specific Plan prioritizes transit and pedestrian connectivity, requires applicants to develop TDM programs, supports transit priority measures, and enhances existing and constructs new transit infrastructure through improvements such as design of the street network to slow motor vehicle speeds and construction of new transit shelters, (e.g., Policies 4-1, 4-3, 4-6, and 4-8). Improvements such as widening sidewalks with planted buffers, planting trees and installing other landscaping (e.g., shrubs as opposed to grassed areas), enhancing connections with the San Bruno BART and San Bruno Caltrain stations, and striping of bicycle lanes would support alternative modes of transportation and foster sustainable land use patterns (e.g., mixed-use and increased density) within the Project Site. In addition, the Specific Plan would encourage the implementation of sustainability features, such as electric space and water heating, green roofs, and waste diversion programs that reduce resource consumption and reduce criteria pollutant and GHG emissions. More specifically, the Phase I Development would implement TDM measures that would reduce VMT and incorporate sustainability design measures, such as exceeding Title 24 standards by 16 percent, meeting LEED v4 LEED Silver or equivalent Certification standards, incorporating a robust waste diversion program, installing low-flow building fixtures, and installing low-maintenance drought tolerant landscaping that would reduce criteria pollutant and GHG emissions. Therefore, the Specific Plan and the Phase I Development would support the applicable control measures identified in the 2017 Clean Air Plan to meet the plan's primary goals.

Disrupt or Hinder Implementation of 2017 Clean Air Plan Control Measures

As discussed above, the Specific Plan includes numerous policies that promote mixed-use development, alternative modes of transportation, renewable energy, and sustainable land use design, and the Phase I Development incorporates many such policies into its design. Neither the Specific Plan nor the Phase I Development would cause the disruption, delay, or otherwise hinder implementation of any applicable control measure from the 2017 Clean Air Plan. Rather, the Project would support and facilitate their implementation. For example, the Specific Plan encourages sustainability measures such as use of promotion of energy demand response programs, sustainable building design (e.g., sustainable building and paving materials), xeriscape landscaping, green roofs, and supporting local and regional transit services such as BART and Caltrain. Similarly, the Phase I Development would implement TDM and transit priority measures that would promote alternative modes of transpiration such as transit, walking, and bicycling. Accordingly, the Project, inclusive of the Phase I Development, would not preclude an extension of transit. Similarly, the Project would allow future developments the ability to reduce parking requirements with a parking management or TDM plan, and would not disrupt or hinder implementation of any applicable 2017 Clean Air Plan control measure related to parking. Rather the Specific Plan contains additional parking policies to reduce motor vehicle travel (e.g., Policy 4-4), monitor parking demand, and require annual travel surveys to evaluate the effectiveness of onsite programs, as well as the transportation demand measures to be implemented by the Phase I Development (described under Impact AQ-2).

Based on the above analysis, the Project, inclusive of the Phase I Development, would support implementation of the 2017 Clean Air Plan. Accordingly, development under the Specific Plan and the Phase I Development would not fundamentally conflict with the 2017 Clean Air Plan and would have a ***less than significant*** air quality impact. No mitigation measures are required.

Impact AQ-2a. The Project could result in a cumulatively considerable net increase of a criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard during construction and operation (Project: Significant and Unavoidable)

Impact AQ-2b. The Phase I Development would not result in a cumulatively considerable net increase of a criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard during construction and operation (Phase I Development: Less Than Significant with Mitigation)

Project

Construction

Construction associated with new land use developments that would be permitted under the proposed Specific Plan would result in the temporary generation of ozone precursors (ROG, NO_X), CO, and particulate matter emissions that could result in short-term impacts on ambient air quality within the Project Site. Emissions would originate from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, haul trucks carrying TAC materials, land clearing, demolition, architectural coatings, and asphalt paving. Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content.

By its nature as a specific plan, the Project does not propose any specific development. At this time the Phase I Development is the only development proposal under the Specific Plan. As discussed in Chapter 2, *Project Description*, YouTube has identified four additional phases of future development for its properties, which are permitted under the Specific Plan. Additional development by other property owners within the Project Site could also occur, as permitted under the Specific Plan. The exact types and sizes of future development under the Specific Plan would be driven by market conditions. It is anticipated that throughout the course of the buildout period, multiple land use development projects would be constructed intermittently within the Project Site. As the timing and intensity of future development projects is not known at this time, the precise effects of construction activities associated with buildout of the Project Site cannot be accurately quantified at this time. As noted previously, the BAAQMD's project-level thresholds were developed to analyze emissions generated by a single project. While the construction emission impacts associated with each new individual development would be short-term in nature (relative to the buildout year) and limited to the period of time when construction activity is taking place for that particular development, the concurrent construction of a multitude of individual development projects that could occur at any one time in the Project Site under the Specific Plan would generate combined criteria pollutant emissions on a daily basis that could exceed BAAQMD's project-level thresholds. Additionally, depending on the size and scale of an individual development project, along with its construction schedule and other parameters, there may also be instances where the daily construction emissions generated by a single development project within the Project Site could also exceed BAAQMD's criteria pollutant thresholds. As such, construction emissions generated in the Project Site by implementation of the proposed Plan would result in a potentially significant impact on air quality. These emissions could contribute to ozone formation and other air pollution in the SFBAAB, which at certain concentrations, can contribute to short- and long-term human health effects, if left unmitigated.

During construction of a development project, the activity that typically generates the highest NO_X and PM exhaust emissions is the operation of off-road equipment, whereas the activity that typically generates the highest ROG emissions is the application of architectural coatings. Per **Mitigation Measures AQ-1 through AQ-4**, the use of at least Tier 4 engines and renewable diesel for off-road equipment, which is commercially available in the San Francisco Bay Area, and newer trucks to reduce NOx and PM exhaust emission levels and use of low-VOC paints to reduce ROG emission levels would be required during construction activities within the Project Site. Additionally, while the BAAQMD considers fugitive PM10 and PM2.5 dust emissions significant without the application of standard best management practices (BMPs), **Mitigation Measure AQ-5** would require construction projects within the Project Site to implement BMPs as recommended by the BAAQMD to reduce these fugitive dust emissions. Thus, the implementation of BMPs under this measure for projects under the Specific Plan would reduce fugitive PM10 and PM2.5 emissions to less-than-significant levels for the Specific Plan.

However, with respect to ROG, NOx and PM10 and PM2.5 exhaust emissions, there could be foreseeable conditions under the Specific Plan where the amount of construction activity for an individual development project, or a combination of projects, could result in the generation of pollutant emissions that exceed their respective BAAQMD significance thresholds (i.e., 54 pounds/day for ROG and NOx, 82 pounds per day for exhaust PM10, and 54 pounds/day for exhaust PM2.5). Moreover, even with implementation of **Mitigation Measures AQ-1 through AQ-5** in addition to the policies described under Impact AQ-1, emissions of ROG, NOx, PM10, and PM2.5 exhaust may not be reduced to levels below BAAQMD's thresholds when multiple construction projects are concurrently ongoing within the Project Site. Accordingly, additional mitigation would be required to reduce these emissions impacts to a less-than-significant level. Pursuant to **Mitigation Measure AQ-6**, applicants would be required to track all land use development construction activities occurring within the Project Site, assess and determine the estimated total emissions for all construction activities that would be concurrently ongoing (subject to City review and approval), and coordinate with an independent third-party approved by the City, such as the Bay Area Clean Air Foundation ~~BAAQMD to determine the mitigation fees for each development project's applicant to pay on a pro rata basis to BAAQMD~~ to offset their pollutant emissions as necessary such that BAAQMD's daily pollutant thresholds would not be exceeded. Based on recent experience of offsets being feasibly available for other large recent projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and thus that emissions can be reduced below threshold levels. Should offsets programs be available for future development, **Mitigation Measure AQ-6** would ensure that the construction-related emissions would not contribute to a significant level of air pollution such that regional air quality within the SFFAB would be degraded and project impacts on air quality would be less than significant with mitigation. However, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, construction air quality impacts are conservatively assumed to be ***significant and unavoidable.***

Mitigation Measures AQ-2, AQ-3, AQ-4, and AQ-6 are not required for the Phase I Development, which is analyzed separately below.

Operation

The Specific Plan would be constructed in multiple phases, with operations occurring concurrently with construction. Therefore, operational emissions would include overlapping construction emissions. As described above, this analysis provides a quantified analysis of operational emissions based on the proposed land use mix and trip volumes, and a qualitative analysis of construction emissions because specific construction details for individual developments under the Specific Plan (other than the Phase I Development, discussed below) are not known at this time.

Buildout of the Project Site under the Specific Plan has the potential to result in air quality impacts from area, energy, mobile, and stationary sources. Area sources would include landscaping equipment, off-gassing during the reapplication of architectural coatings, and consumer products (e.g., solvents, cleaning supplies, cosmetics, toiletries). Energy sources would include onsite natural gas combustion for space and water heating. Mobile sources would include vehicle trips generated by land uses proposed within the Project Site. Stationary sources would include the testing of emergency generators. Each of these sources was taken into account in calculating the Specific Plan's long-term operational emissions, which were quantified using CalEEMod model for area, energy, and stationary sources and CT-EMFAC for mobile sources, as described above.

Table 3.2-6 summarizes daily area, energy, mobile, and stationary source emissions generated under existing conditions (2017) and 2040 conditions with and without the Specific Plan. To evaluate the magnitude of the change in the air quality environment due to implementation of the Specific Plan, the emissions under the Specific Plan buildout in 2040 are compared to 2040 ~~the~~ emissions without the Project ~~under existing conditions~~.

Table 3.2-6. Estimated Maximum Daily Unmitigated Emissions from the Specific Plan (pounds/day)

Condition/Source	ROG	NOx	CO	PM10	PM2.5
Existing (2017)					
Area Sources	43	0	0	0	0
Energy Sources	1	9	7	1	1
Mobile Sources	23	61	322	188	32
Stationary Sources	4	17	10	1	1
Total Existing [a]	71	87	339	190	33
2040 Without Specific Plan					
Area Sources	43	0	0	0	0
Energy Sources	1	9	7	1	1

Condition/Source	ROG	NOx	CO	PM10	PM2.5
Mobile Sources	9	18	127	206	34
Stationary Sources	4	17	10	1	1
Total 2040 Without Specific Plan [a]	56	44	144	207	35
2040 With Specific Plan					
Area Sources	97	0	0	0	0
Energy Sources	2	21	18	2	2
Mobile Sources	32	65	454	739	121
Stationary Sources	6	28	16	1	1
Total 2040 With Specific Plan [a]	137	114	488	741	123
Net Increase with Specific Plan					
2040 With Specific Plan v. 2040 Without Specific Plan ~~Existing~~ [a]	80~~66~~	~~27~~70	~~149~~344	~~552~~534	~~90~~88

Source: CalEEMOD and CT-EMFAC. See Appendix 3.2-1.
Notes:
For the 2040 With Specific Plan condition, the daily emissions presented are maximums anticipated under the Maximum Office Scenario. If the allowable land use exchange to hotel or retail under the equivalency program would result in higher emissions than the base office use, those emissions are shown here. Therefore, the total emissions represent the worst-case scenario.
[a] See note above. Values may not add up due to rounding.

As shown in Table 3.2-6, buildout of the Specific Plan (assuming the worst-case Maximum Office Scenario) would result in a net increase of approximately 80~~66~~ pounds of ROG, 344 pounds of CO, 70~~27~~ pounds of NOx, 534~~52~~ pounds of PM10, and 88~~90~~ pounds of PM2.5 per day compared to 2040 without the Specific Plan ~~existing conditions~~. These emissions could contribute to ozone formation and other air pollution in the SFBAAB, which at certain concentrations, can contribute to short- and long-term human health effects, if left unmitigated.

As discussed above, BAAQMD's project-level thresholds were developed to analyze emissions generated by a single project, and as such offer an extremely conservative evaluation of emissions from an entire specific plan. Accordingly, operational air quality impacts of the proposed Plan are evaluated for consistency with the 2017 Clean Air Plan to determine whether criteria pollutant emissions attributed to population and economic growth are significant (refer to Impact AQ-1, above). The analysis demonstrates that the Specific Plan would support the goals of the 2017 Clean Air Plan, including all applicable control measures, and would not conflict with its implementation.

While the Specific Plan would reduce the severity of growth-oriented criteria pollutants by fostering bicycle and pedestrian infrastructure, and support sustainable land use patterns, including mixed-use design and increased density, individual projects developed under the Specific Plan may still generate emissions in excess of BAAQMD's project-level thresholds. Accordingly, operational criteria pollutant emissions associated with development under the Specific Plan are conservatively identified as potentially significant.

The Specific Plan includes numerous proposed improvements and policies to reduce VMT, increase energy efficiency, and reduce energy consumption. For instance, the Specific Plan aims to stripe bicycle lanes, increase bicycle parking availability, install pedestrian-oriented lighting and landscaping, and create high-visibility crosswalks and pedestrian refuges. Additionally, the Specific Plan encourages strengthening access and connection between the Project Site and the regional transit systems including the San Bruno BART and San Bruno Caltrain stations. Several policies (e.g., Policies 4-5, 4-6, 4-7, and 4-8) further support the maintenance and expansion of the transportation network to enhance connectivity, accessibility, and safety. Together, the proposed improvements and policies would lessen the severity of growth-oriented criteria pollutants by reducing VMT, encouraging transit use, fostering bicycle and pedestrian infrastructure, and supporting sustainable land use patterns, including mixed-use design and increased density. In terms of energy efficiency and energy consumption, the Specific Plan includes policies that aim to reduce energy use and promote energy demand response programs (Policy 6-17), and implement sustainable building design that reduces energy consumption (Policy 3-25).

Despite these Specific Plan policies, it is reasonably foreseeable that projects developed under the Specific Plan would generate emissions in excess of BAAQMD's project-level thresholds. Implementation of **Mitigation Measure TRA-1** in Section 3.10, *Transportation* is required to reduce mobile source emissions. This measure requires a reduction of the drive alone percentage from 54 percent to 43 percent, an annual monitoring study to be completed by Project Site property owners, and ongoing monitoring and evaluation. This would be accomplished through provisions such as bicycle storage and car-sharing programs. Based on anticipated reductions in VMT, **Mitigation Measure TRA-1** would reduce mobile source emissions during operation to 30 pounds of ROG, 57 pound of NOx, 643 pounds of PM10, and 105 pounds of PM2.5 per day. Mitigation Measure TRA-1 is not required for the Phase I Development, which is analyzed separately below.

Mitigation Measure AQ-7 is further required to offset operational criteria pollutant emissions resulting from development under the Specific Plan through the purchase of mitigation credits. Through implementation of **Mitigation Measures AQ-7**, applicants would determine the estimated total emissions for operational activities and ~~BAAWMD would determine the mitigation fees for each development project's applicant to pay on a pro rata basis to BAAQMD~~ coordinate with an independent third-party approved by the City, such as the Bay Area Clean Air Foundation to offset their pollutant emissions as necessary such that BAAQMD's daily pollutant thresholds would not be exceeded. Offsetting emissions below BAAQMD's threshold levels would ensure future development under the Specific Plan would not contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Based on recent experience of offsets being feasibly available for other large recent projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and thus that emissions can be reduced below threshold levels. Should offset programs be available for future development, operational criteria pollutant emissions under the Specific Plan would be less than significant with mitigation. However, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, operational air quality impacts are conservatively assumed to be ***significant and unavoidable.***

Mitigation Measures

Mitigation Measure AQ-1: Require At Least Tier 4 Final Engines on Construction Equipment.

All applicants proposing development of projects within the Project Site shall require their contractors, as a condition of contract, to further reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall operate on at least an EPA-approved Tier 4 Final or newer engine. The Community & Economic Development Director may consider requests for e~~E~~xemptions ~~can be made~~ for specialized equipment where a contractor documents that Tier 4 engines are not commercially available within 200 miles of the Project Site. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA-approved Tier 3 engine.

Mitigation Measure AQ-2: Require Use of Diesel Trucks with 2010-Compliant Model Year Engines.

All applicants proposing development of projects within the Project Site other than the Phase I Development shall require their contractors, as a condition of contract, to use diesel trucks that have 2010 model year or newer engines, but no less than the average fleet mix for the current calendar year as set forth in the CARB's EMFAC database. In the event that 2010 model year or newer diesel trucks cannot be obtained, the contractor must provide documentation to the City showing that a good faith effort to locate such engines was conducted.

Mitigation Measure AQ-3: Require Construction Fleet to Use Renewable Diesel.

All applicants proposing development of projects within the Project Site other than the Phase I Development shall require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall operate on renewable diesel (such as high performance renewable diesel).

Mitigation Measure AQ-4: Require Low-VOC Coatings during Construction.

All applicants proposing development of projects within the Project Site other than the Phase I Development shall require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings that have a VOC content of 10 grams/liter (g/L) or less are used during construction. The project applicant will submit evidence of the use of low-VOC coatings to BAAQMD prior to the start of construction.

Mitigation Measure AQ-5: Require Fugitive Dust Best Management Practices.

All applicants proposing development of projects within the Project Site shall require their contractors, as a condition of contract, to reduce construction-related fugitive dust by implementing BAAQMD's basic control measures <u>in effect at that time of construction</u> at all construction and staging areas. The following measures are based on BAAQMD's current CEQA guidelines.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material offsite will be covered.
- All visible mud or dirt track-out onto adjacent public roads will 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, driveways, or driving surfaces shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.
- Post a publicly visible sign with the telephone number and the name of the person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The phone number of the BAAQMD will also be visible to ensure compliance.

Mitigation Measure AQ-6: Purchase of Mitigation Credits for Construction Emissions Exceeding BAAQMD's Daily Pollutant Thresholds.

Applicants proposing development of projects within the Project Site other than the Phase I Development shall compare their project size with the BAAQMD screening sizes appropriate to their project for construction criteria pollutants found in Table 3-1 in BAAQMD's current CEQA guidelines (2017). The screening limit for general office buildings, office park, or government office building is 277,000 square feet. There are different screening limits for residential, retail, hotels, and other developments. If the project is less than the screening limit for its project type, then Applicants shall confirm to the City whether construction-related activities would include any of the following:

- Demolition;
- Simultaneous occurrence of more than two construction phases (e.g., paving and building construction would occur simultaneously) or construction would occur simultaneous with other Specific Plan development;
- Simultaneous construction of more than one land use type (e.g., project would develop residential and commercial uses on the same site) (not applicable to high density infill development);
- Extensive site preparation (i.e., greater than default assumptions used by the CalEEMod model for grading, cut/fill, or earth movement); or
- Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity.

If the project is less than the screening limit for the project type and construction would involve none of the 5 conditions above, then the project is not required to pay for construction emissions offsets.

Project applicants not excluded by the conditions above shall estimate annual average emissions for each year of construction and compare the annual average emissions for each year of construction to the BAAQMD thresholds used in the EIR for criteria pollutants. The emissions estimate shall be provided as part of the project's initial application to the City for the project. The City will review the estimate and confirm whether offsets are required for construction. Should the City-confirmed estimate indicate that the proposed development estimate would not result in construction emissions exceeding BAAQMD's daily pollutant thresholds, no further action will be required.

For proposed developments that are estimated to result in exceedances of thresholds, the applicants shall coordinate with a third-party or governmental entity to pay for criteria pollutant offsets for every year in which construction emissions are estimated to exceed the BAAQMD thresholds. If the estimate shows exceedances of multiple criteria pollutants above the BAAQMD thresholds, then offsets must be obtained to address each pollutant above the thresholds. Emission reduction projects and fee will be determined in consultation between the applicant and the third-party or governmental entity and will include offset provider administrative costs. <u>Applicants shall identify credits within the San Francisco Bay Area Air Basin, and shall prioritize programs that benefit the Bayhill community, the City, or the Bay Area region, in that order.</u> The agreement that specifies fees and timing of payment shall be provided to the City for review and signed by the applicant and the third-party or governmental entity. The emission reductions shall be secured prior to any year in which construction activity is estimated to result in an exceedance. The payment for the emissions can either be on an annual basis or done once upfront prior to construction.

Mitigation Measure AQ-7: Purchase of Mitigation Credits for Operational Emissions Exceeding BAAQMD's Daily Pollutant Thresholds.

Applicants proposing development of projects within the Project Site other than the Phase 1 Development shall compare their project size with the BAAQMD screening sizes appropriate to their project for operational criteria pollutants found in Table 3-1 in BAAQMD's current CEQA guidelines (2017). The screening limit for general office buildings, office park, or government office building is 346,000 square feet, 323,000 square feet, and 61,000 square feet, respectively. There are different screening limits for residential, retail, hotels, and other developments.

If the project is less than the screening limit for the project type, then the project is not required to pay for operational emissions offsets.

Project applicants not excluded by the condition above shall estimate annual average operational emissions for each operational year over the life of the project (30 years) and compare the annual average emissions for each year of construction to the BAAQMD thresholds used in the EIR for criteria pollutants. The emissions estimate shall be provided as part of the project's initial application to the City for the project. The City will review the estimate and confirm whether offsets are required for operation. Should the City-confirmed estimate indicate that the proposed development estimate would not result in operational emissions exceeding BAAQMD's daily pollutant thresholds, no further action would be required.

For proposed developments that are estimated to result in exceedances of thresholds during any year of the project's life, the applicants shall coordinate with a third-party or governmental entity to pay for criteria pollutant offsets for every year in which operational emissions are estimated to exceed the BAAQMD thresholds. If the estimate shows exceedances of multiple criteria pollutants above the BAAQMD thresholds, then offsets must be obtained to address each pollutant above the thresholds. Emission reduction projects and fee will be determined in consultation between the applicant and the third-party or governmental entity and will include offset provider administrative costs. Applicants shall identify credits within the San Francisco Bay Area Air Basin, and shall prioritize programs that benefit the Bayhill community, the City, or the Bay Area region, in that order. The agreement that specifies fees and timing of payment shall be provided to the City for review and signed by the applicant and the third-party or governmental entity. The emission reductions shall be secured prior to any year in which operational activity is estimated to result in an exceedance. The payment for the emissions can either be on an annual basis or done once upfront prior to operation.

Mitigation Measure TRA-1: please see Mitigation Measure TRA-1 in Section 3.10, *Transportation.* This mitigation measure is not required for the Phase I Development.

Phase I Development

Construction

The types of construction emissions generated for the Phase I Development would be similar to those described above for the Specific Plan. Construction activities for the Phase I Development include the demolition of three structures, construction of two new office buildings, utility installations, realignment of Grundy Lane, and construction of a transit hub. These activities would require mobile and stationary construction equipment and on-road vehicles such as haul trucks for demolition debris and vendor trucks for deliveries. Site grading and excavation would be required for building foundations, utilities, and pervious pavement and landscaping. Estimated unmitigated and mitigated criteria pollutant emissions are presented in Table 3.2-7 and 3.2-8, respectively.

Table 3.2-7. Estimated Unmitigated Maximum Daily Construction Emissions from Phase I Development (pounds/day)[a]

				PM10			PM2.5		
Year	**ROG**	**NOx**	**CO**	**Dust**	**Exhaust**	**Total**	**Dust**	**Exhaust**	**Total**
2020	14	128	111	45	4	49	19	3	22
2021	53	67	149	52	2	54	14	2	16
2022	15	73	120	54	2	56	15	2	17
Threshold	54	54	-	BMPs	82	-	BMPs	54	-
Exceed Threshold?	No	Yes	-	No	No	-	No	No	-

Source: CalEEMOD and CT-EMFAC. See Appendix 3.2-1
[a] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development ~~is 2022~~ was later updated to 2025. Equipment and vehicle emission factors decline as a function of time due to increasingly stringent air emission standards. Therefore~~, if construction of the Phase I Development were to extend to 2023,~~ this analysis ~~would be~~ is conservative, as actual emissions ~~may~~ would be expected to be lower in ~~2023~~2025.

Table 3.2-8. Estimated Mitigated Maximum Daily Construction Emissions from Phase I Development (pounds/day) [a]

				PM10			PM2.5		
Year	**ROG**	**NOx**	**CO**	**Dust**	**Exhaust**	**Total**	**Dust**	**Exhaust**	**Total**
2020	9	52	126	45	<1	46	19	<1	19
2021	51	41	154	52	<1	52	14	<1	14
2022	11	31	120	54	<1	55	15	<1	16
Threshold	54	54	-	BMPs	82	-	BMPs	54	-
Exceed Threshold?	No	No	-	No	No	-	No	No	-

Source: CalEEMOD and CT-EMFAC. See Appendix 3.2-1
Note: Emissions presented in this table assume the implementation of **Mitigation Measure AQ-1 and AQ-**5.
[a] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development ~~is 2022~~ was later updated to 2025. Equipment and vehicle emission factors decline as a function of time due to increasingly stringent air emission standards. Therefore, ~~if construction of the Phase I Development were to extend to 2023~~, this analysis ~~would be~~ is conservative, as actual emissions ~~may~~ would be expected to be lower in ~~2023~~ 2025.

As shown in Table 3.2-7, construction of the Phase I Development would generate NOx emissions in excess of BAAQMD's significance threshold during construction and would result in a potentially significant air quality impact. In addition, fugitive dust emissions would also be significant without the application of standard BMPs. Implementation of **Mitigation Measure AQ-1** would reduce construction-related NO_X to below BAAQMD's threshold, as shown in Table 3.2-8. **Mitigation Measure AQ-5** would also reduce fugitive dust emissions, consistent with BAAQMD guidance. As emissions would be below BAAQMD's NOx numeric threshold and consistent with BAAQMD guidance with mitigation, implementation of other Specific Plan mitigation measures (i.e., Mitigation Measures AQ-2, AQ-3, AQ-4, and AQ-6) would not be required. As such, construction emissions would not be expected to contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Therefore, construction-related criteria pollutant impacts would be ***less than significant with mitigation.***

Operation

The types of operational criteria pollutants emissions for the Phase I Development would be similar to those described above for the Specific Plan. Operational criteria pollutant emissions were evaluated under existing conditions ~~year~~ (2017) and 2022 conditions with and without the Phase I Development ~~buildout year (2022) conditions.~~[12] The analysis includes quantifiable sustainability measures that are incorporated into the project design, including exceedance of Title 24 energy standards by 16 percent, reduction of indoor water use by 25 percent, and use of green consumer products. The Phase I Development's net criteria pollutant emissions are determined by taking the difference in operational emissions between "2022 with Phase I Development" conditions and "2022 Without Phase I Development" ~~existing (2017)~~ emissions. Table 3.2-9 presents the results of the analysis.

Table 3.2-9. Estimated Maximum Daily Unmitigated Operational Emissions for the Phase I Development (pounds/day)

Condition/Source	ROG	NOx	CO	PM10	PM2.5
Existing (2017)					
Area Sources	8	0	0	0	0
Energy Sources	0	2	1	0	0
Mobile Sources	23	61	322	188	32
Stationary Sources	1	6	3	0	0
Total Existing[a]	33	68	327	189	32
2022[b] Without Phase I Development					
Area Sources	8	0	0	0	0
Energy Sources	0	2	1	0	0
Mobile Sources	15	32	190	197	33
Stationary Sources	1	6	3	0	0
Total 2022 Without Phase I Development[a]	25	39	195	197	33
2022[b] With Phase I Development					
Area Sources	14	0	0	0	0
Energy Sources	0	3	2	0	0
Mobile Sources	31	53	311	313	52
Stationary Sources	4	17	10	1	1
Total With Phase I Development[a]	50	72	323	314	53
Net Increase With Phase I Development					
2022 With Phase I Development v. ~~Existing[a]~~ 2022 Without Phase I Development[a,b]	17	33~~4~~	~~-4~~129	~~125~~117	~~21~~20
Threshold	54	54	-	82	54
Exceed Threshold?	No	No	-	Yes	No

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs and mobile emissions calculations.

[12] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emission factors decline as a function of time due to increasingly stringent air emission standards. Therefore, this analysis is conservative, as actual emissions would be expected to be lower in 2025.

Condition/Source	ROG	NOx	CO	PM10	PM2.5

Notes: As noted above, the analysis includes benefits achieved by the quantifiable sustainability measures incorporated as project commitments and implementation of state measures that will reduce criteria air pollutant emissions

[a] Totals may not add up due to rounding.

[b] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emission factors decline as a function of time due to increasingly stringent air emission standards. Therefore, this analysis is conservative, as actual emissions would be expected to be lower in 2025.

As shown in Table 3.2-9, the Phase I Development would result in a net increase of approximately 17 pounds of ROG, 33~~4~~ pounds of NOx, 129 pounds of CO, 117~~25~~ pounds of PM10, and 20~~1~~ pounds of PM2.5 per day, exceeding BAAQMD's thresholds for PM10 during operation. The increase in PM10 is primarily generated by mobile sources (additional vehicles traveling throughout the region resuspend dust on the roadways, resulting in an increase in PM10). ~~The Phase I Development would reduce CO by about 4 pounds per day. The decrease in CO would be due to decreasing emission factors over time as vehicles become more efficient.~~

Implementation of **Mitigation Measure TRA-2** in Section 3.10, *Transportation*, which requires the implementation of a TDM program that results in similar VMT reductions as YouTube's current program, an annual monitoring study, and continued monitoring and evaluation, would reduce mobile source emissions during operation to 29 pounds of ROG, 44 pound of NOx, 254 pounds of PM10, and 42 pounds of PM2.5 per day. Thus, mitigated emissions (net increase of 57~~66~~ pounds) would not exceed BAAQMD's PM10 thresholds of 82 pounds per day. Accordingly, operational source air quality impacts under the Phase I Development would be ***less than significant with mitigation***.

Mitigation Measures

Mitigation Measure AQ-1: Refer to Specific Plan impact above.

Mitigation Measure AQ-5: Refer to Specific Plan impact above.

Mitigation Measures TRA-2: please see Mitigated Measure TRA-2 in Section 3.10, *Transportation.* This mitigation measure is only required for the Phase I Development.

Impact AQ-3a. The Project could result in the exposure of sensitive receptors to substantial TAC concentrations during construction and operation (Project: Significant and Unavoidable), and could result in the exposure of sensitive receptors to substantial criteria pollutant concentrations during construction and operation (Project: Significant and Unavoidable).

Impact AQ-3b. The Phase I Development would not result in the exposure of sensitive receptors to substantial TAC concentrations or criteria pollutant concentrations during construction and operation (Phase I Development: Less Than Significant with Mitigation).

Project

The primary pollutants of concern to human health generated by the Plan construction are criteria pollutants and toxic air containments. Both pollutants and their potential impacts on receptors are analyzed below.

Criteria Pollutants

The California Supreme Court's 2018 decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502) (hereafter referred to as the Friant Ranch Decision) reviewed the long-term, regional air quality analysis contained in the EIR for the proposed Community Plan Update and Friant Ranch Specific Plan (Friant Ranch Project). The Friant Ranch Project is a 942-acre master-plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment under the NAAQS and CAAQS for ozone and PM2.5. The Court found that the EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The Court's decision clarifies that environmental documents must attempt to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

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

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. Appendix 3.2-1 summarizes many of these tools, identifies the analyzed pollutants, describes their intended application and resolution, and analyzes whether they could be used to reasonably correlate project-level emissions to specific health consequences. As described in Appendix 3.2-1, while there are models capable of quantifying ozone and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating project-generated criteria pollutants to the locations where specific health effects could occur or the resultant number of additional days of nonattainment cannot be achieved with any degree of accuracy.

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the SJVAPCD and South Coast Air Quality Management District (SCAQMD), who provided amici curiae briefs for the Friant Ranch legal proceedings. In its brief, SJVAPCD (2015) acknowledges that while health risk assessments for localized air toxics, such as DPM, are commonly prepared, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task." SJVAPCD further notes that emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NOx and VOC in the Valley) is not likely to yield valid information," and that any such information should not be "accurate when applied at the local level." SCAQMD (2015) presents similar information in their brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels".[13] The Sacramento Metropolitan Air Quality Management District (2019) also acknowledges "neither the Sac Metro Air District nor any other air district currently have methodologies that would provide Lead Agencies and CEQA practitioners with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions".

As discussed above, BAAQMD's regional thresholds presented in Table 3.2-5 consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is a cumulative problem, BAAQMD considers projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature, such that they would not adversely affect air quality to the extent that the health-protective NAAQS or CAAQS would be exceeded. Regional emissions generated by a project could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which at certain concentrations, could lead to increased incidence of specific health consequences. Although these health effects are associated with ozone and particulate pollution, the effects are a result of cumulative and regional emissions. Thus, the Plan's incremental contribution cannot be traced to specific health outcomes on a regional scale and a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis. All feasible mitigation is being applied to reduce construction- and operational-generated emissions of ozone precursors and PM to the extent possible.

As discussed above under Impact AQ-2, construction emissions resulting from individual projects developed under the Specific Plan could exceed BAAQMD's regional ROG, NOx, and PM thresholds. **Mitigation Measures AQ-1 through AQ-6** would reduce regional emissions of ROG, NOx, and PM below BAAQMD's regional thresholds. Similarly, long-term operation of development under the Specific Plan would result in a net increase of approximately 66 pounds of ROG, 27 pounds of NOx, 552 pounds of PM10, and 90 pounds of PM2.5 per day. **Mitigation Measure TRA-1** and **AQ-7** would reduce regional emissions of ROG, NOx, and PM of individual projects developed under the Specific Plan below BAAQMD's regional thresholds, resulting in a less-than-significant impact. Based on recent experience of offsets being feasibly available for other large recent projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and thus that emissions can be reduced below threshold levels. Should offset programs be available for future development, health impacts related to criteria pollutant emissions under the Specific Plan would be less than significant with mitigation as discussed above. Because it cannot be concluded that offset programs per **Mitigation Measure AQ-6** and **AQ-7** would be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, health impacts related to regional criterial pollutants quality impacts are conservatively assumed to be ***significant and unavoidable***.

During grading and excavation activities associated with construction, localized fugitive dust would be generated. The amount of dust generated by a project is highly variable and dependent on the size of the disturbed area at any given time, the amount of activity, soil conditions, and meteorological conditions. BAAQMD's *CEQA Air Quality Guidelines* considers dust impacts to be less than significant if BAAQMD's

[13] For example, SCAQMD's analysis of their 2012 Air Quality Attainment Plan showed that modeled NOx and ROG reductions of 432 and 187 tons per day, respectively, only reduced ozone levels by 9 parts per billion. Analysis of SCAQMD's Rule 1315 showed that emissions of NOx and ROG of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absences (South Coast Air Quality Management District 2015).

construction BMPs are employed to reduce such emissions. Because BAAQMD's Basic Construction Mitigation Measures would be implemented, per **Mitigation Measure AQ-5**, construction-related fugitive dust emissions would be less than significant and would not expose receptors to substantial pollutant concentrations or risks.

Continuous engine exhaust may elevate localized CO concentrations, resulting in "hot spots." Receptors exposed to these CO hot spots may have a greater likelihood of developing adverse health effects. CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations throughout the day. The Specific Plan would meet the BAAQMD's CO hot spot screening criteria. The Specific Plan would not increase traffic volumes specified by BAAQMD and would be consistent with the applicable congestion management plan (Chan and McAdams pers. comm). Therefore, the Specific Plan would not contribute to a localized hot spot and would not expose receptors to substantial CO concentrations or risks.

Toxic Air Contaminants

The California Supreme Court has held that lead agencies are not required to analyze the impacts of the environment on a project's future users or residents, unless the project exacerbates existing environmental hazards (see *California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.41h 369*) or when the legislature has indicated by specific California Public Resources Code sections (21096, 21151.8, 21155.1, 21159.21, 21159.22, 21159.23, and 21159.24) that specifically defined environmental hazards associated with airport noise and safety, school projects, certain kinds of infill housing, and transit priority projects must be addressed. The Specific Plan would guide future development within the Project Site. Certain land use types proposed under the Plan may introduce emission sources (e.g., generators, delivery trucks) that would exacerbate existing environmental TAC hazards. The Specific Plan could introduce new sensitive receptors to the Project Site, including residences and daycares, that may be exposed to the exacerbated existing TAC hazard. Accordingly, this analysis considers both potential effects of Specific Plan development on existing receptors, as well as effects of the environment on Specific Plan receptors.

Demolition of existing structures results in particulates that may disperse asbestos containing materials (ACM) to adjacent sensitive receptor locations. ACM were commonly used as fireproofing and insulating agents prior to the 1970s. The U.S. Consumer Product Safety Commission banned use of most ACM in 1977 due to their link to mesothelioma. However, buildings constructed prior to 1977 that would be demolished by the development supported by the proposed Specific Plan may have used ACM and could expose receptors to asbestos, which may become airborne with other particulates during demolition.

All demolition activities would be subject to EPA's asbestos NESHAP if asbestos is present at the existing facilities. The asbestos NESHAP regulations protect the public by minimizing the release of asbestos fibers during activities involving the processing, handling, and disposal of ACM. The asbestos NESHAP regulations for demolition and renovation are outlined in BAAQMD Regulation 11, Rule 2. In addition to demolition and renovation measures, BAAQMD Regulation Rule 2 also includes measures to address ACM during haul truck transport. More specifically, it includes provisions such as treating ACM with water prior to transport and placing such materials in leak-tight containers for haul truck transport to disposal sites. Consequently, regulatory mechanisms exist that would ensure that impacts from ACM, if present during demolition activities within the Project Site, would be less than significant.

Development under the proposed Specific Plan may result in the installation or operation of new stationary sources of TACs (e.g., generators). While it is unknown what specific sources would be installed or where they would operate (other than the proposed Phase I Development generators, discussed below), all new stationary sources would be subject to the permit authority of the BAAQMD. The BAAQMD will not issue a permit for a new permitted source that results in an operational cancer risk in excess of 10.0 cases per million or a hazard index in excess of 1.0. Consequently, regulatory mechanisms exist that would ensure that cancer and health hazard impacts from stationary sources developed under the Project would be less than significant. However, BAAQMD's permit does not specifically address PM2.5 impacts. Therefore, while BAAQMD's permitting would achieve some reductions in PM2.5, it may not be sufficient to address PM2.5 impacts if the source results in significant PM2.5 concentrations.

Existing stationary sources within 1,000 feet of the Project Site include generators owned by Google LLC Google Inc., WalMart Stores, Inc., Avalon San Bruno. Double AA El Camino, Wall-Mart Stores, Inc., and San Bruno Shell (see Figure 3.2-1). New multifamily homes that could be developed in the housing and mixed-use overlays would be within 1,000 feet of these sources. However, as shown in Table 3.2-3, cancer and non-cancer health risks associated with these existing sources are less than BAAQMD cumulative risk thresholds. Accordingly, the Plan would not expose new receptors to significant health risks from exposure to TAC emissions from existing stationary sources.

As discussed above, segments of I-380, I-280, and SR 82 traverse or are adjacent to the Project Site. These segments of I-380, I-280, and SR 82 have annual ADT volumes of 149,000, 145,500, and 41,750, respectively. CARB (2005) recommends avoiding new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. The increase in traffic from the Specific Plan would generate additional vehicle-related TACs (including DPM). As I-380 and I-280 are currently classified as freeways with high volumes (per CARB's land use handbook), the future traffic levels from the Plan would exacerbate existing cumulative health risks. Consequently, both new and existing receptors near these roadways may be exposed to significant health risks from mobile source TACs.

Construction activities of future development projects under the Specific Plan would generate DPM and PM2.5 that could expose adjacent receptors to significant health risks. Without specific details on the locations of building footprints or their construction schedules, a quantitative evaluation of potential health risk impacts is not possible. Depending on the size and scale of an individual development project, along with its construction schedule and proximity to receptors, there may also be instances where DPM emissions could result in cancer or non-cancer health risks that exceed BAAQMD's thresholds, resulting in a potentially significant impact.

The potentially significant impacts resulting from exposure of receptors to PM2.5 exhaust from new stationary sources, TAC emissions from increased traffic volumes, and TACs generated during project construction activities would be reduced by Specific Plan policies. Mitigation Measure AQ-1 would require best management practices to minimize construction emissions. In addition, Policy 6-11 in the Specific Plan requires the installation of high-efficiency filters should new sensitive receptors be sited within 1,000 feet of major roadways and highways on the Project Site. Reductions achieved by this measure cannot currently be quantified since the locations of these receptors are unknown.

Even with these Specific Plan policies, additional emissions generated by new stationary sources, vehicle trips, and construction activity could expose receptors to cancer and non-cancer risks excess of BAAQMD significance thresholds during construction and operational activities. Figure 3.2-1 shows that the Project Site is within 1,000 feet from sensitive receptors. **Mitigation Measure AQ-8** is therefore required to provide a project-level evaluation of construction- and operational-related health risks from future projects. Mitigation Measure AQ-8 is not required for the Phase I Development, which is analyzed separately below. Because it cannot be concluded what the result of the project level evaluation will be without speculation, it is possible that mitigation for future project health risks may be inadequate to reduce impacts below BAAQMD threshold level, this impact would be ***significant and unavoidable***.

Mitigation Measures

Mitigation Measure AQ-8: Require Future Projects Located within 1,000 Feet of Sensitive Receptors to Perform a Health Risk Assessment.

All applicants proposing development of projects within 1,000 feet of existing sensitive receptors as defined by the BAAQMD (e.g., residential, daycares), other than the Phase I Development, shall prepare a site-specific construction and operational health risk assessment (HRA). If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors will be less than BAAQMD project-level thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks would exceed BAAQMD project-level thresholds, additional feasible on- and off-site mitigation shall be analyzed by the applicant to help reduce risks to the greatest extent practicable.

Phase I Development

The primary pollutants of concern to human health generated by construction and operation of the Phase I Development would be the same as evaluated above for the Project—criteria pollutants and TAC. Both pollutants and their potential impacts on receptors are analyzed below.

Criteria Pollutants

As discussed above, BAAQMD has developed region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is a cumulative problem, BAAQMD typically considers projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature and would not adversely affect air quality such that the NAAQS or CAAQS would be exceeded.

As shown in Table 3.2-8, construction of the Phase I Development would not generate regional criteria pollutants in excess of BAAQMD thresholds with implementation of **Mitigation Measures AQ-1**. In addition, **Mitigation Measure AQ-5** requires implementation of all feasible dust control measures, effectively reducing localized fugitive dust emissions during construction by 75% (BAAQMD 2017). As such, construction of the Phase I Development would not be expected to contribute a significant level of air pollution such that air quality within the SFBAAB would be degraded. Consequently, construction-generated criteria pollutant emissions would be less than significant and would not expose receptors to substantial pollutant concentrations or risk.

As shown in Table 3.2-9, operation of the Phase I Development would result in a net increase of approximately 17 pounds of ROG, 4 pounds of NOx, 125 pounds of PM10, and 21 pounds of PM2.5 per day, exceeding BAAQMD's PM10 threshold. However, pursuant to **Mitigation Measure TRA-2**, the project applicant would offset PM10 emissions to below 82 pounds per day. The Phase I Development would meet the BAAQMD's CO hot spot screening criteria and would not contribute to a localized hot spot. Consequently, operations-generated criteria pollutant emissions would ***be less than significant with mitigation*** and would not expose receptors to substantial pollutant concentrations or risk.

Toxic Air Contaminants

Demolition of the existing buildings on the Lakes parcel, which were built in 1976, may expose workers, and nearby receptors to asbestos if the material was used during construction of the original buildings. As the use of most ACM was not banned until 1977, there is potential for these buildings to contain asbestos. However, demolition activities would comply with BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing. Because applicants would be required to control asbestos emission according to BAAQMD regulations, impacts associated with asbestos emissions would be less than significant.

The Phase I Development does not propose any new sensitive receptors, but would install two diesel-powered generators on the Phase I Site. The nearest existing receptors are located to the north of the Phase I Site and I-380 in Commodore Park, approximately 350 feet away. As discussed above, all new stationary sources would be subject to the permit authority of the BAAQMD. The BAAQMD will not issue a permit for a new permitted source that results in an operational cancer risk in excess of 10.0 cases per million or a hazard index in excess of 1.0. Consequently, regulatory mechanisms exist that would ensure that cancer and health hazard impacts from stationary sources developed under the Phase I Development would be less than significant.

Because BAAQMD's permit does not specifically address PM2.5, concentrations from testing of the emergency generators were modeled. Table 3.2-10 presents the result of the modeling. Cancer and non-cancer health risks are presented for informational purposes. The receptors affected by the highest concentrations of PM2.5 exhaust are located north of the northern edge of the Phase I Site in Commodore Park approximately 350 feet north of the Phase I Site. As shown in Table 3.2-10, Phase I Development operations would not result in a significant increase in PM2.5 exhaust concentrations.[14]

Table 3.2-10. Project-level Cancer and Chronic Hazard Risks and PM.5 Concentrations During Operation

Receptor	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration (μg/m³)
Highest Offsite Receptor[a]	0.5	<1	<0.1
Significance Threshold	*10*	*1*	*0.3*
Exceed Threshold?	*No*	*No*	*No*

Note: μg/m³ = micrograms per cubic meter; PM2.5 = particulate matter no more than 2.5 microns in diameter

[a] This receptor is located approximately 350 feet from the northern boundary of the Phase I Site.

Construction activities would generate DPM and PM2.5 that could expose adjacent receptors to significant health risks. Table 3.2-1 presents the maximum construction-related health risks for receptors within 1,000 feet of Phase I construction activities. The receptors affected by the highest concentrations of DPM exhaust and PM2.5 exhaust are located north of the northern edge of the Phase I Site in Commodore Park.

[14] This analysis considered only existing sensitive receptors and assumed no new sensitive receptors (e.g., residential, daycares) would be located on the Project Site prior to the completion of Phase I Development construction.

Table 3.2-11. Project-level Cancer and Chronic Hazard Risks and PM.5 Concentrations During Construction

	Unmitigated			Mitigated [a]		
Receptor	**Cancer Risk[a] (cases per million)**	**Non-Cancer Hazard Index**	**Annual PM2.5 Concentration (μg/m³)**	**Cancer Risk (cases per million)**	**Non-Cancer Hazard Index**	**Annual PM2.5 Concentration (μg/m³)**
Highest Offsite[b] Receptor	9.8	< 1	< 0.1	1	< 1	< 0.1
Significance Threshold	*10*	*1*	*0.3*	*10*	*1*	*0.3*
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Note: μg/m³ = micrograms per cubic meter; PM2.5 = particulate matter no more than 2.5 microns in diameter

[a] The Project-level cancer and chronic hazard risks assumes Tier 4 equipment for all off-road equipment, as required per **Mitigation Measure AQ-1** (see Impact AQ-2).

[b] This receptor is located approximately 350 feet from the northern boundary of the Phase I Site.

As shown in Table 3.2-11, Phase I Development construction would not result in a significant increase in cancer risk at nearby sensitive receptors. Chronic hazard index and annual PM2.5 exhaust concentrations would also be below BAAQMD's significance thresholds. Implementation of **Mitigation Measure AQ-1**, which is required to address criteria pollutant emissions (see Impact AQ-2) would further reduce risks. Accordingly, project construction activities would not result in a significant increase in cancer or non-cancer risk at nearby sensitive receptors. Therefore, impacts for the Phase I Development would be ***less than significant***.

Impact AQ-4a. The Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (Project: Less Than Significant).

Impact AQ-4b. The Phase I Development would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (Phase I Development: Less Than Significant).

Project and Phase I Development

BAAQMD (2017) and CARB (2005) have identified the following types of land uses as being commonly associated with odors. Although this list is not exhaustive, it is intended to help lead agencies recognize the types of facilities where more analysis may be warranted.

- Sewage Treatment Plans
- Coffee Roasters
- Asphalt Plants
- Metal Smelters
- Landfills
- Recycling Facilities
- Waste Transfer Stations

- Petroleum Refineries
- Biomass Operations
- Autobody Shops
- Coating Operations
- Fiberglass Manufacturing
- Foundries
- Rendering Plants
- Livestock Operations

The Phase I Development does not propose any sensitive receptors, but multifamily homes could be developed under the Project within the housing and mixed-use overlay zones. As discussed earlier, the California Supreme Court has opined that impacts of the environment on projects are not subject to CEQA analysis, with limited exceptions. This general rule includes the impacts of existing odor-generating uses on future land uses. None of the above land uses, except for coffee roasters and autobody shops, are located within one mile of the Project Site. These facilities have not received any odor complaints within the last five years (Reed pers. comm). The Project does not propose any changes that would affect these odor-generating facilities. Therefore, odor complaints from these facilities are not anticipated upon implementation of the Project.

The Specific Plan would not permit the odor-generating land uses listed above. Potential odor emitters during construction activities include diesel exhaust, asphalt paving, and the use of architectural coatings and solvents. Construction-related operations near existing receptors would be temporary, and construction activities would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7. Given mandatory compliance with BAAQMD rules, no construction activities or materials are proposed that would create a significant level of objectionable odors. Accordingly, odor impacts would be ***less than significant***. No mitigation measures are required.

3.2.3 Cumulative Impacts

Impact C-AQ-1a: The Project, in combination with past, present, and reasonably foreseeable future projects, could result in a cumulatively considerable net increase in criteria pollutants after mitigation for which the Project region is a nonattainment area for an applicable federal or State ambient air quality standard (Project: Significant and Unavoidable).

Impact C-AQ-1b: The Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable net increase in criteria pollutants after mitigation for which the Project region is a nonattainment area for an applicable federal or State ambient air quality standard (Phase I Development: Less than Significant with Mitigation).

As discussed above, BAAQMD has identified project-level thresholds to evaluate criteria pollutant impacts (Table 3.2-5). In developing these thresholds, BAAQMD considers levels at which project emissions are cumulatively considerable. As noted in BAAQMD's guidelines,

> In developing thresholds of significance for air pollutants, 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, additional analysis to assess cumulative impacts is unnecessary.

Consequently, exceedances of project-level thresholds would be cumulatively considerable.

As discussed above, the Phase I Development would not exceed BAAQMD's criteria pollutant emission threshold during construction or operation with mitigation. Therefore, the Phase I Development would not have a cumulatively considerable impact. With regard to other development under the Specific Plan, BAAQMD's project-level thresholds do not lend themselves well to the analysis of specific plans. Rather, it is more appropriate to evaluate planning-level documents for their consistency with the most recently adopted attainment plan, which is the 2017 Clean Air Plan for the SFBAAB. As discussed under Impact AQ-1, the Project would support the goals of BAAQMD's 2017 Clean Air Plan, would include all applicable control measures, and would not conflict with Clean Air Plan implementation. The comprehensive suite of Specific Plan policies and improvements, such as promoting alternative modes of transportation such as walking and biking through infrastructure improvements (e.g., striping bicycle lanes, installing pedestrian refuges) (e.g., Policies 4-1, 4-3, and 3-1) and strengthening connections between the Project Site and regional transit systems (e.g., BART and Caltrain) (Policy 4-5) would ultimately reduce the severity of growth-oriented criteria pollutants, relative to conditions without the Specific Plan. However, individual development projects may still generate construction and operational emissions in excess of BAAQMD's project-level thresholds prior to mitigation. With implementation of **Mitigation Measures AQ-1 through AQ-7**, **TRA-1**, and **TRA-2**, individual project ROG, NO_X, PM10, and PM2.5 emissions associated with Project development would be less than cumulatively considerable, resulting in a less than significant impact. Based on recent experience of offsets being feasibly available for other large recent projects in the San Francisco Bay Area, it is reasonable to assume that offset programs per **Mitigation Measures AQ-6** and **AQ-7** will be available in the future. Should offset programs be available for future development, Project development would result in a less than significant cumulative impact. However, because it cannot be concluded that offset programs would be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, cumulative impacts for development under the Specific Plan other than the Phase I Development is conservatively assumed to be ***significant and unavoidable.***

Impact C-AQ-2a: The Project's TAC emissions, in combination with past, present, and reasonably foreseeable future project TAC emissions, could contribute to cumulative exposure health risks of sensitive receptors (Project: Significant and Unavoidable). The Project could also locate new receptors where they could be exposed to cumulative health risks due to cumulative TAC emissions (Project: Significant and Unavoidable).

Impact C-AQ-2b: The Phase I Development's TAC emissions, in combination with past, present, and reasonably foreseeable future project TAC emissions, would not contribute to cumulative exposure health risks of sensitive receptors (Phase I Development: Less than Significant). The Phase I Development would not locate new receptors where they would be exposed to cumulative health risks due to cumulative TAC emissions (Phase I Development: Less Than Significant).

According to BAAQMD's guidelines, combined risk levels should be determined from all nearby diesel particulate matter (DPM) sources within 1,000 feet of a project site, and these combined risk levels should be compared to BAAQMD's cumulative health risk thresholds.

Existing nearby DPM sources and the Project could contribute to a cumulative health risk for sensitive receptors near the Project Site. BAAQMD map files, Google Earth map files, and distance multipliers provided by the BAAQMD were used to estimate excess impact for existing stationary and roadway sources and shown in Table 3.2-3 and Figure 3.2-1. The methods used to estimate project emissions are described above under *Environmental Setting* and provided in Appendix 3.2-1.

As discussed above under Impact AQ-3, a quantitative evaluation of potential health risk impacts for the Specific Plan is not possible. **Mitigation Measures AQ-1 through AQ-8**, along with Policies 6-11 and 6-13, which would develop and maintain best practices for reducing emission associated with construction and operational activities and require that new development with sensitive receptors located adjacent to TAC sources be designed to minimize health risk, would reduce construction and operational health risks to existing and future receptors. However, there may be instances where Project-specific conditions preclude the reduction of health risk below adopted thresholds and expose receptors to cumulative health risks. For instance, this may include the installation or operation of new stationary sources of TACs (e.g., generators) on the Project Site that result in significant PM2.5 concentrations. BAAQMD permitting would reduce cancer risks and the hazard index but would not ensure reductions in PM2.5 emissions. In addition, future development projects under the Specific Plan could generate DPM and PM2.5 that could expose adjacent receptors to significant health risks (e.g., CAP thresholds exceeded, construction adjacent to sensitive receptors). Therefore, it is conservatively assumed that the cumulative health impacts from TAC emissions would be ***significant and unavoidable***, and that the Specific Plan's contribution would be cumulatively considerable.

The Phase I Development does not propose any new sensitive receptors, but would include new operational stationary sources (i.e., generators) and involve construction activities, which would generate DPM and PM2.5. There are also existing sources of DPM and PM2.5 within 1,000 feet of the Phase I Site (see Table 3.2-3). The combined risks from construction and operation of the Phase I Development and ambient sources could exceed BAAQMD's cumulative thresholds. For the Phase I Development, the associated cumulative health risks are summarized in Table 3.2-12.

As shown in Table 3.2-12, cumulative cancer risks, HI, and PM2.5 concentrations from construction and operation related DPM exhaust emissions would not exceed BAAQMD thresholds. Therefore, cumulative health impacts of the Phase I Development would be ***less than significant***.

Table 3.2-12. Maximum Cumulative Health Risks from Phase I Development

Source	Cancer Risk (per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration (μg/m^3)
Contribution from Existing Sources[a]			
Stationary Sources	2	-	<0.1
Roadways	16	-	0.5
Contribution from Phase I Construction			
Highest Offsite Receptor[b]	9.8 (1.1)	<1 (<1)	<0.1 (<0.1)
Contribution from Phase I Operation			
Highest Offsite Receptor	0.5	<1	<0.1
Cumulative Totals			
Existing + Construction[b]	27 (19)	<1 (<1)	0.5 (0.5)
Existing + Operation	18	<1	0.5
Existing + Construction + Operation[b,c]	28	<1 (<1)	0.5 (0.5)

Source	Cancer Risk (per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration (μg/m³)
BAAQMD Thresholds	*100*	*10*	*0.8*

Notes:
μg/m³ = micrograms per cubic meter
[a] Contribution from existing sources represent the health risks within 1,000 feet of the highest offsite receptor, located approximately 350 feet from the Phase I Site. See Figure 3.2-1 for existing stationary sources and roadways.
[b] Contributions from project construction reported without and (with) implementation of Mitigation Measure AQ-1.
[c] If an individual remains in the same location during and after construction, they would be exposed to project-generated DPM during construction and then any incremental changes in risk from project-generated DPM during operations. Analysts conservatively estimated the potential lifetime risks to long-term residents that may be present during both construction and operations.

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3.3 Energy Use

This section describes the environmental and regulatory setting for energy use in the City of San Bruno as it pertains to the Specific Plan and Phase I Development (Project). It also describes the energy impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ EIR, the Project comprises the Specific Plan and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described. Appendix 3.2-1 provides the calculations that were used to support the GHG analysis, and thus the energy analysis, as referenced further below.

No questions or concerns related to Energy Use were raised in the Notice of Preparation (NOP) or revised NOP comments.

3.3.1 Existing Conditions

3.3.1.1 Regulatory Setting

This section summarizes regional and local regulations and policies applicable to the Project and Phase I Development concerning energy use. There are no federal regulations regarding energy applicable to the Project.

Federal

As discussed in Sections 3.2, *Air Quality*, and 3.4, *Greenhouse Gases*, of this ~~Draft~~ EIR, the National Highway Traffic Safety Administration (NHTSA) sets the Corporate Average Fuel Economy Standards (CAFÉ) standards to improve the average fuel economy (reduce fuel consumption) and reduce GHG emissions generated by cars and light duty trucks. NHTSA and the United States Environmental Protection Agency (USEPA) have proposed to amend the current fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). California, 22 other states, the District of Columbia, and two cities filed suit against the proposed action on September 20, 2019 (California et al. v. United States Department of Transportation et al., 1:19-cv-02826, U.S. District Court for the District of Columbia). The lawsuit requests a "permanent injunction prohibiting Defendants from implementing or relying on the Preemption Regulation," but does not stay its implementation during legal deliberations. Part 1 of the SAFE Vehicles Rule went into effect on November 26, 2019.

State

Assembly Bill 1493, Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011)

Known as Pavley I, Assembly Bill (AB) 1493 provided the nation's first GHG standards for automobiles. AB 1493 required the California Air Resources Board (CARB) to adopt vehicle standards that will lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. Additional strengthening of the Pavley standards (referred to previously as Pavley II and now referred to as the

Advanced Clean Cars measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon (mpg) in 2025. The increase in fuel economy will help lower the demand for fossil fuels.

California Energy Efficiency Standards (CALGreen) for Residential and Nonresidential Buildings—Green Building Code (2011), Title 24 Updates

The California Green Building Standards code (Part 11, Title 24) was adopted as part of the California Building Standards Code (24 California Code of Regulations [CCR]). The California Green Building Standards Code (CALGreen) applies to the planning, design, operation, construction, use and occupancy of newly constructed buildings and requires the installation of energy and water efficient indoor infrastructure for all new projects beginning after January 1, 2011. CALGreen also requires newly constructed buildings to develop a waste management plan and divert at least 50% of the construction materials generated during project construction.

The current 2019 Building Energy Efficiency Standards were adopted in 2019 and took effect on January 1, 2020. The current standards are expected to achieve zero net energy for newly constructed residential buildings throughout California. Later standards are expected to require zero net energy for newly constructed commercial buildings.

Executive Order B-16-12 (2012)

EO B-16-12 orders state entities under the direction of the Governor, including CARB, the California Energy Commission (CEC), and the California Public Utilities Commission (CPUC), to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

Senate Bill 350 (2015), Chapter 547, Clean Energy and Pollution Reduction Act of 2015

Senate Bill (SB) 350 DeLeon, also known as the Clean Energy and Pollution Reduction Act of 2015, was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: (1) a Renewable Portfolio Standard (RPS)[1] of 50% and (2) to double statewide energy efficiency savings in natural gas and electricity end uses. In order to help meet these provisions, the Bill requires that large utilities develop and submit integrated resource plans to detail how the utility will reduce GHG emissions, increase use of clean energy resources, all while meeting the customers' needs.

Senate Bill 100—The 100 Percent Clean Energy Act of 2018 (2018)

SB 100 builds on SB 350, the Clean Energy and Pollution Reduction Act of 2015. SB 100 increases the 2030 RPS target set in SB 350 to 60% and requires an RPS of 100% by 2045.

Local

Peninsula Clean Energy 2018 Integrated Resource Plan

Peninsula Clean Energy (PCE) is a community choice energy (CCE) program that serves the entirety of San Mateo County, including the city of San Bruno. PCE adopted the 2018 Integrated Resource Plan on

[1] The RPS is one of California's key programs for promoting renewable energy use within the State. The program sets forth continuous procurement of renewable energy requirements for load-serving entities with the State of California (California Energy Commission 2019).

December 14, 2017 to provide guidance for serving the electricity needs of the residents and businesses in the County, all while fulfilling regulatory requirements over a 10-year period form 2018-2027. The plan contains the following strategic goals that are relevant to the Project:

- Design a diverse power portfolio that is greenhouse gas free
    - 100% GHG free by 2021
    - 100% RPS-eligible renewable energy by 2025[2]
    - Minimum of 20 MWs of new local power by 2025
- Stimulate development of new renewable energy projects and clean-tech innovation in San Mateo County and California through PCE's procurement activities
- Implement programs to further reduce greenhouse gas emissions by investing in programs such as local clean power production, electric vehicles, energy efficiency, and demand response, and partnering effectively with local businesses, schools, and nonprofit organizations

PCE meets its renewable energy requirements with a combination of RPS-eligible energy products. According to the 2018 Integrated Resource Plan, PCE procured enough renewable energy to meet a 50% voluntary target as of 2017. The proportion of PCE's resource mix that is sourced from bundled renewable energy products will significantly increase as PCE transitions toward 100% renewable energy content in 2025. Based on targeted renewable energy percentages, PCE intends to significantly outpace California's annual RPS procurement mandates throughout the 2018-2027 planning period.

San Mateo County Energy Strategy 2012

San Mateo County adopted the strategy in 2012 as a way to address (1) the increasing financial costs of energy and water, (2) the impact that creating additional energy related infrastructure will have on local communities, and (3) the increasing concern about climate change and its effects. The following goals are applicable to the Project:

- Energy: To support the state's greenhouse gas emission reduction targets, San Mateo County will reduce the amount of power it purchases from utilities to 25 percent below 2005 levels through conservation, efficiency and increase local production of clean energy.
- Economic Opportunities: Support the clean technology sector to strengthen the long-term economic health of San Mateo County.
- Leadership from the Top: San Mateo County will encourage environmental leadership from the top in the public sector, the business community and with its residents to achieve the goals of the Energy Strategy.

City of San Bruno General Plan

The City of San Bruno General Plan, adopted in 2009, includes goals and policies that relate to energy use and reduction (City of San Bruno 2009). The City of San Bruno General Plan has identified Public Facilities and Services policies related to energy use and reduction. These policies include, but are not limited to, measures such as implementing the City's design guidelines that promote energy efficiency, and requiring

[2] California RPS-eligible resources are defined by the California Energy Commission and designated as "Eligible Renewable Resources" (ERR). An ERR is a generating facility that meets all of the criteria set forth in Public Utilities Code Section 399.12, Public Resources Code Section 25741, and the California Energy Commission's "Renewables Portfolio Standard (RPS) Eligibility Guidebook."

all new development to comply with Title 24 standards. These measures contribute to energy reduction and use throughout the City of San Bruno, while promoting the use of renewable energy resources.

3.3.1.2 Environmental Setting

Energy resources in the state of California include natural gas, electricity, water, wind, oil, coal, solar, geothermal, and nuclear resources. Energy production and energy use both result in the depletion of nonrenewable resources, such as oil, natural gas, and coal, and result in the emissions of pollutants.

This section provides a discussion of the existing conditions related to energy statewide, regionally, and at the Project Site and the Phase I Site.

State Energy Resources and Use

California has a diverse portfolio of energy resources that produced 2,536 trillion British thermal units (BTUs)[3] in 2017 (U.S. Energy Information Administration 2018a). Excluding offshore areas, the state ranked fourth in the nation in crude oil production in 2017, producing the equivalent of 996.4 trillion BTUs. The state ranked first in total renewable energy generation, with 1,115.3 trillion BTUs. Other energy sources in the state include natural gas (236.8 trillion BTUs), nuclear (187.2 trillion BTUs), and biofuels (29.8 trillion BTUs) (U.S. EIA 2018b and 2018c).[4]

Additionally, due to the mild Mediterranean climate and strict energy-efficiency conservation requirements, California has lower energy consumption rates than most parts of the United States. According to the U.S. Energy Information Administration, California consumed approximately 7,881.3 trillion BTUs of energy in 2017 (U.S. EIA 2018d). California's per capita energy consumption of 200 million BTUs is one of the lowest in the Country and ranked 48th in the nation as of 2017 (U.S. EIA 2018e). California has among the lowest annual electrical consumption rates per person of any state, and its industrial uses consume 5.9 percent of the total energy consumed nationwide (U.S. EIA 2018f).

In 2017, natural gas accounted for the majority of energy consumption (2,188.7 trillion BTUs or 28%); followed by motor gasoline (1,720.8 trillion BTUs or 22%); renewable energy, including nuclear electric power, hydroelectric power, biomass, and other renewables (1,416.8 trillion BTUs or 18%); distillate and jet fuel (1,270.3 trillion BTUs 16%); and interstate electricity (659.4 trillion BTUs or 8%); with the remaining 8% coming from a variety of other sources (U.S. EIA 2018f). Of the natural gas consumed, commercial uses consumed approximately 11% of this total use, followed by residential uses (20%), and industrial uses (36 %), among many other uses (U.S. EIA 2019a).

The transportation sector consumed the highest quantity of energy (3,174.9 trillion BTUs or 40.3%), followed by the industrial (1,817.8 trillion BTUs or 23.1%), commercial (1,473.1 trillion BTUs or 18.7%), and residential (1,415.5 trillion BTUs or 18%) sectors (U.S. EIA 2018d).

Per capita energy consumption, in general, is declining because of improvements in energy efficiency and design. However, despite this reduction in per capita energy use, the state's total overall energy consumption (i.e., non-per capita energy consumption) is expected to increase over the next several decades as a result of growth in population, jobs, and vehicle travel.

[3] One BTU is the amount of energy required to heat 1 pound of water by 1°F at sea level. BTU is a standard unit of energy that is used in the United States and is on the English system of units (foot-pound-second system).

[4] No coal production occurs in California.

Regional Energy Resources and Use

PG&E provides natural gas services to the vast majority of Northern California, including the city of San Bruno, the Project Site, and the Phase I Site. PG&E's service extends from Eureka to Bakersfield (north to south) and from the Sierra Nevada to the Pacific Ocean (east to west). PG&E purchases gas and power from a variety of sources, including other utility companies. PG&E also obtains energy supplies from power plants and natural gas fields in northern California. PG&E operates a grid distribution system that channels all power produced at the various generation sources into one large energy pool for distribution throughout the service territory. In San Mateo County, a total of 209.7 million therms of natural gas were consumed in 2018, which is about two percent of the state's total consumption in 2017. In 2018, natural gas in San Mateo County was primarily consumed by the residential sector (55 percent), followed by the non- residential sector consuming 45 percent (California Energy Commission N.d.).

Peninsula Clean Energy (PCE) is San Mateo County's official electricity provider, and therefore provides electricity to the city of San Bruno, including the Project Site. PCE's power comes from a mix of various sources, including solar, wind, geothermal, biomass and biowaste, and hydroelectric generation resources. PCE delivers power to its customers via existing PG&E utility infrastructure.[5] PCE allows customers to choose between two different electricity product operations: ECOplus which contains 50% renewable resources as electricity sources, and ECO100, which is 100% renewable resources as electricity sources (PCE 2019). In 2017, the most recent year for which data is available, PCE provided approximately 53% of San Bruno's electricity from eligible renewable energy resources for the ECOplus option, and 100% of electricity from eligible renewable energy resources for the ECO100 option (PCE 2018). Electricity usage for different land uses varies substantially by the type of uses in a building, the type of construction materials used, and the efficiency of the electricity-consuming devices used. However, generally energy consumption in the city of San Bruno has decreased over recent years despite a growing population, as shown in the 2010-2015 data in Table 3.3-2 (San Mateo County, No Date). Table 3.3-1 outlines PCE's power mix in 2017 compared to the power mix for the State, and Table 3.3-2 outlines the city of San Bruno's electricity and natural gas consumption.

Table 3.3-1. PCE and the State of California Power Mix in 2017

Energy Resources	PCE Option: ECOplus	PCE Option: ECO100	2017 CA Power Mix
Eligible Renewable	53%	100%	29%
Biomass & biowaste	7%	0%	2%
Geothermal	6%	0%	4%
Eligible hydroelectric	9%	0%	3%
Solar	7%	50%	10%
Wind	24%	50%	10%
Coal	0%	0%	4%
Large Hydroelectric	33%	0%	15%
Natural Gas	0%	0%	34%
Nuclear	0%	0%	9%
Other	0%	0%	<1%
Unspecified sources of power	15%	0%	9%
TOTAL	**100%**	**100%**	**100%**

Source: PCE 2018.
kwh= kilowatt hour

[5] PCE charges each of its customers an electric delivery charge for maintenance of PG&E's wires, infrastructure, and delivery of electricity to customers.

Table 3.3-2. Electricity and Natural Gas Consumption in the City of San Bruno from 2010-2015

Energy Resources	Electricity (million kwh)	Natural Gas (million therms)
2010		
Residential	81.5	6.5
Commercial and Industrial	108.8	2.6
Total	**190.3**	**9.1**
2011		
Residential	80.9	6.5
Commercial and Industrial	100.9	2.7
Total	**181.9**	**9.2**
2012		
Residential	80.1	6.3
Commercial and Industrial	104.9	2.8
Total	**185.0**	**9.1**
2013		
Residential	78.9	6.2
Commercial and Industrial	101.5	2.7
Total	**180.4**	**8.9**
2014		
Residential	75.7	5.0
Commercial and Industrial	99.7	2.4
Total	**175.4**	**7.4**
2015		
Residential	74.8	5.0
Commercial and Industrial	99.8	2.4
Total	**174.6**	**7.4**

Source: San Mateo County, No Date.
kwh= kilowatt hour

Project Site and Phase I Site Energy Resources and Use

As described in more detail in Chapter 2, *Project Description*, the Project Site is currently comprised of hotel, office, retail, and commercial uses, as well as surface parking and other vacant areas. The Phase I Site is located within the northwest portion of the Project Site and is currently developed with two office buildings, surface parking, and associated landscaped elements dispersed throughout the site. Table 3.3-3 below provides the existing energy usage at the Project Site and Phase I Site.

As stated previously, PG&E and PCE provide natural gas and electricity, respectively, to the city of San Bruno, and thus the Project Site and Phase I Site via right-of-way electric and natural gas lines.[6] A substation supporting a 60-kilovolt (kV) electric transmission line is located approximately 0.3 miles south east of the Project Site, along Pepper Drive. Additionally, a 230-kV electric transmission line is located along Huntington Avenue, approximately 0.3 miles east of the Project Site. Distribution lines are conveyed from these electric transmission lines to electricity users within the Project Site and Phase I Site (CEC 2017b). There is also a 19– to 26-inch natural gas conveyance pipeline (Pipeline ID NGL1123) located approximately 0.1 mile west of the Project Site, and another 27- to 32-inch diameter natural gas

[6] As mentioned previously, PCE utilizes existing PG&E infrastructure to deliver power to its customers.

pipeline located approximately 0.3 mile east of the Project Site (Pipeline ID NGL1124)(CEC 2017a). Also, there are gas transmission pipelines that run adjacent to Junipero Serra Freeway (I-280) and are located approximately 0.1-mile west of the Project Site (U.S. Department of Transportation, No Date).

Table 3.3-3. Existing Operational Energy Resource Consumption at the Phase I Site and Project Site

Energy Resources	Phase I Site	Project Site
Electricity (kwh/year)	5,458,619	27,527,971
Natural Gas (therm/year)	62,388	324,418
Gasoline(gallons/year)[a]	145,098	1,295,519
Diesel (gallons/year)[a]	13,889	124,011

Source: CalEEMod. See Appendix 3.2-1.
kwh= kilowatt hour
[a] Assumes existing operational gasoline and diesel consumption attributable to Phase I Site is 11.2% of Project Site's overall gasoline and diesel consumption based on the Phase I Site's share of the overall square footage of existing buildings located within the Project Site.

3.3.2 Environmental Impacts

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

3.3.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below:

- Wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operations.
- Conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.

3.3.2.2 Methodology and Approach

Energy impacts associated with construction and operation of the Project were assessed and quantified, where applicable, using standard and accepted software tools and techniques. A summary of the methodology for calculating the Project's energy use is provided in the paragraphs below.

Appendix F of the CEQA Guidelines provides guidance on determining whether a project would result in wasteful, inefficient, or unnecessary consumption of energy resources. As stated in Appendix F, the goal of conserving energy implies the wise and efficient use of energy, and the means of achieving this goal includes:

- Decreasing overall per capita energy consumption,
- Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
- Increasing reliance on renewable energy sources.

Based on Appendix F, environmental considerations in the assessment of energy consumption impacts may include the following:

- The project's energy requirements and its energy efficiencies by amount and fuel type for each stage of the project, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak- and base-period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Project

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multi-family residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed.

This section analyzes the build out scenario which represents the "worst-case" scenario for energy consumption. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts. The types and levels of construction-related energy consumption are anticipated to be similar for both scenarios, but as described below, they cannot be precisely quantified. On the other hand, the differences in the types and amounts of land uses would influence long-term energy consumption. As discussed in Section 3.10, *Transportation*, the Maximum Office Scenario would generate more vehicle trips, and thus would result in more energy use associated with fuel consumption. Modeling conducted for the air quality and GHG analyses indicates that the Maximum Office Scenario would also result in greater electricity and natural gas consumption associated with building use (refer to Appendix 3.2-1 for modeling outputs). Accordingly, this analysis evaluates operational energy consumption from the Maximum Office Scenario, which is the worst-case build out scenario with the greatest potential to result in significant impacts.

As discussed in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan also includes an equivalency exchange program that would allow for up to 115,422 square feet of hotel use or 34,265 square feet of retail use to be developed in lieu of up to 180,347 square feet of the new office development included in the EIR buildout projections (Tables 2-3 and 2-4). The energy consumption estimates presented in this section represent the highest levels that could occur between these three potential land uses. For further discussion of the equivalency exchange program, refer to Appendix 4 of this ~~Draft~~ EIR.

Construction

Construction activities under the Specific Plan would result in energy consumption from construction equipment, worker and haul truck vehicles, and electricity use. At this time, the construction schedule and activities that would be utilized for each individual development project within the Project Site from implementation of the proposed Specific Plan are not known (other than the Phase I Development, which is discussed below). With anticipated buildout in 2040, development of the various land uses associated with the proposed Specific Plan would occur over an extended period of time and would depend on local economic conditions, market demand, and other financing considerations. Consequently, without these specific details, it is not possible to develop a quantified estimate of construction-related energy use for Specific Plan buildout.[7] As such, the evaluation of construction-related energy impacts resulting from implementation of the Specific Plan is conducted qualitatively in this EIR.

Operation

Energy consumption associated with the Project Site includes the combustion of natural gas, electricity use, and fuel use from mobile sources (i.e., vehicles). Natural gas and electricity use was quantified using CalEEMod, version 2016.3.2, for existing (2017) and buildout (2040) conditions with and without the Specific Plan and reflects implementation of state measures to reduce energy use and resulting GHG emissions (e.g., SB 100, compliance with Title 24). Because operational details for each individual development project proposed under the Specific Plan are currently unknown, CalEEMod defaults were assumed based on the anticipated land uses. Fuel use was quantified using Caltrans' CT-EMFAC2017 emissions model, version 1.0.2.27401. VMT estimates apportioned into 5-mph speed intervals for existing and buildout year with and without the Specific Plan were provided by the traffic engineers (Chan pers. Comm, McAdams pers. Comm)[8] and multiplied by the per-mile gasoline and diesel factors provided by CT-EMFAC2017. The analysis accounts for trip reductions achieved by quantifiable Specific Plan policies, including proximity to transit and mixed-use design. Please refer to Appendix 3.2-1 for the CalEEMod output files and fuel use calculations.

For ease of comparison, electricity consumption was converted to BTUs assuming an energy intensity of 3,416 BTU per kilowatt hour (kWh) (Argonne 2015). Natural gas consumption is presented in CalEEMod in thousand BTU (kBTU) format. In addition, gallons of diesel and gasoline were converted to BTUs assuming an energy intensity of 124,000 BTU per gallon of gasoline, and 139,000 BTU per gallon of diesel (Environment and Ecology 2019).

7 Project-level information includes details such as the size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition and grading quantities.

8 CARB has not released GHG adjustment factors to account for the SAFE Vehicle Rule Part 1. As such, this analysis does not include any adjustments, which could presumably be higher (see Section 3.4, *Greenhouse Gases*). Since GHG emissions were used to estimate gasoline consumption estimated in this section, gasoline consumption may be higher than what is presented in this section. However, it is speculative to assume what effect, if any, the SAFE Vehicle Rule Part 1 would have on future emissions and the calibration of future versions of air quality modeling tools. This analysis relies on the latest version of the model available at the time of the analysis.

Phase I Development

Construction

Construction of the Phase I Development would require energy-usage activities such as electricity for mobile offices and fuel for off-road equipment, haul trucks, vendor trips, and worker trips. Total electricity use during Phase I Site construction was provided by the project sponsor (Weber pers. comm). Fuel use was quantified using the construction emissions profile generated by CalEEMod with construction data (e.g., construction schedule, equipment operating details, trip numbers and lengths, construction quantities) provided by the project sponsor (Weber pers. comm). Assuming all off-road, hauling, and vendor activities are carried out by diesel equipment and vehicles, and all workers use gasoline vehicles to travel to and from the Phase I Site, the annual metric tons of carbon dioxide equivalent (CO2e) emissions associated with each corresponding construction activity (e.g., off-road equipment, worker trips) were converted to gallons of diesel or gasoline using factors from the Environmental Protection Agency (2018) and summed accordingly. For ease of comparison across all energy consumption amounts, gallons of diesel and gasoline were converted to BTUs assuming an energy intensity of 124,000 BTU per gallon of gasoline, and 139,000 BTU per gallon of diesel (Environment and Ecology 2019). Refer to Appendix 3.2-1 for the CalEEMod output files and fuel use calculations.

Operation

Energy consumption from operational activities associated with buildout of the Phase I Development was evaluated using the same methods and models (e.g., CalEEMod, CT-EMFAC2017) as described above for the proposed Specific Plan. Quantifiable features that are part of the project design, including the exceedance of Title 24 energy standards and water reduction goals, were incorporated into the CalEEMod model. Traffic data for the Phase I Development was provided by the traffic engineers and used to estimate fuel use. For ease of comparison across all energy consumption amounts, gallons of diesel and gasoline were converted to BTUs assuming an energy intensity of 124,000 BTU per gallon of gasoline, and 139,000 BTU per gallon of diesel (Environment and Ecology 2019). Refer to Appendix 3.2-1 for modeling assumptions, CalEEMod output files, and fuel use calculations.

3.3.2.3 Impacts and Mitigation Measures

Impact EN-1a. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation (Project: Less than Significant with Mitigation during construction and Less than Significant during operation)

Impact EN-1b. The Phase I Development would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation (Phase I Development: Less than Significant with Mitigation during construction and Less than Significant during operation)

Project

Construction

Construction associated with new land use developments under the Specific Plan would result in the temporary usage and consumption of energy resources within the Project Site. Construction energy use would include electricity used to power electric construction equipment, mobile offices, or water delivered to construction sites; gasoline and diesel fuel used for transportation of workers and haul trucks to and from construction sites; and fuel used for operation of off-road equipment. Construction-related energy usage and consumption would occur intermittently throughout the course of Specific Plan buildout, and would vary substantially depending on the level of activity, length of construction period, specific construction operations, types of equipment, and number of personnel. Since the timing and intensity of future development projects are not yet known, the precise effects of construction activities associated with buildout of the Specific Plan cannot be accurately quantified at this time.

The types of land uses envisioned under the Specific Plan would involve construction activities typical of development within a planning area, and no land uses are expected to require an extraordinary amount of energy consumption during construction, as may occur with large, industrial facilities, like new power plants or dams, because no such land uses are proposed or permitted within the Specific Plan Area. The Specific Plan includes policies designed to reduce air quality, transportation, and greenhouse gas impacts during construction, such as developing and maintaining best management practices for minimizing construction-related emissions (Policies 6-9, 6-10, and 6-14) and requiring individual projects to submit Construction Management Plans to reduce construction-related traffic congestion (Policy 4-12). These policies would also achieve reductions in construction-related energy use.

Furthermore, as discussed in Section 3.4, *Greenhouse Gases*, future projects under the Specific Plan would be required to comply with **Mitigation Measure GHG-1**, which requires construction contractors to implement BAAQMD's recommended best management practices including ensuring that alternative fueled (e.g. biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet, using local building materials of at least 10 percent (sourced from within 100 miles of the Planning Area); and recycling and reusing at least 50 percent of construction waste and demolition materials. Additionally, as discussed in Section 3.2, *Air Quality*, **Mitigation Measure AQ-3** would require all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities to use renewable diesel. Mitigation Measure AQ-3 is not required for the Phase I Development, which is analyzed separately below. These measures would reduce the amount of fossil fuel consumed during construction activities and the energy intensiveness associated with new building materials and disposed construction and demolition waste. With incorporation of these mitigation measures, construction under the Specific Plan would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact is ***less than significant with mitigation***.

Operation

Once operational, land uses within the Specific Plan would generate vehicle trips, which would consume gasoline and diesel. Developments would also result in the consumption of electricity and natural gas for operational uses such as power, emergency generators, heating, cooling, and landscaping activities. As discussed above under Methodology and Approach, the Specific Plan's energy consumption is evaluated for the Maximum Office Scenario (worst-case scenario) under existing (2017) and buildout year (2040) conditions with and without the Specific Plan. The analysis accounts for benefits achieved by the sustainability policies in the Specific Plan that are required, including the use of green consumer products. The analysis also accounts for implementation of quantifiable measures that will reduce energy usage (e.g., SB 100). The Specific Plan could achieve additional reductions in energy consumption and usage through voluntary sustainability features that encourage features such as alternative transportation, LEED Silver or equivalent certification, rooftop solar equipment, and green roofs (Policies 3-25, 6-15, and 6-17). However, these strategies were not quantified because the exact number of installed systems and affected structures are currently unknown and are not mandated by the Specific Plan. Thus, this analysis may overstate the Project's actual operational energy impacts. Table 3.3-4 below presents the results of the operational energy analysis (expressed in terms of million BTU or MBTU). The Specific Plan's net energy consumption is determined by taking the difference in operational energy consumption between "2040 with Specific Plan" conditions and existing (2017) conditions of the Project Site.

As shown, buildout of the Specific Plan would increase operational energy consumption on the Project Site by 415,871 million BTUs, or 73 percent when compared to existing conditions. However, energy use per square foot would remain at 0.17 million BTUs/sf, consistent with existing conditions despite the increase in building area that would occur. This is attributable to the energy efficiency of the future buildings and vehicles, which would be subject to increasingly robust regulations over time to meet the State's renewable energy mandates. Based on the above, buildout of the Specific Plan would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact is ***less than significant***. While mitigation is not required, it is noted that mitigation measures required to reduce GHG and transportation impacts would further reduce energy use associated with the Specific Plan (see **Mitigation Measure GHG-2** and **Mitigation Measure TRA-1**). Specifically, implementation of **Mitigation Measure TRA-1** would reduce both annual gasoline and diesel usage by 13 percent by requiring a reduced drive alone percentage, an annual monitoring study, and ongoing monitoring and evaluation. Mitigation Measure TRA-1 is not required for the Phase I Development, which is analyzed separately below.

Table 3.3-4. Estimated Operational Energy Consumption for the Specific Plan (Maximum Office Scenario)

Analysis Condition/Source	Million BTU/Year
Existing (2017)	
Electricity	94,036
Natural Gas	32,442
Mobile - gasoline	160,644
Mobile - diesel	17,238
Total Existing[a]	**304,360**
2040 Without Specific Plan	
Electricity	94,050
Natural Gas	32,436
Mobile - gasoline	98,156
Mobile - diesel	17,800
Total 2040 Without Specific Plan[a]	**242,442**
2040 With Specific Plan	
Electricity	224,394
Natural Gas	78,883
Mobile - gasoline	351,801
Mobile - diesel	65,153
Total 2040 With Specific Plan[a]	**720,231**
Net Change with Proposed Specific Plan	
2040 With Proposed Specific Plan vs. Existing (2017)	415,871 (+73%)
Energy per Square Foot (MMBTU/sf)	
Existing (2017)	0.17
2040 Without Specific Plan	0.14
2040 With Specific Plan	0.17

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs.

Notes: As noted above, the energy analysis reflects implementation of quantifiable state measures that will reduce energy consumption (e.g., SB 100) and Specific Plan policies related to use of green consumer products and installation of low-flow fixtures. In addition, for the 2040 With Specific Plan condition, the energy consumption presented are maximums anticipated under the Maximum Office Scenario. If the allowable land use exchange to hotel or retail under the equivalency program would result in higher energy consumption than the base office use, those emissions are shown here. Therefore, the total energy consumption provided represents the worst-case scenario.

[a] Values may not add due to rounding.

Phase I Development

Construction

The types of construction-related energy consumption by the Phase I Development would be similar to those described above for the Specific Plan. Construction activities for Phase I Development include the demolition of three structures, construction of two new office buildings, utility installations, realignment of Grundy Lane, and construction of a transit hub. Construction energy use would include electricity used to power electric construction equipment, mobile offices, or water delivered to the construction site; gasoline and diesel fuel used for transportation of workers and haul trucks to and from construction sites; and fuel used for operation of off-road equipment. Estimated construction-related energy consumption is provided in Table 3.3-5. The table shows that Phase I Development construction would consume approximately 1,850,359 million BTUs over the three-year construction period.

Table 3.3-5. Estimated Construction Energy Consumption from the Phase I Development (million BTUs)[a]

Source	Total mBTU
Electricity	798,441
Fuel - Gasoline	986,992
Fuel - Diesel	64,926
Total	**1,850,359**

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs and construction energy calculations.

Notes:

[a] Emissions represent the sum of emissions from the CalEEMod construction output and energy consumption (approximately 78,000 kilowatt-hours per year) during construction.

For the reasons stated above in the Specific Plan analysis, construction of the Phase I Development would not result in the wasteful, inefficient, or unnecessary consumption of energy resources with implementation of **Mitigation Measure GHG-1.** This measure would reduce the amount of fossil fuel consumed during construction activities and the energy intensiveness associated with new building materials and disposed construction and demolition waste by requiring construction contractors to implement BAAQMD's recommended best management practices, specifically those associated with alternative fuel use and recycling. This impact is ***less than significant with mitigation***.

Operation

The types of operational energy consumption for the Phase I Development would be similar to those described above for the Specific Plan. Operational energy consumption was evaluated under existing year

(2017) and buildout year (2022) conditions. The analysis includes implementation of quantifiable measures that will reduce energy usage (e.g., SB 100), as well as benefits achieved through quantifiable sustainability measures, including use of green consumer products, and exceedance of Title 24 standards by 16 percent, which are incorporated into the Phase I Development design. Similar to the Specific Plan, the Phase I Development could achieve additional reductions in energy consumption and usage through voluntary sustainability features, however, these strategies are not currently quantifiable and therefore, not factored into the Phase I Development operational energy analysis. Table 3.3-6 below presents the results of the operational energy analysis (expressed in terms of million BTU or MBTU)The Phase I Development's net energy consumption is determined by taking the difference in operational energy consumption between "2022 with Phase I Development" conditions and existing (2017) conditions of the Phase I Site.

Table 3.3-6. Estimated Operational Energy Consumption for the Phase I Development

Analysis Condition/Source	Million BTU/Year
Existing (2017)[b]	
Electricity	18,647
Natural Gas	6,239
Mobile - gasoline[a]	17,992
Mobile - diesel[a]	1,931
Total Existing[b]	**44,808**
2022[c] Without Phase I Development	
Electricity	18,647
Natural Gas	6,239
Mobile - gasoline	15,444
Mobile - diesel	2,108
Total 2022 Without Phase I Development[b]	**42,437**
2022[c] With Phase I Development	
Electricity	32,671
Natural Gas	10,073
Mobile - gasoline	24,576
Mobile - diesel	3,345
Total 2022 With Phase I Development[b]	**70,664**
Net Change with Proposed Phase I Development	
2022[c] With Phase I Development vs. Existing (2017)[c]	25,856 (+58%)
2022 With Phase I Development vs. 2022 Without Phase I Development[c]	28,227 (+67%)
Energy per Square Foot (MMBTU/SF)	
Existing (2017)	0.23
2022 Without Phase I Development	0.22
2022 With Phase I Development	0.11

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs and mobile emissions calculations.

Notes: As noted above, the emissions analysis does not include benefits achieved by the voluntary sustainability features but does reflect implementation of quantifiable state measures that will reduce energy consumption (e.g., SB 100).

[a] Phase I Site is approximately 11.2% of the existing square footage of the entire Project site. Therefore, existing operational gasoline and diesel consumption amounts for the Phase I Site were estimated by multiplying the Project Site's operational gasoline and diesel consumption amounts with and without the Phase I Development by this ratio.

[b] Values may not add due to rounding.
[c] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emission factors decline as a function of time due to increasingly stringent air emission standards. Similarly, energy efficiency standards will become increasingly stringent over time. Therefore, this analysis is conservative, as actual energy consumption would be expected to be lower in 2025.

As shown in Table 3.3-6, buildout of the Phase I Development would increase operational energy consumption on the Phase I Site by 28,856 million BTUs, or 58 percent when compared to existing conditions. However, energy use per square foot would actually decrease to 0.11 million BTUs/sf, when compared to the existing condition of 0.23 million BTUs/sf. This decrease is attributable to the energy efficiency measures to be incorporated into the Phase I Development, and further described below.

The Phase I Development would install Energy Star appliances, meet United States Green Building Council's LEED v4 Silver or equivalent certification standards, and exceed the 2016 Title 24 standards by approximately 16 percent. Additionally, the design of the Phase I Development would incorporate environmentally sustainable design features including access to natural light through windows and skylights, photovoltaic features, and green roofs and walls. The lighting and the heating, ventilation, and air conditioning (HVAC) systems, along with other mechanical systems, would be designed around maximizing energy efficiency and natural lighting. Furthermore, as discussed in Section 2.6.2.9, *Transportation Demand Management*, YouTube implements a robust TDM program, and the Phase I Development would be subject to YouTube's existing TDM program. This program includes, but is not limited to, a TDM coordinator; priority parking for carpools, vanpools, and clean-fuel vehicles; bicycle parking, sharing, and facilities; a guaranteed ride home program; rideshare matching services; pre-tax commuter benefits; employer commuter shuttle services; flexible work schedule program; and commuter incentives and rewards, which results in the reduction of vehicle miles travel~~l~~ed, and consequently the amount of energy consumed through gasoline and diesel.

Based on the above analysis, operation of the Phase I Development would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact is ***less than significant***. While mitigation is not required, it is noted **Mitigation Measure TRA-2** would reduce the Phase I Development's annual gasoline and diesel usage by 19 percent by requiring a reduced drive alone percentage, an annual monitoring study, and ongoing monitoring and evaluation. Refer to Section 3.10, *Transportation*, of this ~~Draft~~ EIR.

Mitigation Measures

Impacts from the Specific Plan would be reduced to a less-than-significant level with implementation of the following mitigation measures. Impacts from the Phase I Development would be reduced to a less-than-significant level with implementation of the first mitigation measure.

Mitigation Measure GHG-1: Require Implementation of BAAQMD-recommended Construction BMPs. See Section 3.4, *Greenhouse Gasses*.

Mitigation Measure AQ-3: Require Construction Fleet to Use Renewable Diesel. See Section 3.2, *Air Quality*. This mitigation measure is not required for the Phase I Development.

Impact EN-2a. The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency (Project: Less than Significant)

Impact EN-2b. The Phase I Development would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency (Phase I Development: Less than Significant)

Project

State and local renewable energy and energy efficiency plans that are applicable to the Specific Plan are discussed above under *Regulatory Setting.* State plans include AB 1493 Pavley Rules, California Title 24 energy efficiency standards, EO B-16-12, SB 350, and SB 100. Each of these contain required standards related to energy efficiency and renewable energy development. Local plans that address energy efficiency and are designed to achieve the state's RPS mandates include PCE's 2018 Integrated Resource Plan and the San Mateo Energy Strategy 2012. The City's General Plan also includes goals and policies that relate to energy use and reduction.

As discussed above under Impact EN-1, the Specific Plan would encourage implementation of sustainability and transportation features, and energy use by square foot would not increase compared to existing conditions despite the increase in building area that would occur. Development under the Specific Plan would be required to comply with State and local renewable energy and energy efficiency plans, and would benefit from the resulting increases in energy efficiency and renewable energy development. Vehicles and energy use from increased VMT and average daily trips (ADT) within the area is expected to become increasingly more efficient as a result of the regulations included in Pavley and EO B-16-12, which address average fuel economy and commercialization of zero-emission vehicles, respectively. Building energy efficiency is also expected to increase as a result of compliance with Title 24 Building Codes, which are expected to move towards zero net energy for newly constructed buildings, and the shift towards 100 percent renewable energy under SB 350 and SB 100 regulations. With implementation of the Specific Plan, PCE would continue to pursue the procurement of renewable energy sources to meet its RPS portfolio goals and comply with state regulations. As noted in the 2018 Integrated Resources Plan, based on targeted renewable energy percentages, PCE intends to significantly outpace California's annual RPS procurement mandates throughout the 2018-2027 planning period. Therefore, buildout of the Specific Plan, would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and the impact would be ***less than significant***. No mitigation measures are required.

Phase I Development

The Phase I Development would be consistent with the Specific Plan. Additionally, the Phase I Development would install Energy Star appliances, meet United States Green Building Council's LEED v4 Silver or equivalent certification standards, and exceed the 2016 Title 24 standards by approximately 16 percent. The design of the Phase I Development would incorporate environmental and performative design criteria. Like all development within the Specific Plan, the Phase I Development would be required to comply with State and local renewable energy and energy efficiency plans. For the reasons stated above for the Project analysis, the Phase I Development would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and the impact would be ***less than significant***. No mitigation measures are required.

3.3.3 Cumulative Impacts

Impact C-EN-1a. The Project, in combination with past, present, and reasonably foreseeable projects, would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation (Project: Less than Significant)

Impact C-EN-1b. The Phase I Development, in combination with past, present, and reasonably foreseeable projects, would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation (Phase I Development: Less than Significant)

The geographic scope of cumulative impact analysis for energy usage includes the PCE and PG&E service areas for electricity and natural gas, respectively, which comprises San Mateo County and the larger Northern California area.

Project

Continued growth throughout PCE's and PG&E's service areas could contribute to ongoing increases in demand for electricity and natural gas. These anticipated increases would be countered, in part, by ongoing increases in state and local requirements related to renewable energy and increased energy efficiency. The extent to which cumulative development through 2040, the Project's buildout year, could result in wasteful, inefficient, or unnecessary consumption of energy resources would depend on the specific characteristics of new development, and are not known at this time. As previously discussed, SB 100 obligates utilities to supply 100 percent carbon-free electricity by 2045, and PCE has established a goal of achieving 100 percent RPS-eligible renewable energy by 2025. Similarly, Pavley standards are expected to increase average fuel economy to roughly 54.5 miles per gallon (mpg) by 2025, increasing fuel economy and lowering the demand for fossil fuels. Thus, it is anticipated that future energy users will become more efficient and less wasteful over time.

As stated above, buildout of the Specific Plan would increase operational energy consumption on the Project Site by 415,871 million BTUs, or 73 percent when compared to existing conditions. However, energy use per square foot would remain at 0.17 million BTUs/sf, consistent with existing conditions despite the increase in building area that would occur. This is attributable to the energy efficiency of the future buildings and vehicles, which would be subject to increasingly robust regulations over time to meet the State's renewable energy mandates. The Specific Plan encourages building design features that reduce energy consumption and increase renewable energy generation. Because buildout under the Specific Plan would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and because cumulative development would be subject to increasingly robust standards regarding energy efficiency, the cumulative impact would be ***less than significant***.

Phase I Development

The Phase I Development would be completed in ~~2022~~ 2025. According to PCE's 2018 Integrated Resource Plan, which has a planning horizon of 2027, PCE is currently meeting a renewable energy target of 50 percent, and the proportion of PCE's resource mix that is sourced from bundled renewable energy products will significantly increase as PCE transitions toward 100% renewable energy content in 2025. As discussed in the Phase I Development impact analysis, the Phase I Development would install Energy Star appliances, meet United States Green Building Council's LEED v4 Silver or equivalent certification standards, and exceed the 2016 Title 24 standards by approximately 16 percent. Additionally, the design of the Phase I Development would incorporate environmental and performative design criteria. Thus, for the reasons stated above for the Project analysis, the Phase I Development would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and the cumulative impact would be ***less than significant***.

Impact C-EN-2. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable projects, would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency (Project: Less than Significant; Phase I Development: Less than Significant)

Cumulative development through ~~2022~~ 2025 (the Phase I Development buildout year) and 2040 (the Specific Plan buildout year) would be required to comply with all adopted state and local renewable energy and energy efficiency regulations and plans. Therefore, cumulative impacts would be ***less than significant*** for both the Project and the Phase I Development.

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3.4 Greenhouse Gases

This section describes the environmental and regulatory setting for greenhouse gas (GHG) emissions in the City of San Bruno as it pertains to the Bayhill Specific Plan and Phase I Development (Project). It also describes the GHG impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ EIR, the Project comprises the Specific Plan and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level, and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described. Appendix 3.2-1 presents supporting GHG calculations for the impact analysis, as referenced further below.

Issues identified in response to the Notices of Preparation (NOP) and revised NOP (Appendix 1) were considered in preparing this analysis. The NOP comments pertaining to GHG include a recommendation by the Sierra Club to incorporate trees and shrubs into the project design. This issue is addressed below in Section 3.4.2.3, *Impacts and Mitigation Measures* under *Land Use Emissions.*

3.4.1 Existing Conditions

3.4.1.1 Regulatory Setting

Federal

There is currently no federal overarching law specifically related to climate change or the reduction of GHG emissions. However, fuel standards have been adopted to reduce GHG emissions from cars and light duty trucks and recent amendments have been proposed.

Corporate Average Fuel Economy Standards

As discussed in Section 3.2, *Air Quality*, of this ~~Draft~~ EIR, the National Highway Traffic Safety Administrative (NHTSA) sets the Corporate Average Fuel Economy Standards (CAFÉ) standards to improve the average fuel economy and reduce GHG emissions generated by cars and light duty trucks. NHTSA and United States Environmental Protection Agency (EPA) have proposed to amend the current fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). California, 22 other states, the District of Columbia, and two cities filed suit against the proposed action on September 20, 2019 (California et al. v. United States Department of Transportation et al., 1:19-cv-02826, U.S. District Court for the District of Columbia). The lawsuit requests a "permanent injunction prohibiting Defendants from implementing or relying on the Preemption Regulation," but does not stay its implementation during legal deliberations. Part 1 of the SAFE Vehicles Rule went into effect on November 26, 2019. Part 2 of the Rule was finalized on March 30, 2020. The SAFE Vehicles Rule will decrease the stringency of CAFÉ standards to 1.5 percent each year through model year 2026, as compared with the standards issued in 2012, which would have required about 5 percent annual increases.

State

California has established various regulations to address GHG emissions. The most relevant of these regulations are described below

State Legislative Reduction Targets

Assembly Bill (AB) 32 (Chapter 488, Statutes of 2006), the Global Warming Solutions Act of 2006, requires the state to reduce GHG emissions to 1990 levels by 2020. SB 32 (2016) requires the state to reduce emissions to 40 percent below the 1990 level by 2030. The state's plan to reach these targets are presented in periodic scoping plans. The California Air Resources Board (CARB) (2017a) adopted the *2017 Climate Change Scoping Plan* in November 2017 to meet the GHG reduction requirement set forth in SB 32. It proposes continuing the major programs of the previous Scoping Plan, including Cap-and-Trade Regulation; low carbon fuel standards; more efficient cars, trucks, and freight movement; Renewables Portfolio Standard (RPS); and reducing methane emissions from agricultural and other wastes. The current Scoping Plan articulates a key role for local governments, recommending they establish GHG reduction goals for both their municipal operations and the community consistent with those of the state.

Executive Order Reduction Targets

In 2005, Executive Order EO S-3-05 established goals to reduce California's GHG emissions to (1) 2000 levels by 2010 (achieved); (2) 1990 levels by 2020; and (3) 80 percent below the 1990 levels by 2050. In 2018, EO B-55-18 established a new state goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Executive orders are binding on state government agencies but are not legally binding on cities and counties or on private development.

Renewables Portfolio Standard

SBs 1078 (2002), 107 (2006) 2 (2011) and 100 (2015) govern California's RPS under which investor-owned utilities, energy service providers, and Community Choice Aggregators must procure additional retail sales per year from eligible renewable sources. The current goals for renewable sources are 33 percent by 2020, 40 percent by 2024, 50 percent by 2026, 60 percent by 2030, and 100 percent by 2045.

Energy Efficiency Standards

The California Green Building Standards Code (Part 11, Title 24), commonly referred to as CALGreen, was adopted as part of the California Building Standards Code (24 California Code of Regulations [CCR]). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. These involved sustainable site development, energy efficiency (in excess of California Energy Code requirements), water conservation (e.g., low-flow fixtures), material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2019 and took effect on January 1, 2020.

Vehicle Efficiency Standards

AB 1493 (2002) (Pavley I) requires CARB to develop and implement regulations to reduce automobile and light-truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the model year 2009. Additional strengthening of the Pavley standards (referred to previously as *Pavley II* and now referred to as the *Advanced Clean Cars* measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025.

The National Highway Traffic Safety Administration and United States Environmental Protection Agency have proposed to amend the current fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). California, 22 other states, the District of Columbia, and two cities filed suit against the proposed action on September 20, 2019 (California et al. v. United States Department of Transportation et al., 1:19-cv-02826, U.S. District Court for the District of Columbia). The lawsuit requests a "permanent injunction prohibiting Defendants from implementing or relying on the Preemption Regulation," but does not stay its implementation during legal deliberations. Part 1 of the SAFE Vehicles Rule went into effect on November 26, 2019 and Part 2 went into effect on March 30, 2020.

Low Carbon Fuel Standard

With EO S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California in 2007. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Regional Land Use and Transportation Planning to Reduce Vehicle Miles Travel~~l~~ed

SB 375 (2009) requires the state's 18 Metropolitan Planning Organizations to develop the sustainable communities strategies (SCSs) as part of their Regional Transportation Plans (RTPs) through integrated land use and transportation planning, and to demonstrate an ability to attain the GHG emissions reduction targets that the CARB established for the region by 2020 and 2035. This would be accomplished through either the financially constrained SCS as part of the RTP or an unconstrained alternative planning strategy. A financially constrained SCS refers to an SCS with committed, available or reasonably available revenue sources for implementation. If regions develop integrated land use, housing, and transportation plans that meet the SB 375 targets, new projects in these regions can be relieved of certain CEQA review requirements.

CEQA Requirements to Assess Vehicle Miles Travel~~l~~ed

As discussed in Section 3.10, *Transportation*, SB 743 (2013) requires revisions to the CEQA Guidelines that establish new impact analysis criteria for the assessment of a project's transportation impacts. The intent behind SB 743 and revising the CEQA Guidelines is to integrate and better balance the needs of congestion management, infill development, active transportation, and GHG emissions reduction. ~~The Office of Planning and Research (OPR) recommends that vehicle miles traveled (VMT) serve as the primary analysis metric, replacing the existing criteria of delay and level of service. In 2018, OPR released a technical advisory outlining potential VMT significance thresholds for different project types.~~ The new vehicle miles traveled (VMT) methodology is required as of July 1, 2020~~, though it can be used earlier~~. The ~~City chose to base its~~ impact analysis for this EIR is based on VMT (see Section 3.10, *Transportation*).

Short-Lived Climate Pollutants Reduction Strategy

SB 605 directed CARB, in coordination with other State agencies and local air districts, to develop a comprehensive Short-Lived Climate Pollutants (SLCP) Reduction Strategy. SB 1383 directed CARB to approve and implement the SLCP Reduction Strategy to achieve the following reductions in SLCPs.

- 40% reduction in methane below 2013 levels by 2030
- 40% reduction in hydrofluorocarbon gases below 2013 levels by 2030
- 50% reduction in anthropogenic black carbon below 2013 levels by 2030

The bill also establishes the following targets for reducing organic waste in landfills and methane emissions from dairy and livestock operations.

- 50% reduction in organic waste disposal from the 2014 level by 2020
- 75% reduction in organic waste disposal from the 2014 level by 2025
- 40% reduction in methane emissions from livestock manure management operations and dairy manure management operations below the dairy sector's and livestock sector's 2013 levels by 2030

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the methane, hydrofluorocarbon, and anthropogenic black carbon reduction targets set by SB 1383. The SLCP Reduction Strategy includes 10 measures to reduce SLCPs, which fit within a wide range of ongoing planning efforts throughout the State. CARB and CalRecycle are currently developing regulations to achieve these goals.

Water Conservation Act of 2009

SB X7-7 was enacted in November 2009 and requires that all water suppliers increase their water use efficiency to achieve a 20 percent reduction in urban per capita water use in California by December 31, 2020. The state would be required to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. The bill would require each water suppliers develop urban water use targets.

Local

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the Metropolitan Planning Organization for the nine counties that comprise the San Francisco Bay Area and the San Francisco Bay Area Air Basin (SFBAAB), which includes the City of San Bruno. As described above, SB 375 requires the metropolitan planning organizations to prepare regional transportation plans/sustainable community strategies (RTPs/SCSs) that present integrated regional land use and transportation approaches to reduce VMT and their associated GHG emissions. CARB identified the initial goal for the SFBAAB as a reduction in VMT per capita by seven percent for 2020 and by 15 percent by 2035 compared to 2005 levels. MTC adopted a RTP/SCS in 2013 known as *Plan Bay Area* which was updated in 2017 as *Plan Bay Area 2040* to meet the initial goals. In 2018, CARB updated the per-capital GHG emissions reduction targets to be a 10 percent per capita GHG reduction by 2020 and 19 percent per capita reduction by 2035 from 2005 levels (California Air Resources Board 2018a). MTC will be addressing the revised goals in the next RTP/SCS.

Plan Bay Area 2040 are relevant to the Project because CEQA guidelines require assessment of a project's consistency with plans to reduce GHG emissions. Future CEQA review of new development applications under the Specific Plan should be based on the most current Plan Bay Area and RTP/SCS.

Bay Area Air Quality Management District

As discussed in Chapter 3.2, *Air Quality*, the Bay Area Air Quality Management District (BAAQMD) is responsible for air quality planning within the SFBAAB, including projects in the City of San Bruno. BAAQMD (2017a) has adopted advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's GHG emissions, including long range plans (e.g., general plans, specific plans), which are outlined in its *California Environmental Quality Act: Air Quality Guidelines* (CEQA Guidelines). The CEQA Guidelines also outline methods for quantifying GHG emissions, as well as potential mitigation measures.

City of San Bruno General Plan

The City of San Bruno General Plan, adopted in 2009, includes goals and policies that relate to climate change and GHG emission reduction (City of San Bruno 2009). The City of San Bruno General Plan has identified Land Use and Urban Design; Transportation; Open Space and Recreation; Environmental Resources and Conservation; Health and Safety; and Public Facilities and Services policies related to climate change and sustainability. Though these policies do not directly address GHG emissions, they aim to promote sustainable development practices such as protecting the natural environment, encouraging mixed-used development, and implementing best management practices (e.g., energy consumption, etc.). These sustainability practices may contribute to GHG emissions reduction. The Project's consistency with applicable goals and policies in the General Plan is evaluated in Section 3.6, *Land Use*.

3.4.1.2 Environmental Setting

This section discusses existing conditions related to GHG and climate change.

Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (Intergovernmental Panel on Climate Change 2007). Rising atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (Intergovernmental Panel on Climate Change 2018). Large-scale changes to Earth's system are collectively referred to as *climate change.*

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1°C above pre-industrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined estimates of contributions of GHGs from each country until 2030, global warming is expected to rise to 3°C by 2100, with warming to continue afterwards (Intergovernmental Panel on Climate Change 2018). Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

Greenhouse Gases

The principle anthropogenic (human-made) GHGs contributing to global warming are CO_2, methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources.

The primary GHGs of concern associated with the Project are CO_2, CH_4, and N_2O. Principal characteristics of these pollutants are discussed below.

Carbon dioxide enters the atmosphere through fossil fuels (oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or *sequestered*) when it is absorbed by plants as part of the biological carbon cycle.

Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.

Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (CO_2 has a global warming potential of 1 by definition).

Table 3.4-1 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 3.4-1. Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
CO_2	1	50–200
CH_4	25	9–15
N_2O	298	121

Source: California Air Resources Board 2018b.
CH_4 = methane
CO_2 = carbon dioxide
N_2O = nitrous oxide

All GWPs used for CARB's GHG inventory and to assess attainment of the State's 2020 and 2030 reduction targets are considered over a 100-year timeframe (as shown in Table 3.4-1). However, CARB recognizes the importance of short-lived climate pollutants and reducing these emissions to achieve the State's overall climate change goals. Short-lived climate pollutants have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate forcing impacts, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO_2 (CARB 2017b). Recognizing their short-term lifespan and warming impact, short-lived climate pollutants are measured in terms of CO2e using a 20-year time period. The use of GWPs with a time horizon of 20 years better captures the importance of the short-lived climate pollutants and gives a better perspective on the speed at which emission controls will impact the atmosphere relative to CO_2 emission controls. The Short-Lived climate Pollutant Reduction Strategy, which is discussed in Section 3.4.1.1, *Regulatory Setting*, addresses methane, hydrofluorocarbon gases, and anthropogenic black carbon. Methane has a lifetime of 12 years and a 20-year GWP of 72. Hydrofluorocarbon gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200 (CARB 2017b).

Greenhouse Gas Reporting

A GHG inventory is a quantification of all GHG emissions and sinks[1] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources. Table 3.4-2 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related emissions.

Table 3.4-2. Global, National, State, and Regional Greenhouse Gas Emission Inventories

Emissions Inventory	CO2e (metric tons)
2010 IPCC Global GHG Emissions Inventory	52,000,000,000
2017 EPA National GHG Emissions Inventory	6,472,300,000
2017 CARB State GHG Emissions Inventory	424,100,000
2015 BAAQMD GHG Emissions Inventory	85,000,000

Sources: Intergovernmental Panel on Climate Change 2014; U.S. Environmental Protection Agency 2019; California Air Resources Board 2019; Bay Area Air Quality Management District 2017b.

Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea level rise (both globally and regionally) as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change is expected to occur in the future,

[1] A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

although the precise extent will take further research to define. Specifically, significant impacts from global climate change worldwide and in California include:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor, due to the atmosphere's ability to hold more water vapor at higher temperatures (California Natural Resources Agency 2018);
- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets (Intergovernmental Panel on Climate Change 2018);
- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (Intergovernmental Panel on Climate Change 2013);
- Declining Sierra Mountains snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years (California Natural Resources Agency 2018);
- Increasing the number of days conducive to ozone formation (e.g., clear days with intense sun light) by 25 percent to 85 percent (depending on the future temperature scenario) by the end of the 21st Century in high ozone areas, including Southern California (California Natural Resources Agency 2018);
- Increasing the potential for erosion of California's coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level (California Natural Resources Agency 2018); and
- Exacerbating the severity of drought conditions in California such that durations and intensities are amplified, ultimately increasing the risk of wildfires and consequential damage incurred (California Natural Resources Agency 2018).
- Under changing climate conditions, agriculture is projected to experience lower crop yields due to extreme heat waves, heat stress and increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats (California Natural Resources Agency 2018).
- The impacts of climate change, such as increased heat-related events, droughts, and wildfires, pose direct and indirect risks to public health, as people will experience earlier death and worsening illnesses. Indirect impacts on public health include increased vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement (California Natural Resources Agency 2018).

3.4.2 Environmental Impacts

This section describes the impact analysis related to GHG emissions for the Project. It describes the methods used to quantify GHG emissions and discusses the thresholds used to evaluate whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

3.4.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant impact if it would result in any of the conditions listed below:

- Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The California Supreme Court's decision in *Center for Biological Diversity v. Department of Fish and Wildlife* (62 Cal.4th 204) confirmed that there are multiple potential pathways for evaluating GHG emissions consistent with CEQA. Several air quality management agencies throughout the state have also drafted or adopted varying threshold approaches and guidelines for analyzing GHG emissions in CEQA documents. Common threshold approaches include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, (4) efficiency-based thresholds, and (5) compliance with regulatory programs. These potential threshold approaches were reviewed for potential applicability to the Project. See further discussion in Appendix 3.2-1 about these approaches.

As described in Appendix 3.2-1, BAAQMD's CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, BAAQMD recommends that GHG emissions from construction be quantified and disclosed, and that a determination regarding the significance of these GHG emissions be made with respect to whether a project is consistent with the emission reduction goals. The BAAQMD further recommends incorporation of Best Management Practices to reduce GHG emissions during construction, as feasible and applicable. This approach is used to evaluate construction-generated emissions.

Based on the available threshold concepts recommended by air districts and the courts, GHG emissions from the Project are evaluated on a sector-by-sector (e.g., energy, water) basis using the most applicable regulatory programs, policies, and thresholds recommend by BAAQMD, CARB, and OPR, as described below ("compliance with regulatory programs"). Buildout years for the Phase I Development and the Project are ~~2022~~ 2025 and 2040, respectively.[2] The State has a reduction goal of carbon neutrality set by Executive Order B-55-18. However, the State's goal has not been codified in law, and neither the State nor the City has adopted a plan or framework to achieve the 2045 reduction goal. The State's 2030 target has been codified in law through SB 32 and the 2017 Climate Change Scoping Plan adopted to meet this goal. Therefore, 2030 marks the next statutory statewide milestone target applicable to the Project. The analysis focuses on the 2030 target and the plans, policies, and regulations adopted pursuant to achieving 2030 reductions. Emissions generated at full buildout in 2040 are used as an indicator for long-term emissions reduction progress and are evaluated as they relate to the Project's impacts on the State's long-term goal expressed under B-55-18. Where applicable, guidance from CARB, OPR, and other agencies related to long-term emissions reduction requirements is incorporated into the analysis.

- **Mobile sources**: CARB's 2017 Scoping Plan recognizes that while vehicle technologies and low carbon fuels will continue to reduce transportation sector emissions, VMT reductions are

[2] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emissions factors decline as a function of time due to increasingly stringent air emissions standards. Therefore, this analysis is conservative, as actual emissions would be expected to be lower in 2025.

necessary to achieve California's long-term GHG reduction target. Recent CARB analysis demonstrates that a 14.3 percent reduction of VMT per service population by 2050 (compared to a 2015-2018 average) would be needed statewide to meet their long-term climate change planning goals through 2050. This reduction target is consistent with recent OPR guidance issued on SB 743, as discussed in Section 3.4.1, *Existing Conditions* and Section 3.10, *Transportation*. The Project would be constructed after 2020 and have a buildout of 2040. Accordingly, use of CARB's 14.3 percent reduction of VMT per service population threshold for mobile source emissions is applicable to the Project. Mobile source emissions would be considered less than significant if the Project achieves a per service population VMT reduction of at least 14.3 percent (compared to a 2015-2018 average). In addition to VMT reductions, compliance with regulatory programs (e.g., AB 1493, Low Carbon Fuel Standard, SB 743, and SB 375) would also be required to reduce the statewide mobile GHG emissions for a less than significant impact.

- **Energy, water, waste, area, and land sources.** CARB's 2017 Scoping Plan, which relies heavily on state programs (e.g., Title 24 and SB 100), outlines strategies required to reduce statewide GHG emissions in order to achieve California's SB 32 reduction target. Projects that implement applicable strategies from the 2017 Scoping Plan would be consistent with the state's GHG reduction framework and requirements for these sectors. Accordingly, a sector-by-sector review of the respective project features and sustainability measures included in the Project and Phase I Development is provided to evaluate consistency with the 2017 Scoping Plan. This assessment also considers recent OPR (2018) guidance related to the long-term reduction of statewide emissions. Accordingly, energy, water, waste, area, and land use source emissions would be considered less than significant if the Project is consistent with all applicable 2017 Scoping Plan strategies and supporting regulations and guidance.
- Stationary sources. BAAQMD has adopted a threshold of 10,000 metric tons CO2e for stationary source projects. This threshold is consistent with stationary source thresholds adopted by other air quality management districts throughout the state. The threshold level is intended to capture 95 percent of all GHG emissions from new permit applications from stationary sources in the air basin and would do so by capturing only the large, significant projects since permit applications with emissions above the 10,000 metric tons CO2e threshold account for less than 10 percent of applications. The emergency generators included as part of the Project would be permitted sources, and as such, the BAAQMD's 10,000 metric tons CO2e threshold is appropriate for analyzing the significance of emissions generated by the generators. Stationary source emissions would be considered less than significant if emissions are less than 10,000 metric tons CO2e.

3.4.2.2 Methods for Analysis

GHG impacts associated with construction and operation of the Project were assessed and quantified (where applicable) using standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions can be found in Appendix 3.2-1.

Project

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multi-family residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed.

The types and levels of construction-generated GHG emissions are anticipated to be similar for both scenarios, but as described below, they cannot be precisely quantified. The differences in gross square footages of commercial and residential land uses would influence long-term operational emissions. While the Maximum Housing Scenario would allow for the development of slightly more square footage, as discussed in Section 3.10, *Transportation*, the Maximum Office Scenario would generate more vehicle trips. The majority of GHG emissions generated by a land use development project are from mobile sources. Accordingly, this analysis evaluates operational GHG emissions from the Maximum Office Scenario, which is the worst-case build out scenario with the greatest potential to result in significant impacts.

As discussed in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan also includes an equivalency exchange program that would allow for up to 115,422 square feet of hotel use or 34,265 square feet of retail use to be developed in lieu of up to 180,347 square feet of the new office development included in the EIR buildout projections (Tables 2-3 and 2-4). The emission levels presented in this section represent the highest emissions that could occur between these three potential land uses. For further discussion of the equivalency exchange program, refer to Appendix 4 of this ~~Draft~~ EIR.

Construction Emissions

Land uses that could be developed under the Specific Plan would generate construction-related GHG emissions from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, electricity consumption, and tree removal. The specific size, location, construction techniques, and scheduling that would be utilized for each individual development project occurring on the Project Site from implementation of the proposed Specific Plan is not currently known. With an anticipated buildout year of 2040, development of the various land uses associated with the proposed Specific Plan would occur over an extended period of time and would depend on factors such as local economic conditions, market demand, and other financing considerations. As such, without specific project-level details (with the exception of the Phase I Development which is described below) it is not possible to develop a refined construction inventory.[3] Consequently, the determination of construction-related GHG impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Thus, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related impacts resulting from implementation of the Specific Plan is conducted qualitatively in this EIR.

[3] Project-level information includes details such as the size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition and grading quantities.

Operational Mobile Source Emissions

GHG impacts from motor vehicles operating within the Project Site were evaluated using Caltrans' CT-EMFAC2017 emissions model (version 1.0.2.27401), CARB's EMFAC2017 emission model, and provided for the Maximum Office Scenario[4] by the traffic engineers (Chan pers. comm., McAdam pers. comm.).[5] Daily VMT data apportioned into 5 mph speed intervals and daily trips for existing (2017)[6,7] and buildout (2040) year conditions were provided with and without the Specific Plan. The analysis accounts for trip reductions achieved by quantifiable Specific Plan policies, including proximity to transit and mixed-use design.

GHG emissions were calculated by multiplying the VMT and trip estimates by the appropriate emission factors provided by CT-EMFAC2017 and EMFAC2017. Daily emissions were annualized using a factor of 347, consistent with CARB (2008) guidance. Please refer to Appendix 3.2-1 for the CT-EMFAC2017 and EMFAC2017 emission factors and traffic data utilized in this analysis.

Operational Area, Energy, Stationary, Water, and Waste Source Emissions

Area, energy, stationary water, and waste emissions were estimated using CalEEMod, version 2016.3.2. Landscaping equipment is the primary area source of GHG emissions. Energy sources include the combustion of natural gas, as well as the use and generation of electricity. Stationary sources include emergency generators. Water consumption results in indirect GHG emissions from the conveyance and treatment of water. Waste generation results in fugitive CH_4 and N_2O emissions from the decomposition of organic matter.

Emissions were quantified for existing (2017)[8] and buildout (2040) conditions with and without the Specific Plan for the Maximum Office Scenario.[9] The 2040 modeling reflects implementation of state measures to reduce GHG emissions (e.g., SB 100, Pavley). Quantifiable features consistent with Specific Plan policies, including the use of green consumer products, and required for compliance with CALGreen (i.e., low-flow fixtures) were incorporated into the CalEEMod model. CalEEMod defaults were assumed

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4 According to Fehr & Peers, the project traffic engineers, VMT for the Maximum Office Scenario would be lower if the equivalency program is utilized due to the greater diversity in land use mix. Therefore, the mobile source emissions presented in this analysis is representative of the worst-case scenario for the Specific Plan (Chan pers. Comm).

5 CARB recently released vehicle GHG adjustment factors to account for the SAFE Vehicle Rule Part 1 and Part 2. This analysis was completed prior to the release of CARB's guidance. As such, emissions presented for operation do not include the application of the adjustment factors. However, the adjustment factors would result in a less than 1 to 12% increase in GHG emissions associated with gasoline vehicles (e.g., tenant vehicles, etc.), depending on the pollutant year, during operation. The ~~Draft~~ EIR preparers considered applying this increase and determined that the neither the conclusions regarding the recommended mitigation measures nor their effectiveness would change.

6 Fehr & Peers, the project traffic engineers, utilized the San Mateo City/County Association of Governments (C/CAG) Travel Demand Model, the latest version of which uses 2013 as the existing year. For additional details, see Section 3.10, *Transportation (Introduction and Section 3.10.1.4).*

7 CEQA Guidelines Section 15125 states that an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation (NOP) is published, or if no NOP is published, at the time environmental analysis is commenced. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The EIR analysis began in 2017 when the EIR NOP was circulated. Therefore, it is appropriate and adequate under CEQA to use 2017 data for the baseline, or "existing," condition.

8 Ibid.

9 The highest emissions that could be generated by land use exchanges allowed under the equivalency program are conservatively presented in this analysis by pollutant and emission source.

based on the anticipated land uses identified in the Maximum Office Scenario. Please refer to Appendix 3.2-1 for the CalEEMod output files.

Selection of Future Year Baseline Conditions

The CEQA Guidelines provide that existing conditions at the time a Notice of Preparation is released or when environmental review begins “normally” constitute the baseline for environmental analysis. (Guidelines Section 15125). In 2010, the California Supreme Court issued an opinion holding that while lead agencies have some flexibility in determining what constitutes the baseline, relying on “hypothetical allowable conditions” when those conditions are not a realistic description of the conditions without the project would be an illusory basis for a finding of no significant impact from the project and, therefore, a violation of CEQA (*Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310).

On August 5, 2013, the California Supreme Court issued another baseline decision in *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (57 Cal.4th 439). This latest decision has clarified that, under certain circumstances, a baseline may reflect future, rather than existing, conditions. The rule specifies that factual circumstances can justify an agency departing from that norm in the following circumstances, when such reasons are supported by substantial evidence:

- When necessary to prevent misinforming or misleading the public and decision makers; and
- When their use in place of existing conditions is justified by unusual aspects of the project or surrounding conditions.

With respect to the Project, utilizing existing conditions to evaluate GHG impacts would potentially misrepresent and mislead the public and decision makers with respect to potential GHG impacts for two reasons: 1) natural vehicle fleet mix turnover, and 2) changes in on-road emission factors, each as described below.

1. The fleet mix in San Mateo County will be different by the time the Project is fully implemented in 2040, as the percentage of truck traffic to all vehicle traffic changes. Per CT-EMFAC 2017, in 2017, 5.1 percent of the San Mateo County fleet mix was made up of trucks, while in 2040 it is forecasted to increase to 7.7 percent (California Department of Transportation 2017). Trucks have different emissions profiles and are generally more emissions-intensive than passenger vehicles. Quantifying emissions under existing conditions would, therefore, misrepresent vehicle emissions associated with the vehicle fleet that will be in place once Project is fully operational.
2. On-road vehicle emissions rates are anticipated to lessen in the future due to continuing engine advancements and more stringent GHG regulations. Analyzing existing conditions (2017) and quantifying emissions utilizing 2017 vehicle emissions rates instead of the reduced 2040 vehicle emission rates would not only represent a factitious scenario but would also overestimate emissions reductions and potential GHG benefits achieved by the Project.

Accordingly, the CEQA baseline for the purposes of the Project’s GHG analysis is defined as buildout year (2040) conditions. Evaluating 2040-With-Project conditions against 2040-Without Project conditions ensures that future fleet changes and engine exhaust emissions factors are appropriately attributed to baseline conditions and not misrepresented as a project-related effect. Utilizing the Project buildout year conditions as the CEQA baseline is most appropriate to inform the public and decision makers with respect to GHG impacts, consistent with current CEQA case law. Where appropriate, emissions under existing conditions (2017) are also presented for informational purposes.

Phase I Development

Construction Emissions

Similar types of construction related GHG emission sources, as described above for the Specific Plan, are anticipated with construction of the Phase I Development. GHG emissions were estimated using the CalEEMod, version 2016.3.2.[10] Construction schedule, equipment operating details, trip numbers and lengths, and construction quantities were provided by the project sponsor (Weber pers. comm). Annual construction emissions were estimated using these project-specific details. Please refer to Appendix 3.2-1 for the construction modeling inputs and CalEEMod outputs.

Operational Mobile Source Emissions

GHG emissions from motor vehicles associated with the Phase I Development were evaluated using the same method and models (e.g., CT-EMFAC2017, EMFAC2017) as described above for the Specific Plan.[11] The analysis accounts for quantifiable trip reductions achieved by the Specific Plan policies (e.g., transit demand management measures), including proximity to transit and mixed-use design. Please refer to Appendix 3.2-1 for the CT-EMFAC and EMFAC2017 emission factors and traffic data utilized in this analysis.

Operational Area, Energy, Stationary, Water, and Waste Source Emissions

GHG emissions from other operational sources associated with buildout of the Phase I Development were evaluated using the same methods and models (e.g., CalEEMod) as described above for the proposed Specific Plan. Quantifiable features that are part of the project design, including the exceedance of Title 24 energy standards and water reduction goals, were incorporated into the CalEEMod model. Please refer to Appendix 3.2-1 for modeling assumptions and CalEEMod output files.

Selection of Future Year Baseline Conditions

Similar to the Project air quality analysis, utilizing existing conditions to evaluate GHG impacts of Phase I Development would potentially misrepresent and mislead the public and decision makers with respect to potential air quality impacts for two reasons: 1) natural vehicle fleet mix turnover, and 2) changes in on-road emission factors (detailed further above for the Project). Accordingly, the CEQA baseline for the purposes of this GHG analysis is defined as Phase I Development buildout year (2022) conditions.[12] Where appropriate, emissions under existing conditions (2017) are also presented for informational purposes.

10 Similar to the Specific Plan, this analysis does not include any adjustments to GHG emissions, though GHG emissions could presumably be higher than what is presented in this section. This analysis relies on the latest version of the model available at the time of the analysis.

11 Ibid.

12 This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emissions factors decline as a function of time due to increasingly stringent air emissions standards. Therefore, this analysis is conservative, as actual emissions would be expected to be lower in 2025.

3.4.2.3 Impacts and Mitigation Measures

Impact GHG-1a. The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during construction and operation (Project: Less than Significant with Mitigation).

Impact GHG-1b. The Phase I Development would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment during construction and operation (Phase I Development: Less than Significant with Mitigation).

Project

Construction

Construction associated with new land use developments under the Specific Plan would result in the temporary generation of GHG emissions. Emissions would originate from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. Construction-related GHG emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

By its nature as a planning document, the Specific Plan does not propose any specific development projects. At this time the Phase I Development is the only development proposal under the Specific Plan. As discussed in Chapter 2, *Project Description*, YouTube has identified four additional phases of future development for its properties, which are permitted under the Specific Plan. Additional development by other property owners within the Planning Area could also occur, as permitted under the Specific Plan. The exact types and sizes of future development under the Specific Plan would be driven by market conditions. It is anticipated that throughout the course of the buildout period, multiple land use development projects would be constructed intermittently within the Project Site. As the timing and intensity of future development projects is not known, the precise effects of construction activities associated with buildout of the Specific Plan cannot be accurately quantified at this time.

As noted previously, BAAQMD has not established a quantitative threshold for assessing construction-related GHG emissions. Rather, the air district recommends evaluating whether construction activities would conflict with statewide emission reduction goals and implement feasible Best Management Practices. Therefore, construction-related GHG emissions from the Specific Plan would be required to comply with **Mitigation Measure GHG-1**, which would reduce construction emissions consistent with BAAQMD guidance and statewide emission reduction goals. In addition, all proposals requiring demolition at the Project Site would be required to complete the City's Construction Waste Management Plan for approval before demolition commences. The plan would identify local recycling options and require the reuse and recycling of construction and demolition material. Accordingly, this impact is ***less than significant with mitigation***.

Operation

Operation of land uses within the Specific Plan would generate direct and indirect GHG emissions. Sources of direct emissions include mobile vehicle trips, emergency generators, natural gas combustion, and landscaping activities. Indirect emissions would be generated by electricity consumption, waste and wastewater generation, and water use. The Specific Plan's GHG emissions are evaluated for the Maximum Office Scenario under existing conditions (2017) and buildout year conditions (2040) with and without the Specific Plan. The analysis accounts for benefits achieved by policies in the Specific Plan that are required or otherwise mandatory, including the use of green consumer products (Policy 6-13) and compliance with CALGreen (i.e., installation of low-flow fixtures). The analysis also accounts for implementation of quantifiable state measures that will reduce GHG emissions (e.g., SB 100). The Specific Plan's net GHG emissions are determined by taking the difference in operational emissions between "2040 with Specific Plan" conditions and 2040 without Specific Plan ~~existing (2017) emissions of the Project Site~~. Table 3.4-3 presents the results of the analysis.

Table 3.4-3. Estimated Annual Specific Plan Operational GHG Emissions (Maximum Office Scenario) (metric tons)

Condition/Source	CO_2	CH_4	N_2O	CO_2e	% of Total CO_2e
Existing (2017)					
Area Sources	<1	<1	<1	<1	<1%
Energy Sources	5,131	<1	<1	5,161	25%
Mobile Sources	13,583	2	1	13,982	67%
Stationary Sources	10	<1	<1	10	<1%
Waste Generation	335	20	<1	830	4%
Water Consumption	437	9	<1	741	4%
Total Existing[a]	**19,496**	**32**	**1**	**20,724**	**100%**
2040 Without Specific Plan					
Area Sources	<1	<1	<1	<1	<1%
Energy Sources	1,945	<1	<1	1,959	16%
Mobile Sources	8,760	1	1	8,953	74%
Stationary Sources	10	<1	<1	10	<1%
Waste Generation	335	20	<1	830	7%
Water Consumption	114	9	<1	416	3%
Total 2040 Without Specific Plan[a]	**11,165**	**30**	**1**	**12,168**	**100%**
2040 With Specific Plan					
Area Sources	<1	<1	<1	<1	0%
Energy Sources	4,696	<1	<1	4,731	12%
Mobile Sources	31,409	2	2	32,099	81%
Stationary Sources	17	<1	<1	17	0%
Waste Generation	799	47	<1	1,980	5%
Water Consumption	231	19	1	839	2%
Total 2040 With Specific Plan[a]	**37,153**	**69**	**3**	**39,666**	**100%**
Net Increase with Specific Plan					
2040 With Specific Plan v. ~~Existing~~ Without Specific Plan	~~17,657~~ 25,989	~~37~~ 39	~~1~~ 2	~~18,942~~ 27,498	-

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs and mobile emissions calculations.

Notes: As noted above, the emissions analysis reflect implementation of quantifiable state measures that will reduce GHG emissions (e.g., SB 100), including Specific Plan policy related to use of green consumer products and compliance with the CALGreen which requires the installation of low-flow fixtures. In addition, for the 2040 With Specific Plan condition, the daily emissions presented are maximums anticipated under the Maximum Office Scenario. If the allowable land use exchange to hotel or retail under the equivalency program would result in higher emissions than the base office use, those emissions are shown here. Therefore, the total emissions represent the worst-case scenario.

[a] Values may not add due to rounding

The estimated Specific Plan emissions in 2040 are 39,666 metric tons of CO_2e (assuming the worst-case Maximum Office Scenario). This is an increase of 27,498 ~~18,942~~ metric tons of CO_2e from the Project Site ~~(93 percent)~~ when compared to 2040 without the Specific Plan ~~existing conditions~~. The Specific Plan would achieve additional GHG reductions through voluntary sustainability features that encourage alternative transportation, passive heating and cooling, and other GHG-reducing measures. However, these strategies were not quantified because the exact number of installed systems and affected structures are currently unknown and are not mandated by the Specific Plan. The following sections present the sector-by-sector analysis of GHG impacts, consistent with OPR, CARB, and BAAQMD guidance.

Mobile Source Emissions

GHG emissions associated with on-road mobile sources would be generated from workers, visitors, and delivery vehicles visiting the Project Site. As shown in Table 3.4-3, emissions from mobile sources represent the largest source of Project emissions (81 percent) and are expected to almost ~~more than double~~ quadruple, relative to ~~existing conditions~~ 2040 without the Specific Plan. This increase is primarily driven by the additional VMT expected as a result of the new Project land uses. The Specific Plan includes a suite of policies and improvements that would prioritize alternative modes of transportation, such as transit, bicycling, and walking, to reduce per service population VMT. For example, the Specific Plan encourages strengthening access between the Project Site and the regional transit systems including the San Bruno BART and San Bruno Caltrain stations (Policy 4-5). The Specific Plan also aims to effectively manage transportation demand and parking by supporting programs such as long-haul commuter shuttles and carshare already in place on the Project Site. The proposed transportation improvements identified in the Specific Plan would create stronger links for the pedestrian and bicycle network within the Project Site by striping bicycle lanes, increasing bicycle parking availability, installing pedestrian-oriented lighting and landscaping, and creating high-visibility crosswalks and pedestrian refuges. Refer to Chapter 5, *Circulation, Access, and Parking*, of the proposed Specific Plan for details regarding these policies and improvements.

As discussed above, CARB acknowledges that reductions in VMT are required to meet the state's long-term climate change goals. Recent CARB analysis demonstrates that a 14.3 percent reduction of VMT per service population by 2050 (compared to a 2015-2018 average) would be needed statewide to meet their GHG planning goals through 2050. As discussed in Section 3.10, *Transportation*, the Specific Plan would decrease the Project Site's VMT per service population because it would diversify land uses and provide additional employment that would ultimately reduce the distance people need to travel for work. However, Project-generated VMT per service population in 2040 would not meet the 14.3 percent VMT per service population reduction target needed to meet CARB's reduction target. Therefore, the Project could conflict with the state's long-term emission reduction trajectory.

As discussed in Section 3.10, *Transportation*, the Project VMT analysis results do not take into account any transportation demand management (TDM) efforts currently used by Bayhill employers or recommended as part of the Specific Plan. This is because neither the continuation of existing efforts nor the implementation of new programs are guaranteed in the time frame expected to build out the Project in its entirety. The TDM program in the Specific Plan provides a list of suggested programs and services, but developers and property managers may tailor their own list of measures to fit their unique workforce culture and schedule, such that even with implementation TDM may not be sufficient to reduce the Project's effect on VMT per service population to a less than significant impact. VMT impacts after mitigation are discussed below under *Conclusion*.

Area Source Emissions

Area source GHG emissions from the Specific Plan would be generated by landscaping-related fuel combustion sources, such as lawn mowers. The Specific Plan would encourage xeriscape landscaping, which is a type of landscaping designed for use in areas susceptible to drought and primarily includes the planting of native and low water usage plants (Policies 5-5 and 5-17) This type of landscaping typically requires minimal pruning and maintenance, thereby minimizing the use of trimmers and mowers. Specific Plan Policy 6-13 would also encourage all-electric landscaping equipment as a best practice to reduce operational GHG emissions.

The Scoping Plan does not include specific measures or 2030 emissions reduction requirements for landscaping equipment. However, achieving the state's long-term carbon neutral goal under B-55-18 (if legislatively adopted) will inevitably require the transition away from fossil-fuel power energy sources, including but not limited to landscaping equipment. OPR (2018) guidance recommends that land use development projects strive to avoid fossil fuels.

Energy Emissions

GHGs are emitted directly from buildings through the combustion of any type of fuel (e.g., natural gas for cooking). GHGs can also be emitted indirectly from the generation of electricity. The Scoping Plan outlines strategies to reduce energy demand and fossil fuel use, while increasing energy efficiency and renewable energy generation. These strategies include transitioning to cleaner fuels, greater efficiency in existing buildings, and electrification of end uses in commercial sectors.

The Specific Plan requires building design features that reduce energy consumption and increase renewable energy generation, consistent with the Scoping Plan. For example, the Specific Plan requires new construction to achieve United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Silver or above certification, or equivalent. The Specific Plan also requires new construction to either employ solar roofs on at least 30 percent of roof square footage or provide equivalent GHG reductions (Policy 6-15).

The Specific Plan includes other policies that would encourage energy efficiency, amongst other features consistent with the 2017 Scoping Plan's overall goal of reducing building energy emissions to meet the state's 2030 GHG reduction target. This includes promoting energy efficiency and demand response programs, energy audits, and achieving energy reduction goals (Policy 6-17). The Specific Plan also encourages all-electric building design and green roofs (Policy 3-25), consistent with the Scoping Plan and OPR recommendations to meet the state's expressed 2045 climate neutrality goal (EO B-55-18). Because SB 100 obligates utilities to supply 100 percent carbon-free electricity by 2045, all electric buildings that do not consume any natural gas would not generate any emissions. While the Specific Plan encourages all electric design and onsite renewable energy, it does not prohibit buildings from including natural gas appliances.

Land Use Emissions

Though not quantified, the Specific Plan would encourage tree planting and landscaping that would increase carbon sequestration. Policy 3-2 requires removed trees to be replaced at a 1:1 ratio. The Specific Plan would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and would assist with meeting the state's goals for climate neutrality (e.g., EO B-55-18) beyond 2030.

Waste Emissions

Solid waste may be disposed in landfills or diverted for recycling, composting, or reuse. GHG emissions from landfills are generated through anaerobic breakdown of material. The Scoping Plan aims to reduce waste emissions by diverting waste away from landfills through waste reduction, re-use, composting, and material recovery. In addition, AB 341 requires mandatory recycling for certain commercial businesses. The Specific Plan would encourage use of recycled building materials (Policy 3-25) and require recycling and composting programs (Policy 6-15). These features, if implemented, would be consistent with the Scoping Plan and would support AB 341's overall goal of reducing landfilled waste.

Water and Wastewater Emissions

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of water. Additional wastewater emissions include CH_4 and N_2O, although these are generated by wastewater treatment at individual wastewater treatment plants (WWTP). The project does not include any new WWTPs.

The Scoping Plan outlines objectives and goals to reduce GHGs in the water sector, including using and reusing water more efficiently through greater water conservation, drought tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted water supply and water conservation (e.g., SB X7-7) through building and landscaping efficiency (e.g., Title 24). The Specific Plan does not include any features that would conflict with these measures and programs. The Specific Plan would encourage water conservation features that would reduce indoor and outdoor water use. These features include encouraging water-efficient landscaping (Policies 5-5 and 5-16) and water conserving appliances (Policy 5-4). These voluntary features, if implemented, would be consistent with the Scoping Plan's water measures and the state's regulatory programs within the water sector.

Stationary Source Emissions

As shown in Table 3.4-3, emergency generator testing would generate 17 metric tons of CO_2e per year in 2040, a net increase of 7 metric tons of CO_2e per year from 2040 without the Specific Plan ~~existing conditions~~, which is below BAAQMD's stationary source threshold of 10,000 metric tons CO_2e per year.

Conclusion

As described above, stationary source emissions would be below BAAQMD's stationary source threshold. The Specific Plan would also be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and limited land use emissions.

As discussed in Section 3.10, *Transportation*, the Specific Plan ~~would~~ is designed to achieve the 14.3 percent VMT per service population reduction target by buildout year (2040) with the implementation of **Mitigation Measure TRA-1**, which ~~requires a reduction of~~ includes a goal to reduce the drive alone percentage from 54 percent to 43 percent (which equates to reducing VMT per service population by 14.3 percent), and requires an annual monitoring study to be completed by Project Site property owners, and ongoing monitoring and evaluation. ~~Achievement of the VMT per service population reduction target would ensure that the Specific Plan is consistent with regulatory programs such as SB 743 that expressly aims to reduce VMT consistent with the state's climate change goals.~~ This mitigation would directly reduce VMT by supporting alternative modes of transportation with provisions such as bicycle storage and car-sharing programs. However, the Project's character and context would reduce the ability of **Mitigation Measure TRA-1** to achieve the VMT and SOV reduction required. In addition to **Mitigation Measure**

TRA-1 ~~the VMT per service population reduction target~~, the Specific Plan would also be subject to ongoing regulatory programs related to fuel and vehicle efficiency (e.g., Pavley standards/Advanced Clean Cars, Low Carbon Fuel Standard). Vehicle electrification is also rapidly becoming part of the state's approach to reducing mobile source emissions (e.g., Title 24) and the state's cap-and-trade program continues to reduce emissions from transportation fuels. The Specific Plan would not conflict with these ongoing statewide efforts. Further, the Specific Plan includes policies that would prioritize transit and pedestrian connectivity, support transit priority measures, and enhance existing and construct new transit infrastructure to reduce per service population VMT. Nevertheless, the Specific Plan would result in significant VMT-related GHG emissions impacts after implementation of **Mitigation Measure TRA-1** on its own.

The Specific Plan policies represent a robust suite of possible strategies that will reduce emissions from building energy consumption, area sources, water consumption, and waste generation. These features are consistent with the 2017 Climate Change Scoping Plan, and if fully implemented by all land uses within the Project Site, would significantly reduce GHG emissions from these sources consistent with the state's near-term (2030) and long-term (2045) climate change goals. While the City, through the Specific Plan, would encourage implementation of voluntary sustainability features, there is no guarantee that all of these measures will be incorporated into the designs of all future developments. This is a potentially significant impact. Implementation of **Mitigation Measure GHG-2** is therefore required to reduce operational GHG emissions in the sectors with the largest amount of emissions (other than on-road emissions addressed by **Mitigation Measure TRA-1**). **Mitigation Measure GHG-2**, which includes requirements for LEED certification or equivalent, electric space and water heating, solar roofs, and waste diversion programs, would ensure consistency with the 2017 Climate Change Scoping Plan and the long-term statewide reduction trajectory. Should all measures included in **Mitigation Measure GHG-2** be implemented by a future project sponsor, that development would be consistent with the Scoping Plan and the state's reduction targets for non-transportation emissions; GHG impacts for non-transportation sectors would be less than significant and no further action would be required. However, because the extent of implementation of **Mitigation Measure GHG-2** is currently unknown (e.g., applicability and feasibility), impacts from future development for non-transportation sectors could remain significant for some sectors if all strategies are not implemented for a particular project or equivalent measures are not identified by a project sponsor. For projects where all of the requirements of **Mitigation Measure GHG-2** (or their equivalent) are not implemented for non-transportation emissions and for all projects relative to transportation emissions where **Mitigation Measure TRA-1** does not meet the 14.3 VMT/service population threshold, implementation of **Mitigation Measure GHG-3** is further required to reduce net operational GHG emissions through purchase of GHG mitigation credits. Accordingly, with implementation of the mitigation measures described above, as applicable on a project-by-project basis, operational GHG emissions under the Specific Plan would be ***less than significant with mitigation***. It is noted that **Mitigation Measure GHG-2** and **Mitigation Measure GHG-3** are not required for the Phase I Development, which is analyzed separately below.

Phase I Development

Construction

The types of construction GHG emissions generated by the Phase I Development would be similar to those described above for the Specific Plan. Construction activities for the Phase I Development include the demolition of three structures, construction of two new office buildings, utility installations, realignment of Grundy Lane, and construction of a transit hub. These activities would require mobile and stationary construction equipment and on-road vehicles such as haul trucks for demolition debris and vendor trucks for deliveries. Site grading and excavation would be required for building foundations, utilities, and pervious pavement and landscaping. Estimated construction GHG emissions are presented in Table 3.4-4. The table shows that Phase I Development construction would generate approximately 12,783 metric tons of CO_2e over the three-year construction period.

Table 3.4-4. Estimated Construction GHG Emissions from the Phase I Development (metric tons)[a]

Year	CO_2	CH_4	N_2O	CO_2e
2020	3,374	<1	<1	3,386
2021	6,821	<1	<1	6,831
2022	2,562	<1	<1	2,566
Total[b]	12,757	1	<1	12,783

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs and construction energy calculations.

Notes:

[a] Emissions represent the sum of emissions from the CalEEMod construction output and energy consumption (approximately 78,000 kilowatt-hours per year) during construction.

[b] Totals may not add up due to rounding.

[c] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emissions factors decline as a function of time due to increasingly stringent air emissions standards. Therefore, this analysis is conservative, as actual emissions would be expected to be lower in 2025.

As described above, BAAQMD has not established a quantitative threshold for assessing construction related GHG emissions. Rather, the air district recommends evaluating whether construction activities would conflict with statewide emission reduction goals and implement feasible Best Management Practices. Therefore, construction-related GHG emissions from the Phase I Development would be mitigated to a ***less-than-significant*** level with implementation of **Mitigation Measure GHG-1**, which requires the implementation of Best Management Practices recommended by BAAQMD during construction and would thus avoid any conflict with statewide emission reduction goals.

Operation

The types of operational GHG emissions for the Phase I Development would be similar to those described above for the Specific Plan. Operational GHG emissions were evaluated under existing conditions ~~year~~ (2017) and ~~Phase I Development~~ buildout year conditions (2022) with and without Phase I Development ~~conditions~~.[13] The analysis includes emissions benefits from statewide GHG reduction programs (e.g., SB 100) and quantifiable sustainability measures, including use of green consumer products, reduction of indoor water use by 25 percent, and exceedance of Title 24 standards by 16 percent, that are incorporated into the Phase I Development design. The Phase I Development's net GHG emissions is determined by taking the difference in operational emissions between "2022 with Phase I Development" conditions and "2022 without Phase I Development" conditions ~~existing (2017) emissions~~. Table 3.4-5 presents the results of the analysis.

[13] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emissions factors decline as a function of time due to increasingly stringent air emissions standards. Therefore, this analysis is conservative, as actual emissions would be expected to be lower in 2025.

Table 3.4-5. Estimated Annual Unmitigated Phase I Development Operational GHG Emissions (metric tons)[a]

Condition/Source	CO2	CH4	N2O	CO2e	% of Total CO2e
Existing (2017)					
Area Sources	<1	<1	<1	<1	<1%
Energy Sources	999	<1	<1	1005	7%
Mobile Sources	13,583	2	1	13,982	91%
Stationary Sources	3	<1	<1	3	<1%
Waste Generation	63	4	<1	157	1%
Water Consumption	90	2	<1	153	1%
Total Existing[a]	**14,739**	**8**	**1**	**15,300**	**100%**
2022[b] No Phase I Development					
Area Sources	<1	<1	<1	<1	<1%
Energy Sources	800	<1	<1	805	6%
Mobile Sources[b]	11,920	1	1	12,212	92%
Stationary Sources	3	<1	<1	3	<1%
Waste Generation	63	4	<1	157	1%
Water Consumption	69	2	<1	131	1%
Total 2022[b] Without Phase I Development[a]	**12,857**	**7**	**1**	**13,309**	**100%**
2022[b] With Phase I Development					
Area Sources	<1	<1	<1	<1	<1%
Energy Sources	1,377	<1	<1	1,386	6%
Mobile Sources [b]	19,311	3	2	19,882	91%
Stationary Sources	10	<1	<1	10	<1%
Waste Generation	120	7	<1	298	1%
Water Consumption	105	3	<1	194	1%
Total 2022[b] With Phase I Development[a]	**20,924**	**13**	**2**	**21,770**	**100%**
Net Increase With Phase I Development					
2022 With Phase I Development v. ~~Existing~~[a]2022 Without Phase I Development[a,b]	~~6,184~~ 8,067	~~5~~ 6	1	~~6,470~~ 8,461	-

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs and mobile emissions calculations.

Notes: As noted above, the analysis includes benefits achieved by the quantifiable sustainability measures incorporated as project commitments (e.g., indoor waste use reduction, exceedance of Title 24 standards, use of green consumer products) and implementation of state measures that will reduce GHG emissions (e.g., SB 100).

[a] Values may not add due to rounding.

[b] This analysis is based on a buildout year of 2022, which was the anticipated buildout year for the Phase I Development at the time the Draft EIR analysis was prepared. The anticipated buildout year for the Phase I Development was later updated to 2025. Equipment and vehicle emission factors decline as a function of time due to increasingly stringent air emission standards. Therefore, this analysis is conservative, as actual emissions would be expected to be lower in 2025."

As shown in Table 3.4-5, the Phase I Development would result in approximately 21,770 metric tons of CO_2e per year. This is an increase of 8,461 ~~6,470~~ metric tons of CO_2e (64 ~~42~~ percent) compared to Future Without Phase I Development ~~existing conditions~~. The following sections present the sector-by-sector analysis of GHG impacts, consistent with OPR, CARB, and BAAQMD guidance. Because the Phase I

Development would be in operation in ~~2022~~ <u>2025</u>, the 2017 Scoping Plan, which outlines reduction targets through 2030, is the most relevant regulatory document to evaluate the Phase I Development.

Mobile Source Emissions

As shown in Table 3.4-5, emissions associated with mobile sources would be approximately 19,882 metric ton of CO_2e per year in ~~2022~~ <u>2025</u>, which is an increase of <u>63</u> ~~42~~ percent, relative to <u>Future Without Phase I Development</u> ~~existing conditions~~. This increase is primarily driven by the additional VMT expected as a result of the Phase I Development. As discussed in Section 3.10, *Transportation*, ~~prior to mitigation,~~ the Phase I Development would increase per service population VMT, relative to <u>Future Without Phase I Development</u> and would not meet the 14.3 percent VMT per service population reduction target and therefore, could conflict with the state's long-term emission reduction trajectory.

Area Emissions

As shown in Table 3.4-5, emissions associated with area sources would be less than 1 metric ton of CO_2e per year~~ in 2022~~. Area sources include gasoline-powered landscaping equipment (e.g., trimmers, mowers). Area source emissions are based on CalEEMod's default assumptions, which represent a conservative estimate of equipment usage based on square footage of new building space. The surfaces at the Phase I Site would consist of the office buildings, sidewalks and streets, landscaping, and pervious pavement. Landscaping, which would include primarily trees, shrubs and pervious pavement, as opposed to grassed areas, would thereby minimize the routine use of mowers and other landscaping equipment.

As described above, there are no relevant measures in the Scoping Plan for landscaping equipment. While the inevitable transition away from fossil fuel equipment would be needed to achieve carbon neutrality by 2045, the Scoping Plan did not assume all electric landscaping equipment in their 2030 reduction analysis. The Phase I Development's use of primarily trees and shrubs over grassed areas would reduce landscaping emissions relative to buildings that largely incorporate grass. This is consistent with the Scoping Plan's overall goal of reducing emissions from fossil-fueled landscaping equipment.

Energy Emissions

As shown in Table 3.4-5, building energy emissions would be approximately 958 metric tons of CO_2e per year, a net increase of approximately 543 metric tons of CO_2e from existing conditions. OPR's 2018 *CEQA and Climate Change Advisory* recommends that a land use development project that "achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation." While OPR recommends new building do not consume fossil fuels, the 2017 Climate Change Scoping Plan does not assume all electric buildings in their 2030 reduction analysis. Rather, the 2017 Climate Change Scoping Plan assumes new gas appliances will be high efficiency.

The Phase I Development would install Energy Star appliances and meet United States Green Building Council's LEED Silver v4 certification standards or equivalent, exceeding the 2016 Title 24 standards by approximately 16 percent. Though the Phase I Development would allow for natural gas appliances, all units would meet high efficiency standards, consistent with the assumptions and emissions reduction requirements of the 2017 Climate Change Scoping Plan for 2030. Furthermore, the Phase I Development would be enrolled in a larger corporate program which strives to offset 100 percent of its carbon emissions from energy consumption through the purchase and retirement of high-quality carbon offsets. These efforts are consistent with the Scoping Plan.

Land Use Emissions

The Phase I Development would remove approximately 154 existing trees (of and would replace removed trees at a minimum 1:1 ratio. While there are no relevant measures in the Scoping Plan or explicit regulatory requirements related to tree planting, the no net loss in trees is consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration.

Waste Emissions

As shown in Table 3.4-5, emissions associated with waste would be approximately 298~~103~~ metric tons of CO_2e per year, a net increase of 141~~38~~ metric tons of CO_2e from Future Without Phase I Development ~~existing~~ conditions. The Phase I Development would install trash/recyclable/compostable receptacles, where the generation of all waste is tracked by weight on a monthly basis. In addition, the Phase I Development includes a partnership with LeanPath to track pre-consumer waste generated from on-site dining facilities to identify trends and make data-driven improvements to increase recycling and composting and reduce landfilled waste. These features are consistent with the Scoping Plan's overall goal of reducing waste emissions, and its specific strategy to avoid landfill methane emissions by reducing the disposal of landfilled waste and organics through programs such as edible food recovery programs. In addition, these features would support and comply with AB 341's mandatory recycling requirement and support the state's recycling goal.

Water Emissions

As shown in Table 3.4-5, emissions associated with water use would be approximately ~~134~~194 metric tons of CO_2e per year, a net increase of 63~~71~~ metric tons of CO_2e from Future Without Phase I Development ~~existing~~ conditions. The Phase I Development includes several water conservation features. For example, all buildings would meet LEED Silver v4 certification or equivalent, install water conserving appliances and low-flow fixtures, and achieve a 25 percent reduction in indoor water use relative to business as usual. Outdoor water conservation measures include installation and maintenance of water-efficient landscaping with low-usage plant material to minimize irrigation requirements. Water use will be tracked and reviewed on a monthly basis to better assess water use and adaptively management conservation efforts. Furthermore, the project would comply with all applicable City and State water conservation (indoor and outdoor) measures, including Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, and CALGreen. These features are consistent with the Scoping Plan's overall goal of reducing water emissions and serve to support ongoing regulatory programs (e.g., SB X7-7, Title 24) that aim to reduce GHG emissions associated with conveying water and distributing water to ultimately achieve climate neutrality.

Stationary Source Emissions

As shown in Table 3.4-5, stationary sources (i.e., emergency generators) would generate approximately 10 metric tons of CO_2e per year, a net increase of 7 metric tons of CO_2e per year from existing conditions. This net increase is below BAAQMD's stationary source threshold of 10,000 metric tons of CO_2e per year.

Conclusion

Stationary source emissions would be below BAAQMD's stationary source threshold. The Phase I Development would replace removed trees, and therefore, would be consistent with Scoping Plan's overall goal of avoiding losses in carbon sequestration. Similarly, the Phase I Development's sustainability measures represent a robust suite of strategies that are consistent with applicable policies from the 2017

Climate Change Scoping Plan and regulatory programs for the area, energy, water, waste, and land use sectors. As discussed in Section 3.10, *Transportation*, the Phase I Development ~~would~~ is designed to achieve the 14.3 percent VMT per service population reduction target with implementation of **Mitigation Measure TRA-2**, which would reduce mobile emissions from 19,882 metric ton of CO_2e to 16,582 metric tons of CO_2e per year ~~in 2022~~. Achievement of the VMT per service population reduction target ensures that the Phase I Development is consistent with regulatory programs such as SB 743 that expressly aim to reduce VMT consistent with the state's climate change goals. In addition, the Phase I Development would also be subject to the same regulatory programs related to fuel and vehicle efficiency, and vehicle electrification as the Specific Plan. Therefore, GHG impacts from mobile sources would be less than significant with mitigation.

Based on the above analysis, overall GHG emission impacts from construction and operation of the Phase I Development would be ***less than significant with mitigation***.

Mitigation Measures

The purpose of the mitigation measures below is to require specific Project GHG emission reductions so as to be consistent with California GHG reduction targets required in SB 32 for 2030, and to support long-term reductions consistent with the need to eventually reach carbon neutrality statewide. The measures below are either recommended by BAAQMD (in regard to construction) or are consistent with the major strategies for GHG reductions reflected in the State's 2017 Scoping Plan to meet long-term reduction targets in SB 32.

For the Project (i.e., all other development under the Specific Plan aside from the Phase I Development which is subject to its own mitigation described below), mitigation required includes **Mitigation Measure GHG-1** concerning construction GHG emissions, **Mitigation Measure TRA-1** concerning operational VMT reductions, **Mitigation Measure GHG-2** concerning operational GHG emissions (other than on-road emissions), and **Mitigation Measure GHG-3** concerning GHG mitigation credits. **Mitigation Measure GHG-3** is only required if development under the Specific Plan is unable or unwilling to implement all the specified measures in **Mitigation Measure GHG-2** or equivalent measures. Implementation of these mitigation measures would reduce the Project impact associated with GHG emissions to a less-than-significant level. This impact would be ***less than significant with mitigation.***

For the Phase I Development, mitigation required includes **Mitigation Measure GHG-1** concerning construction GHG emissions and **Mitigation Measure TRA-2** concerning operational VMT reductions. Implementation of these mitigation measures would reduce the Phase I Development impact associated with GHG emissions to a less-than-significant level. This impact would be ***less than significant with mitigation.***

Mitigation Measure GHG-1: Require Implementation of BAAQMD-recommended Construction Best Management Practices.

All applicants within the Planning Area shall require their contractors, as a condition of contracts, to reduce construction-related GHG emissions by implementing BAAQMD's recommended best management practices, in effect at the time of construction, including the following measures (based on BAAQMD's (2017) CEQA Guidelines):

- Ensure alternative fueled (e.g. biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet;

- Use local building materials of at least 10 percent (sourced from within 100 miles of the Planning Area); and
- Recycle and reuse at least 50 percent of construction waste or demolition materials.

Mitigation Measure GHG-2: Implement Operational GHG Reduction Measures or their Equivalent.

Applicants of future projects other than the Phase I Development, which has incorporated sustainability design features consistent with the 2017 Scoping Plan to meet the state's long term GHG reduction target, shall implement the following operational GHG emissions reduction strategies where feasible, or demonstrate why a measure is not feasible and implement equivalent GHG reductions to the foregone measure, or pay a mitigation fee per **Mitigation Measure GHG-3** (see below) to compensate for any foregone GHG reductions not implemented. Applicants of future projects other than the Phase I Development that do not propose to implement all of the strategies described below shall prepare a feasibility study outlining why the declined strategies were not implemented (e.g., feasibility, not applicable, etc.), estimating the foregone GHG reductions, and identifying any equivalent GHG reduction measures proposed (or proposal to pay a mitigation fee instead) for the City's review and concurrence prior to the issuance of building permits.

- **LEED Certification.** The United States Green Building Council (USGBC) is a private 501(c)3, non-profit organization which promotes sustainability in building design, construction, and operation. The USGBC developed the LEED program which provides a rating system that awards points for new construction based on energy use, materials, water efficiency, and other sustainability criteria. LEED has certification systems for both commercial and residential use.
  - While LEED allows some flexibility in choice of measures to meet LEED criteria, new construction shall be required to include specific committed measures in use of recycled and sustainable materials in construction, water efficiency, and efficiency of energy use. New development in the Specific Plan Area shall be required to achieve LEED Silver certification or equivalent, or a higher certification, or provide equivalent GHG reductions through proposed new measures or payment of a fee per **Mitigation Measure GHG-3**.
- **Electric Space and Water Heating for Buildings.** Electric space and water heating avoids the use of natural gas for heating. This facilitates the usage of renewable energy because electric utilities are required by law to continually increase their portfolios of renewable energy sources until they reach 100 percent renewable in 2045.
  - New construction in the Specific Plan Area shall be required to either employ electric space and water heating or provide equivalent GHG reductions through proposed new measures or payment of a fee per **Mitigation Measure GHG-3**. The inclusion of electric heating may be part of meeting LEED Silver or equivalent requirements.
- **Solar Roofs.** Mounted rooftop electricity-generating solar panels convert solar energy to electricity for use in commercial and residential buildings.
  - New construction in the Specific Plan Area shall be required to either employ solar roofs on at least 30 percent of roof square footage or provide equivalent GHG reductions through proposed new measures or pay a mitigation fee per **Mitigation Measure GHG-3**. The inclusion of solar roofs may be part of meeting LEED Silver or equivalent requirements.

- **Waste Minimization Programs.** For waste that is generated by non-residential uses, recycling, composting of food waste and other organics, and the use of reusable products instead of disposal products diverts solid waste from the landfill stream.
    - New non-residential uses in the Specific Plan Area shall be required to implement recycling (including organics recycling) and reusable product use programs or provide equivalent GHG reductions through proposed new measures or pay a mitigation fee per **Mitigation Measure GHG-3**. The inclusion of these measures may be part of meeting LEED Silver or equivalent requirements.

Mitigation Measure GHG-3: Purchase of GHG Mitigation Credits.

This mitigation measure applies to applicants of future projects other than the Phase I Development, which has incorporated sustainability design features consistent with the 2017 Scoping Plan to meet the state's long term GHG reduction target. Where a future project does not propose to implement all of the GHG reduction measures in **Mitigation Measure GHG-2** <u>and/or does not meet the VMT threshold of 21.7 VMT/Service Population</u> and does not propose equivalent reduction measures to compensate for the measures not implemented <u>or the VMT threshold not met</u>, the project applicant shall be required to pay on a pro rata basis for net operational GHG emissions to compensate for emissions foregone from not implementing all measure in **Mitigation Measure GHG-2** <u>or meeting the VMT threshold</u> or providing equivalent reductions.

Applicants may purchase GHG credits from a voluntary GHG credit provider[14] that has an established protocol that requires projects generating GHG credits to demonstrate that the reduction of GHG emissions are real, permanent, quantifiable, verifiable, enforceable, and additional (per the definition in California Health and Safety Code Sections 38562(d)(1) and (2)). Definitions for these terms are as follows.

- Real: Estimated GHG reductions should not be an artifact of incomplete or inaccurate emissions accounting. Methods for quantifying emission reductions should be conservative to avoid overstating a project's effects. The effects of a project on GHG emissions must be comprehensively accounted for, including unintended effects (often referred to as "leakage"). To ensure that GHG reductions are real, the reduction must be a direct reduction within a confined project boundary.
- Additional: GHG reductions must be additional to any that would have occurred in the absence of the Climate Action Reserve, or of a market for GHG reductions generally. "Business as usual" reductions (i.e., those that would occur in the absence of a GHG reduction market) should not be eligible for registration.
- Permanent: To function as offsets to GHG emissions, GHG reductions must effectively be "permanent." This means, in general, that any net reversal in GHG reductions used to offset emissions must be fully accounted for and compensated through the achievement of additional reductions.
- Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the offset project boundary, while accounting for uncertainty and activity-shifting leakage and market-shifting leakage.

[14] Examples of potential GHG credit sources include the Climate Action Reserve Voluntary Offset Registry and Climate Forward program, the American Carbon Registry, or other providers using the Verified Carbon Standard.

- Verified: GHG reductions must result from activities that have been verified. Verification requires third-party review of monitoring data for a project to ensure the data are complete and accurate.
- Enforceable: The emission reductions from offset must be backed by a legal instrument or contract that defines exclusive ownership and the legal instrument can be enforced within the legal system in the country in which the offset project occurs or through other compulsory means. Please note that per this mitigation measure, only credits originating within the United States are allowed.

GHG credits must also meet the following requirements:

- GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or forecasted mitigation units for future committed GHG emissions meeting protocols.
- All credits shall be documented per protocols functionally equivalent in terms of stringency to CARB's protocol for offsets in the cap and trade program. The applicant must provide the protocols from the credit provider and must document why the protocols are functionally equivalent.
- Applicants shall identify GHG credits in geographies closest to San Mateo County first and only go to larger geographies (i.e., California, United States, global) if adequate credits cannot be found in closer geographies, or the procurement of such credits would create an undue financial burden. Applicants shall provide the following justification for not using credits in closer geographies in terms of either availability or cost prohibition:
  - Lack of enough credits available in closer geographies
  - Prohibitively costly credits in closer geographies defined as credits costing more than 300 percent the amount of the current costs of credits in the regulated CARB offset market.
  - Documentation submitted supporting GHG credit proposals shall be prepared by individuals qualified in GHG credit development and verification and such individuals shall certify the following: (1)Proposed credits meet the definitions for the criteria provided in this measure; and (2) the protocols used for the credits meet or exceed the standards for stringency used in CARB protocols for offsets under the California cap-and-trade system.

This mitigation includes the following specific requirements for applicants of future projects (other than the Phase I Development):

- Applicants shall provide the City with a 30-year operational GHG emissions estimate for the final design that includes two scenarios: 1) project operations including all **Mitigation Measure GHG-2** reduction measures <u>and the emissions associated with meeting the VMT threshold of 21.7 VMT/Service population</u>; and 2) project operations only including those **Mitigation Measure GHG-2** reduction measures the applicant proposes to implement and any alternative GHG reduction measures proposed by the applicant <u>and the emissions associated with the likely achievable VMT/Service Population estimated for the project with implementation of **Mitigation Measure TRA-1**</u>. The emissions estimate can be focused exclusively on the sectors where **Mitigation Measure GHG-2** measures will not be fully implemented <u>and/or a shortfall in meeting the VMT threshold is expected</u>. The difference between the Scenario 1 and Scenario 2 operational emissions will define the amount of needed annual GHG reductions to be addressed through purchase of GHG mitigation credits. The City shall review the emission estimates to ensure they are representative and determine the total amount of annual GHG emissions required to be addressed through purchase of mitigation credits.

- Applicants shall purchase GHG mitigation credits meeting the above requirements and provide documentation to the City of how the credits meet the above requirements. Applicants shall provide the City with documentation of the retirement of sufficient GHG credits to meet the annual GHG reduction amount prior to January 1 of each calendar year for the following year. This requirement shall apply to operations for up to 30 years. Applicants may purchase credits up front or in advance as they choose.

Mitigation Measure TRA-1: Please see Mitigation Measure TRA-1 in Section 3.10, *Transportation*. This mitigation measure is not required for the Phase I Development.

Mitigation Measure TRA-2: Please see Mitigation Measure TRA-2 in Section 3.10, *Transportation.* This mitigation measure is only required for the Phase I Development.

Impact GHG-2a. The Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases during construction and operation (Project: Less than Significant with Mitigation).

Impact GHG-2b. The Phase I Development would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases during construction and operation (Phase I Development: Less than Significant with Mitigation).

AB 32, SB 32, EO-S-3-05, and EO B-55-18

AB 32 and SB 32 outline the state's GHG emissions reduction targets for 2020 and 2030, respectively. While not legislatively adopted, EO S-03-05 establishes the state's long-term goal to reduce GHG emissions 80 percent from 1990 levels by 2050. EO B-55-18 sets a more ambitious state goal of net zero GHG emissions by 2045.

In 2008 and 2014, CARB adopted the Scoping Plan and First Update, respectively, as a framework for achieving AB 32. The Scoping Plan and First Update outline a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. CARB adopted the Climate Change Scoping Plan in November 2017 as a framework to achieve the 2030 GHG reduction goal described in SB 32. There is no state plan for addressing GHG reductions beyond 2030.

Based on CARB's 2017 Scoping Plan, many of the reductions needed to meet the 2030 target will come from state regulations, including cap-and-trade, the requirement for increased renewable energy sources in California's energy supply, updates to Title 24, and increased emission reduction requirements for mobile sources. The 2017 Scoping Plan indicates that reductions would need to come in the form of changes pertaining to vehicle emissions and mileage standards, changes pertaining to sources of electricity and increased energy efficiency at existing facilities, and state and local plans, policies, or regulations that will lower GHG emissions relative to business-as-usual conditions. The 2017 Scoping Plan carries forward GHG reduction measures from the First Update, as well as new potential measures to help achieve the state's 2030 target across all sectors of the California economy, including transportation, energy, and industry.

Project

Most GHG emissions generated by the construction activities would be short term and would cease once construction is complete. Implementation of **Mitigation Measure GHG-1** would result in less than significant impacts during construction. Therefore, construction activities under the Specific Plan would not conflict with or obstruct implementation of an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts would be ***less than significant with mitigation***.

Implementation of **Mitigation Measure TRA-1** would reduce mobile source emissions during operation and reduce VMT per service population sufficiently to meet the 14.3 percent reduction target. Stationary source emissions would be below BAAQMD's stationary source threshold. The Specific Plan would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration. Implementation of **Mitigation Measure GHG-2** would require the implementation of various GHG reduction measures, assisting the state with meeting its reduction targets under AB 32 and SB 32, and its carbon neutrality goal under EO B-55-18. However, the exact feasibility of implementing every measure in **Mitigation Measure GHG-2** (or providing equivalent reduction measures) is unknown for future projects in the Specific Plan area (e.g., applicability and feasibility) and impacts from emission sources could remain significant. **Mitigation Measure GHG-3** is further required to reduce operational GHG emissions through the purchase of GHG mitigation credits should future projects not be able to implement all measures in **Mitigation Measure GHG-2** or provide equivalent reduction measures) which would ensure that future development under the Specific Plan would not substantially increase GHG emissions. Therefore, overall GHG emissions during operation would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. GHG impacts of the Specific Plan would be ***less than significant with mitigation.***

Phase I Development

Most GHG emissions generated by the construction activities would be short term and would cease once construction is complete. As discussed in Impact GHG-1, implementation of **Mitigation Measure GHG-1** would result in less than significant impacts during construction. Therefore, construction activities under the Phase I Development would not conflict with or obstruct implementation of an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be ***less than significant with mitigation.***

Implementation of **Mitigation Measure TRA-2** would reduce mobile source emissions during operation to sufficiently to meet the 14.3 percent VMT per service population a reduction target. Stationary source emissions would be below BAAQMD's stationary source threshold. As discussed above, the Phase I Development would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration given the proposed tree replacements. The Phase I Development would fully implement sustainability measures, such as achieving LEED Silver v4 certification or equivalent, achieving an indoor water education goal of 25 percent, and waste diversion programs, which are consistent with the 2017 Scoping Plan, and would reduce GHG emissions and associated impacts from area, energy, water, and waste sources to less than significant levels. These reductions would assist the state with meeting its GHG reduction goals. Therefore, GHG impacts of the Phase I Development would be ***less than significant with mitigation***.

SB 375 and Plan Bay Area

Climate protection and transportation system effectiveness are two of seven goals addressed in MTC's Plan Bay Area. Plan Bay Area provides a long-range framework to minimize transportation impacts on the environment, improve regional air quality, protect natural resources, and reduce GHG emissions. The plan supports smart growth principles, promotes infill development, and proactively links land use, air quality, and transportation needs in the region. Plan Bay Area is consistent with SB 375, which requires MTC to adopt an SCS that outlines policies to reduce per service population GHG emissions from automobiles and light trucks. The SCS policies include a mix of strategies that encourage compact growth patterns, mixed-use design, alternative transportation, transit, mobility and access, network expansion, and transportation investment.

Implementation of the SCS is intended improve the efficiency of the transportation system and achieve a variety of land use types throughout the Bay Area that meet market demands in a balanced and sustainable manner. The Project is built around the concept of sustainability. Mixed-use development would be promoted, and green-building and transit-oriented development would be encouraged, as would energy efficiency, water conservation, and waste reduction.

The Project (which includes the Phase I Development) would allow development that helps accommodate forecasted growth within the Project Site. Consistent with MTC goals, the Project would promote a mixed-use, transit/pedestrian/bicycle-friendly environment. The land use design, transportation network efficiency improvements, and transit priority enhancements would help reduce vehicle trips and support alternative transportation. The Specific Plan policies (e.g., Policies 4-1, 4-3, 4-6, and 3-1) would also encourage active transportation by providing safer pedestrian crossings, a connected bicycle network, and improved streetscapes. Other improvements would include striping bicycle lanes, increasing bicycle parking availability, installing pedestrian-oriented lighting and landscaping, and creating high-visibility crosswalks and pedestrian refuges. These policies would support alternative transportation within the Project Site, which could help reduce per service population GHG emissions from passenger vehicles consistent with Plan Bay Area. Thus, the Project would be consistent with the goals of SB 375 and Plan Bay Area, and this impact would be ***less than significant***.

Consistency with Other State Regulations

As discussed above, systemic changes will be required at the State level to achieve California's future GHG reduction goals. Regulations, such as future amendments to the LCFS and future updates to the State's Title 24 standards and implementation of the State's SLCP Reduction Strategy, including forthcoming regulations for composting and organics diversion, will be necessary to attain the magnitude of reductions required for the State's goals. The Project (which includes the Phase I Development) would be required to comply with these regulations in new construction (in the case of updated Title 24 standards), or would be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive due to statewide compliance with future low carbon fuel standard amendments and increasingly stringent RPS). Thus, for the foreseeable future, the Specific Plan would not conflict with any other State-level regulations pertaining to GHGs in the post-2020 era and this impact would be ***less than significant***.

Mitigation Measures

Implementation of **Mitigation Measures GHG-1, GHG-2, GHG-3** and **TRA-1**, discussed above under Impact GHG-1, would reduce the Project (other than the Phase I Development) impact associated with consistency with GHG plans to a less-than-significant level. This impact would be ***less than significant with mitigation.***

Implementation of **Mitigation Measures GHG-1** and **TRA-2,** discussed above under Impact GHG-1, would reduce the Phase I Development impact associated with consistency with GHG plans to a less-than-significant level. This impact would be ***less than significant with mitigation.***

3.4.3 Cumulative Impacts

Climate change is a global problem and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors), which are primarily pollutants of regional and local concern. Given the long atmospheric lifetimes of GHGs, GHGs emitted by many sources worldwide accumulate in the atmosphere. No single emitter of GHGs is large enough to trigger global climate change on its own. Rather, climate change is the result of the individual contributions of countless past, present, and future sources. Thus, GHG impacts are inherently cumulative, and the analysis above is inclusive of cumulative impacts.

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3.5 Hydrology and Water Quality

This section describes the environmental and regulatory setting for hydrology and water quality in the City of San Bruno as it pertains to the Project. It also describes the hydrology and water quality impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ EIR, the Project comprises the Specific Plan and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described. Information in this section is based on the Hydrology and Water Quality Evaluation for the Bayhill Specific Plan and the YouTube Phase I Office Development Memorandum (HWQE) prepared March 6, 2020 (Appendix 3.5-1) and the March 13, 2020 Revised Groundwater Assessment in Support of Bayhill Specific Plan Environmental Impact Report (Appendix 3.5-2).

No questions or concerns related to hydrology and water quality were raised in the Notice of Preparation (NOP) or revised NOP comments.

3.5.1 Existing Conditions

3.5.1.1 Regulatory Setting

Federal

Clean Water Act

The federal Clean Water Act (CWA) was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. The CWA directs states to establish water quality standards for all "waters of the United States" and to review and update such standards on a triennial basis.

The U.S. Environmental Protection Agency (EPA) has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) program (discussed below), to the State Water Resources Control Board (State Water Board) and the Regional Water Quality Control Boards (Regional Water Boards). The State Water Board establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and State water quality statutes and regulations. The Regional Water Boards develop and implement water quality control plans (basin plans) that identify the beneficial uses of surface and ground waters, water quality characteristics, and water quality problems.

Section 303(d) and Total Maximum Daily Loads. The CWA contains two strategies for managing water quality. One is a technology-based approach that includes requirements to maintain a minimum level of pollutant management using the best available technology (BAT). The other is a water quality-based approach that relies on evaluating the condition of surface waters and setting limitations on the amount of pollution that the water can be exposed to without adversely affecting the beneficial uses of those waters. Section 303(d) of the CWA bridges these two strategies. Section 303(d) requires that the states make a list of waters that are not attaining standards after the technology-based limits are put into place. For waters on this list (and where the EPA administrator deems they are appropriate), the states are to develop total maximum daily loads (TMDLs). TMDLs are established at the level necessary to implement the applicable water quality standards. The CWA does not expressly require the implementation of TMDLs. However, federal regulations require that an implementation plan be developed along with the TMDL and Sections 303(d), and 303(e), and their implementing regulations require that approved TMDLs be incorporated into basin plans. EPA has established regulations (40 Code of Federal Regulations [CFR] 122) that require that NPDES permits be revised to be consistent with any approved TMDL. A mercury TMDL has been established for the San Francisco Bay (Bay) and approved by the State Water Board (Resolution 2007-0045). TMDLs for the other constituents that contribute to impairment are scheduled to be completed by 2021.

Section 404 Dredge/Fill Permitting. The discharge of dredged or fill material into waters of the United States is subject to permitting specified under Section 404 (Discharges of Dredge or Fill Material) of the CWA. Section 404 of the CWA regulates placement of fill materials into the waters of the United States. Section 404 permits are administered by the U.S. Army Corps of Engineers (USACE).

Section 401 Water Quality Certification. Section 401 of the CWA requires that an applicant pursuing a federal permit to conduct an activity that may result in a discharge of a pollutant obtain a Water Quality Certification (or waiver). A Water Quality Certification requires the evaluation of water quality considerations associated with dredging or placement of fill materials into waters of the United States. Water Quality Certifications are issued by one of the nine geographically separated Regional Water Boards in California. Under the CWA, the Regional Water Board must issue or waive a Section 401 Water Quality Certification for a project to be permitted under CWA Section 404.

Section 402—National Pollutant Discharge Elimination System. The 1972 amendments to the federal Water Pollution Control Act established the NPDES permit program to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the CWA created a new section of the CWA devoted to stormwater permitting (Section 402[p]). EPA has granted the State of California (the State Water Board and Regional Water Boards) primacy in administering and enforcing the provisions of CWA and NPDES. NPDES is the primary federal program that regulates point-source and nonpoint-source discharges to waters of the United States.

NPDES General Permit for Construction Activities. Most construction activities that disturb 1 acre of land or more are required to obtain coverage under the NPDES General Permit for Construction Activities (Construction General Permit). The State Water Board has issued a statewide Construction General Permit (Order No. 2009-0009-DWQ, NPDES No. CAR000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ), adopted September 2, 2009. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least 1 acre of total land area. The Construction General Permit requires the applicant to file a notice of intent (NOI) to discharge stormwater and to prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP includes a site map and a description of proposed construction activities, along with a demonstration of compliance with relevant local ordinances and regulations, and an overview of the best management practices (BMPs) that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Permittees are further required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants.

NPDES General Municipal Stormwater Permit. CWA Section 402 mandates permits for municipal stormwater discharges, which are regulated under the NPDES General Permit for Municipal Separate Storm Sewer Systems (MS4) (MS4 Permit). MS4 Permits require that cities and counties develop and implement programs and measures to reduce the discharge of pollutants in stormwater discharges to the maximum extent possible, including management practices, control techniques, system design and engineering methods, and other measures as appropriate. As part of permit compliance, these permit holders have created stormwater management plans for their respective locations. These plans outline the requirements for municipal operations, industrial and commercial businesses, construction sites, and planning and land development. These requirements may include multiple measures to control pollutants in stormwater discharge. During implementation of specific projects under the program, project applicants will be required to follow the guidance contained in the stormwater management plans as defined by the permit holder in that location. The discharge of stormwater runoff from the MS4 in San Mateo County are permitted under the San Francisco Bay MRP (Order No. R2-2015-0049; NPDES Permit No. CAS612008), which is discussed further below.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) is responsible for determining, based on USACE studies, flood elevations and floodplain boundaries. FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRMs), which are used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including the 100-year floodplain. FEMA allows non-residential development in the floodplain; however, construction activities are restricted within the flood hazard areas, depending on the potential for flooding within each area.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is established and implemented by the State Water Board and nine Regional Water Boards. Waters of the State are defined more broadly than “waters of the United States;” they are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. This includes waters in both natural and artificial channels. The act requires projects that are discharging, or proposing to discharge, wastes that could affect the quality of the State’s water to file a waste discharge report with the appropriate Regional Water Board. The Porter-Cologne Act also requires that the State Water Board or a Regional Water Board adopt basin plans for the protection of water quality. The *San Francisco Bay Basin (Region 2) Water Quality Control Plan* (Basin Plan) specifies region-wide and water body–specific beneficial uses and sets numeric and narrative water quality objectives for several substances and parameters in numerous surface waters in its region (San Francisco Bay Regional Water Quality Control Board 2017). The Project lies within the jurisdiction of the San Francisco Bay Regional Water Board. The Basin Plan was last updated in 2017(San Francisco Bay Regional Water Quality Control Board 2017). Beneficial uses, water quality objectives, and Section 303(d)-listed impairments are described for the Project area below in the *Surface Water Quality* section.

The Basin Plan also establishes beneficial water uses for groundwater basins within the region. The South Westside Groundwater Basin (known as the Westside D groundwater basin in the Basin Plan) underlies the Project site and is listed in the Basin Plan as providing existing beneficial uses that include municipal and domestic water supply, industrial process water supply, and industrial service water supply and potential beneficial uses that include agricultural water supply. The basin names, such as Westside A, Westside B, etc., are informal names assigned by the Water Board to preserve the beneficial use designations in the 1995 Basin Plan and do not represent sub-basins identified by the Department of Water Resources.

Local

San Francisco Bay Municipal Regional Stormwater Permit

The San Francisco Bay Regional Water Board issued the most recent MS4 Phase I San Francisco Bay Region Municipal Regional Stormwater NPDES Permit No. CAS029718 (Order No. R2-2015-0049 NPDES Permit No. CAS612008) (San Francisco Bay MRP) on November 19, 2015. The City of San Bruno is a Permittee under the San Francisco Bay MRP for the discharge of stormwater runoff from the MS4s. The current San Francisco Bay MRP expires on December 31, 2020. The following requirements apply to all projects regardless of size, as appropriate:

- Construction-phase BMPs
- Post-construction site design measures to maximize infiltration in pervious areas
- Post-construction source control measures to help keep pollutants out of stormwater

The following requirements listed below apply to certain projects based on project size and/or location:

- Post-construction stormwater treatment measures are required for most projects with 10,000 square feet or more of impervious surface
- Post-construction stormwater quantity (flow-peak, volume, and duration) controls are required for projects in certain locations with 1 acre or more of impervious surface, in accordance with local Hydromodification Management Plans (HMPs)[1]

Provision C.3 of the San Francisco Bay MRP requires new development and redevelopment source control, site design, and stormwater treatment measures to address pollutant discharges in stormwater runoff. This goal is accomplished through low-impact development (LID) techniques, including infiltration and biotreatment. The current MRP regulates stormwater treatment for new development, but recognizes that certain urban infill, higher density and transit-oriented developments have some inherent environmental benefits and challenges. These types of projects, known as "Special Projects," are allowed to use specific types of non-LID treatment measures to treat a certain percentage of the site's runoff.

The Project is a new development project, and therefore would be considered a Regulated Project under the San Francisco Bay MRP. More specifically, the Project falls within the "Other Redevelopment Projects" category within the C.3 Provision, which is defined as "any land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface area on a site on which some past development has occurred." These projects include those that create or replace 10,000 square feet or more of impervious surface, which applies to the Project. To meet the Provision C.3 requirements, projects must include appropriate site design measures, pollutant source controls and treatment control measures.

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is a partnership of the City/County Association of Governments (C/CAG), each incorporated city and town in the county, and the County of San Mateo, which share a common NPDES permit. The Project would be required to comply with the San Francisco Bay MRP Provision C.3 Stormwater Technical Guidance. Municipalities apply the

[1] More information on hydromodification is provided below in the SMCWPPP section.

Maximum Extent Practicable standard, including standard stormwater conditions of approval for projects that receive development permits. The SMCWPPP prepared a C.3 Stormwater Technical Guidance dated October 2014 to assist projects in designing appropriate post-construction stormwater controls to meet local jurisdictional requirements and the requirements of the San Francisco Bay MRP. The C.3 and C.6 Development Review Checklist is required for all projects requiring a Planning or Building permit that would result in any new areas of impervious surface. SMCWPPP Provision C.3.g (Hydromodification Control Requirements) requires that certain new development projects manage increases in stormwater runoff flow and volume. Permit Permittees, including the City of San Bruno, have developed maps showing where HM controls are required. The Project is exempt from SMCWPPP Permit Provision C.3.g because the site is outside the limits of hydromodification areas.

San Francisco Bay Regional Water Board General Permit Order No. R2-2017-0048

The San Francisco Bay Regional Water Board issued general waste discharge requirements for the discharge or reclamation of extracted and treated groundwater resulting from the cleanup of groundwater polluted by volatile organic compounds (VOCs), fuel leaks, fuel additives, and other related wastes (Order No. R2-2017-0048; NPDES Permit No. CAG912002) which went into effect on January 1, 2019. This Order regulates the discharge or reclamation (or both discharge and reclamation) of extracted and treated groundwater resulting from the cleanup of groundwater at active or closed cleanup sites, such as fuel stations or construction sites.

South Westside Basin Groundwater Management Plan

The South Westside Basin Groundwater Management Plan (GWMP) was completed in July 2012 as a joint effort between Cal Water, the SFPUC, and the Cities of Daly City and San Bruno that superseded prior groundwater management and planning efforts. The GWMP was prepared pursuant to Assembly Bill 3030 (AB 3030; codified in CWC §10750 et seq.). The GWMP ensures a sustainable, high quality, reliable water supply at a fair price for beneficial uses achieved through local groundwater management. The GWMP provides steps for monitoring water quality and quantity in the South Westside Basin. Each groundwater well identified in the GWMP has defined triggers for overdraft, seawater intrusion, various water quality measures, and has identified two levels of trigger thresholds for each groundwater well based on historical water levels, and actions to address the trigger that is met. The GWMP includes the following elements:

- Groundwater Storage and Quality Monitoring
- Control of Saltwater Intrusion
- Conjunctive Use
- Recycled Water
- Source Water Protection

The GWMP indicates that the basin is not in overdraft and the City can pump at a rate of 2.1 MGD on a long-term basis.

Regional Groundwater Storage and Recovery Project

In December 2014, the Regional Groundwater Storage and Recovery (GSR) Project operating agreement was signed to ensure long-term management and sustainability of the South Westside Groundwater Basin through a strategic conjunctive use partnership. The partnership with the City of San Bruno, SFPUC, California Water Service (serving South San Francisco and Colma), and the City of Daly City allows the agencies to operate the basin jointly under two supply modes that vary according to hydrologic conditions. Refer to Section 3.11, *Utilities and Service Systems*, of this EIR, for additional discussion of the Regional GSR Project.

City of San Bruno General Plan

The City of San Bruno's current General Plan, adopted in 2009, includes goals and policies associated with hydrology and water quality (City of San Bruno 2009a). The City of San Bruno General Plan has identified policies from Environmental Resources and Conservation, and Health and Safety element, related to hydrology and water quality. These goals and policies include continuing to improve the quality of surface and groundwater, stormwater, drainage, and minimizing flooding.

San Mateo County Flood Control District

The San Mateo County Flood Control District is a Countywide Special District created to provide a mechanism to finance flood control projects. There are currently three active flood control zones: Colma Creek, San Bruno Creek, and San Francisquito Creek. San Mateo County is currently in the process of separating its' countywide Flood Control District from management by San Mateo County Public Works to function as an independent District with a seven-member Board of Directors. The Independent District, Flood and Sea Level Rise Resiliency District, would plan and implement measures to protect infrastructure on the bayside and coastside from predicted 2100 sea level rise.

3.5.1.2 Environmental Setting

This section provides a discussion of the existing conditions related to hydrology and water quality on the Project Site.

Regional Setting

Surface Water

Six watersheds drain the City of San Bruno, with the primary drainage basins being Crystal Springs Creek, Huntington Creek, and San Bruno Creek encompassing 80 percent of San Bruno's land area. The watersheds flow west to east, with riparian woodlands in the upper reaches and willow riparian habitat in the lower, slower-moving reaches. The northern portion of San Bruno drains toward South San Francisco into the Colma Creek watershed. The discharge point for the primary watersheds is the San Bruno Channel located in the vicinity of the South San Francisco-San Bruno Water Quality Control Plant just north of the San Francisco International Airport. Ultimately, all the watersheds drain to the Lower San Francisco Bay.

The Project is within the San Bruno Creek Watershed within the larger Colma Creek-Frontal San Francisco Bay Estuaries and San Mateo Creek-Frontal San Francisco Bay Estuaries Watersheds. The San Mateo Creek-Frontal San Francisco Bay Estuaries Watershed encompasses approximately 133 square miles (ESRI ArcGIS n.d.). San Bruno Creek watershed (also known as San Bruno Creek Watershed A) is the largest of the city's six watersheds, encompassing an area of two square miles. The watershed contains mostly urbanized land, sloping steeply toward the east. Headwaters of San Bruno Creek are in the coastal range at the boundary with the City of Pacifica. San Bruno Creek is no longer a natural creek, but is composed of a series of channels, pipes, and detention basins (City of San Bruno 2009b). San Bruno Creek is 13.8 miles long, with 9.1 miles of underground culverts or storm drains and 3.9 miles of engineered channel, leaving only 0.8 miles of unmodified channel (SMCWPPP) (San Mateo Countywide Water Pollution Prevention Program 2007).

The highly modified, intermittent channels of the city's drainage basins are part of the storm drain system. San Bruno's storm drain system conveys water into San Francisco Bay. The system is a series of pipes, trenches, culverts, detention basins, and open channels based on the natural drainage pattern and topography. Due to steep slopes in the western portion of San Bruno and the more gradual eastward slope east of I-280, a gravity-flow system is used. Water is primarily carried along a course that was formerly San Bruno Creek.

Groundwater

The project is within the Westside Groundwater Basin. The Westside Groundwater Basin covers an area of approximately 25,400 acres. It is bound to the north by the Lobos Groundwater Basin, the San Bruno Mountains and San Francisco Bay to the east, high bedrock separates the basin from the San Mateo Plain Subbasin to the south, and the San Andreas Fault and Pacific Ocean bound the basin to the west. The basin opens to the Pacific Ocean on the northwest and San Francisco Bay on the southeast (Department of Water Resources 2006).

Recharge in the Westside Groundwater Basin include infiltration of rainfall and irrigation water, and leakage from water and sewer pipes. The period of 1987-1992 showed declining water levels, likely the result of a concurrent drought during this period (Department of Water Resources 2006). However, recent groundwater monitoring indicated that increased or stable water levels were observed in shallow, primary production, and deep aquifers throughout the Westside Basin. Increased aquifer storage was also observed (San Francisco Public Utilities Commission 2018). Groundwater used for water supply within the Westside Groundwater Basin is generally pumped from the Merced and Colma formations (EKI Environment and Water 2019).

The Westside Groundwater Basin is subdivided for management purposes into northern and southern portions, separated by the San Francisco and San Mateo county lines. The county-line boundary between the "North Westside Basin" and the "South Westside Basin" serves as a jurisdictional distribution of groundwater pumping and does not have hydrogeological significance. No geologic features restricts groundwater flow between the northern and southern parts of the basin (San Francisco Public Utilities Commission 2016). Groundwater pumping has historically provided up to 50% of local water supply in the South Westside Basin for the communities of San Bruno, Daly City, and South San Francisco, although current usage is significantly less as a proportion. The Westside Groundwater Basin is not adjudicated and, in its recent evaluation of California groundwater basins, DWR determined that the Westside Groundwater Basin was not in overdraft and was a low priority basin. Recent evaluations by others have also found that current pumping is estimated to be within the basin's safe yield (EKI Environment and Water 2019; WRIME 2012).

Water Quality

The Basin Plan specifies beneficial uses that apply to water bodies with potential to be affected by the Project, as shown in Table 3.5-1 (San Francisco Bay Regional Water Quality Control Board 2017).

Table 3.5-1. Beneficial Uses for Surface Waters of Water Bodies with Potential to Be Affected by the Project

Water Body	Designated Beneficial Uses

Lower San Francisco Bay	IND; COMM; SHELL; EST; MIGR; RARE; SPAWN; WILD; REC1; REC2; NAV
Key:	
COMM: Commercial And Sport Fishing	EST: ESTUARINE HABITAT
	MIGR: Fish Migration
IND: Industrial Service Supply	RARE: Preservation of Rare and Endangered Species
NAV: Navigation	SPWN: Fish Spawning
SHELL: Shellfish Harvesting	REC1: Water Contact Recreation
WILD: Wildlife Habitat	REC2: Noncontact Water Recreation

Source: San Francisco Bay Regional Water Quality Control Board. 2017. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). Originally published January 18, 2007. Last updated in 2017.

The 303(d)-listed impairments for the Lower San Francisco Bay are shown in Table 3.5-2 and are based on the 2014/2016 California Integrated Report (California State Water Resources Control Board 2018). San Bruno Creek has no listed 303(d) impairments by the State Water Board.

Table 3.5-2. Water Quality Impairments within the Project Alignment

Water Body	Listed Impairments per 2006 303(d) List	Potential Sources	EPA TMDL Report Completion
Lower San Francisco Bay	Chlordane	Source Unknown	Est. 2013
	DDT	Source Unknown	Est. 2013
	Dieldrin	Source Unknown	Est. 2013
	Dioxin Compounds (Including 2,3,7,8-TCDD)	Source Unknown	Est. 2019
	Furan Compounds	Source Unknown	Est. 2019
	Invasive Species	Source Unknown	Est. 2019
	Mercury	Source Unknown	02/12/2008
	PCBs (including dioxin like)	Source Unknown	03/29/2010
	Trash	Source Unknown	Est. 2021

Key:
EPA = U.S. Environmental Protection Agency
TMDL = total maximum daily load
Est. = estimated completion date
DDT = Dichlorodiphenyltrichloroethane
PCBs = Polychlorinated biphenyls
Source: California State Water Resources Control Board. 2018. *2014/2016 Integrated Report (Clean Water Act Section 303(d) List/305(b) Report)—Statewide*. San Francisco Bay Regional Water Quality Control Board. USEPA approved: April 6, 2018. Available: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml. Accessed: August 5, 2019.

The Lower San Francisco Bay is designated as impaired for mercury. Fish tissue collected from San Francisco Bay often contains relatively high mercury concentrations. Sources of mercury include runoff from historic mines, urban runoff, wastewater discharges, atmospheric deposition, and resuspension of historic deposits of mercury-laden sediment already in San Francisco Bay. Most of the historic mercury deposits date back to the Gold Rush of the 1800's, when mercury was mined throughout the Coastal Range and used in the Sierra Nevada to extract gold. The largest source of mercury is the Central Valley, where rivers carry mercury from remote regions to San Francisco Bay. The U.S.EPA approved a Basin Plan amendment incorporating a TMDL for mercury in San Francisco Bay and an implementation plan to achieve the TMDL and became effective on November 7, 2007.

The Lower San Francisco Bay is also designated as impaired for trash. Provision C.10 of the San Francisco Bay MRP contains requirements for trash load reductions. Trash load reduction control actions must be implemented to meet the goal of 100 percent trash load reduction or no adverse impact to receiving waters from trash by July 1, 2022. Trash is considered a threat to aquatic life, which relates to impairment of beneficial uses, including Noncontact Water Recreation (REC2), as designated for the Lower San Francisco Bay (Table 3.5-1). The Project is in an area designated as moderate trash generation.

Groundwater

Most dissolved constituents in groundwater meet U.S.EPA guidelines, however nitrate-nitrogen concentrations in the groundwater commonly exceed the primary maximum contaminant level. In addition, natural sources of total dissolved solids to groundwater in the San Francisco Bay, including the Westside Groundwater Basin, include saltwater intrusion from the Bay as well as interaction between recharge water and aquifer materials derived from marine or estuarine sediments. Two areas monitored for seawater intrusion, the Pacific Coast and the Bay Coast, contain several monitoring wells in various aquifers in the Westside Basin known as the coastal and bay side monitoring networks, respectively. Groundwater is monitored as part of a semi-annual monitoring program. Existing beneficial uses of the Westside groundwater basin include municipal and domestic water supply, industrial process water supply, and industrial service water supply; and potential beneficial uses include agricultural water supply.

Flooding

There are three active flood control zones in the San Mateo County Flood Control District: Colma Creek, San Bruno Creek, and San Francisquito Creek. Both Colma and San Bruno Creek zones contain parts of the City of San Bruno. As shown in Figure 3.5-1, the City of San Bruno contains areas designated by Federal Emergency Management Agency (FEMA) as 100-year floodplains to the east of the Project Site, however the Project Site is not within the floodplain. The City has also identified several areas which occasionally flood due to combined high tides and heavy rain. The City's storm drain system does not operate effectively at times of high tide combined with heavy rain. Inadequate storm drains and low elevation, which subjects the areas to tidal influences, results in flooding.

Project Site

Surface Water

The Project Site includes a 92.2-acre area which is bounded by Interstate 380 to the north, El Camino Real to the east, San Bruno Ave to the south and Interstate 280 to the west. Approximately 80 percent of the total surface area of the Project Site consists of impervious surfaces. Impervious surfaces on the Project Site include buildings for office and retail/commercial uses, a hotel and associated surface parking lots, and streets. Small landscaped areas are present with the only undeveloped land located in the northern portion of the Project Site. The land surface elevation is the greatest on the western side of the Project Site (approximately 160 feet mean sea level, ft msl) and decreases across the Project Site, with the lowest elevation (approximately 40 ft msl) on the eastern side of the site. San Bruno Creek and Lower San Francisco Bay are less than 1 and 2 miles east of the Project Site, respectively. Colma Creek is less than 2 miles north of the Project Site.

The Project Site includes two localized watersheds or catchment areas consisting of 26.5 acres and 71.5 acres west of and east of Cherry Avenue, respectively. The land area west of Cherry Avenue drains to the storm drain system in Cherry Avenue that extends to the north of the Project Site and Interstate 380 where it ties into the 72-inch diameter main trunk line for the San Bruno Creek Watershed, located on the eastern portion of the site near Elm Avenue. The trunk line extends back into the Project Site at the northeast corner. The portion of the Project Site east of Cherry Avenue between Cherry Avenue and El Camino Real flows to the east and is collected by stormwater facilities that ties into a 72-inch storm drain on the eastern side of the Project Site near Elm Avenue and El Camino Real.

The Project Site contains storm drain pipes up to 48 inches in diameter (Kimley Horn 2020). The area west of Cherry Avenue drains to a pipeline in Cherry Avenue which flows to the north and ultimately connects to a 72-inch main trunk line. The area east of Cherry Avenue drains into a collection system of pipes in the roadways including a 24-inch diameter pipe in Grundy Lane and a pipe collection system in Bayhill Drive that ranges in size and increases to a 48-inch diameter pipe at its connection to the 72-inch main trunk line at Elm Avenue. East of Elm Avenue, the 72- inch line continues easterly and southerly until it exits the Project Site near El Camino Real. The pipe information on Cherry Avenue, Bayhill Drive and at the eastern boundary of the Project Site, south of Bayhill Drive were obtained from available data such as the City's database and Phase I Development plans but were not field verified for size, slope, capacity and condition.

Figure 3.5-1
FEMA Flood Zones within the Project Area

All of the pipe networks within the Project Site connect to a 72-inch diameter trunk line located on the eastern portion of the Planning Area that serves as the backbone to the City's 1,415-acre "Watershed A" pipe network identified in the City of San Bruno Storm Drain Master Plan. Storm drain facilities within Watershed A included underground pipes, boxes, and channels (Kimley Horn 2020). Stormwater generally drains eastward across the Project Site, following the gradual sloping gradient and exiting the site through a 72-inch pipeline sloping towards the box culvert within El Camino Real adjacent to the Project Site's eastern boundary. The City's Storm Drain Master Plan identifies six sites within Watershed A or downstream of the Project Site as stormwater "problem areas." These problem areas are located in Grundy Lane, Bayhill Drive, El Camino Real, Masson Avenue, Mills Avenue, and at the intersection of Huntington and San Mateo Avenue, though actual capacity exceedances are most severe downstream (east) of the Project Site. To resolve Watershed A drainage deficiencies, the Storm Drain Master Plan identifies numerous potential stormwater infrastructure improvements throughout the area, including installation of a new 72-inch stormwater pipeline within the Project Site, or parallel 72-inch pipe installations (Kimley Horn. 2020). To date, no improvements have been constructed to address these deficiencies and funding has not been identified.

Groundwater

The project is within the Westside Groundwater Basin. Groundwater elevation at the Project Site is greatest on the western side of the Project Site (approximately 110 ft msl) and gradually gets shallower on the eastern side of the Site (approximately 8 ft msl) (EKI Environment and Water 2019).

Water Quality

Water quality in a typical surface water body is influenced by processes and activities that take place within the watershed. The quality of the stormwater runoff from the Project Site and surrounding development is typical of urban watersheds where water quality is affected primarily by discharges from both point and nonpoint sources. Point-source discharges are discharges that one can point to as known sources of pollutants, while nonpoint source discharges generally result from diffuse sources, such as land runoff, precipitation, or seepage. Point and nonpoint sources include outfalls, winter storms, overland flow, exposed soil, roofs, parking lots, and streets. Water quality in the vicinity of the Project Site is directly affected by stormwater runoff from adjacent streets and properties that deliver fertilizers, pesticides, automobile and traffic pollutants (e.g., oil, grease, metals), sediment with associated pollutants from soil erosion, trash, and other pollutants. Beneficial uses and water quality impairments that apply to water bodies with the potential to be affected by the Project Site are discussed above under the regional setting.

As shown in Figure 3.5-2, closed leaking underground storage tank (LUST) sites are associated with current or formerly contaminated sites located near or within the Project Site. In addition, the "Bayhill 7 Facility" located at 999-1001 Bayhill Drive has a history of contamination including residual petroleum hydrocarbons in soil and groundwater, which were deemed not a risk to the environment, and an elevator hydraulic fluid leak. Nonetheless, the Bayhill 7 Facility was closed under the San Mateo County Health Department Groundwater Protection Program (GPP) in 2009 with the condition that any proposed change in land use or proposed soil or groundwater removal activity be reviewed by the GPP. Present conditions at the Bayhill 7 Facility are unknown (EKI 2019).

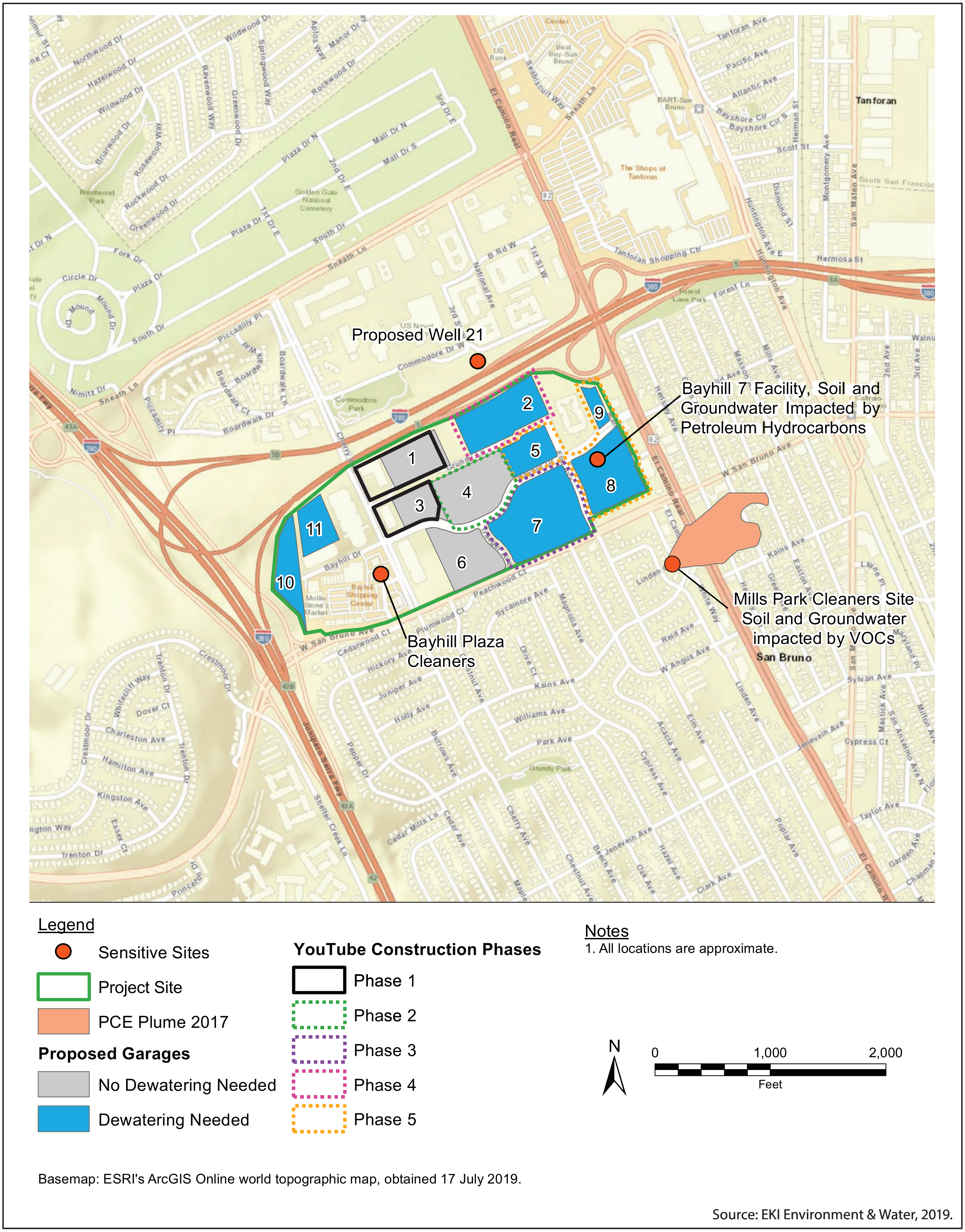

Figure 3.5-2
Proposed Dewatering Locations and Areas of Potential Groundwater Contamination

ICF Graphics ... 00389.17 (10/21/20) AB

Additionally, beneath the Mills Park Cleaners site to the east/southeast and within 450 feet of the planned Phase 5 construction footprint volatile organic carbons (VOCs) are present in groundwater. The primary potential contaminant of concern is tetrachloroethylene (PCE). An active dry cleaner is located immediately upgradient of the planned Phase I Site. There are no environmental concerns associated with this dry-cleaning operation, although no groundwater investigations have been conducted specific to this site.

Flooding

As shown in Figure 3.5-1, the Project Site is outside of the 100-year floodplain, within FEMA Zone X. FEMA Zone X is an area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level (Federal Emergency Management Agency 2019).

Phase I Site

The 8. 12-acre Phase I Site is developed with two office buildings. The northern parcel at 1000 Cherry Avenue contains a 94,465-square foot, 3-story building with surface parking and associated landscaped elements. The southern parcel at 900 Cherry Avenue contains a 102,252-square foot, 6-story building surface and surface parking with associated landscaped elements. Landscaped areas are interspersed throughout the parking areas and along Interstate 380 to the north and Cherry Avenue to the west.

Existing storm drain pipes serving the Phase I Site include pipes ranging from 12 inches to 48 inches in diameter located in the streets and parking lots along Grundy Lane and Bayhill Drive between Cherry Avenue and Elm Avenue. The primary stormwater collection systems for the Phase I Site are located in Bayhill Drive and Grundy Lane with connections to the 72-inch main trunk line at Elm Avenue. The Grundy Lane pipe is a 24-inch at its connection point and the Bayhill Drive pipeline is a 48-inch pipe at its connection point (Kimley Horn 2020).

The majority of the Phase I Site is generally flat with a slight downward slope to the east-northeast. The Phase I Site is within the Westside Groundwater Basin. The land surface elevation ranges from approximately 105 ft msl to 95 ft msl. The inferred groundwater elevation below the Phase I site ranges from approximately 55 ft msl to 40 ft msl, with seasonal variations in the water table level (EKI Environment and Water 2019). Water quality of the Phase I Site is similar to the water quality discussed above under the Regional and Project Site Settings. The Phase I Site is outside of the 100-year floodplain, within FEMA Zone X, an area of minimal flood hazard.

3.5.2 Environmental Impacts

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

3.5.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below.

- Violation of any water quality standards or waste discharge requirements or other substantial degradation of surface or ground water quality;
- Substantial decrease in groundwater supplies or substantial interference with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:
  - (i) result in substantial erosion or siltation onsite or offsite.
  - (ii) substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite.
  - (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - (iv) impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, release of pollutants due to project inundation; or
- Conflict with or obstructed implementation of a water quality control plan or sustainable groundwater management plan.

3.5.2.2 Methodology and Approach

All Project elements were analyzed by comparing baseline conditions, as described in the *Environmental Setting*, to conditions during construction and/or operations of the Project. The analysis focuses on issues related to surface hydrology, groundwater supply, surface and groundwater quality, and flood hazards. The key construction-related impacts were identified and evaluated qualitatively based on the physical characteristics of the Project and the magnitude, intensity, location, and duration of activities.

- **Surface Water Hydrology.** The surface water hydrology impact analysis considered changes in water bodies, impervious surfaces, and drainage patterns. Information on the change in impervious surface, runoff quantities, and drainage patterns was provided by the HWQE. The analysis of changes of on-site water bodies involved a comparison of existing on-site hydrological conditions and new/modified conditions proposed as part of the Project, which were provided in the HWQE (Kimley Horn 2020) for the Project, and other sources.
- **Groundwater Hydrology.** Potential impacts on groundwater supply were analyzed using information from publicly available publications and site-specific technical reports, including the Groundwater Assessment Technical Memorandum for the Project. The potential for Project actions, including construction dewatering, and potentially affecting water level drawdown, was evaluated. Impacts of the Project on groundwater was analyzed using the site-specific Groundwater Assessment Technical Memorandum.

- **Surface and Groundwater Quality.** Impacts of the Project on surface water and groundwater quality were analyzed using information on potential existing sources of pollution generated by activities, such as vehicle use and parking, building maintenance, pesticide use, trash, and material storage and site-specific technical reports, including the Groundwater Assessment Technical Memorandum. These impacts were then compared to potential Project-related sources of pollution during Project construction, such as sediments and other construction materials, and during Project operation, such as vehicle use, building maintenance, pesticide use, trash, and storage of hazardous materials.
- **Flood Hazards.** The impact analysis for flood risk was conducted using FEMA mapping to determine the existing flood zone and information from the HWQE regarding changes in the drainage system and layout that may affect flood risk.

Buildout Scenario

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.56 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, though the amount of office permitted would decrease based on the amount of housing permitted, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multi-family residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed.

A project can introduce hydrology and water quality impacts both directly (i.e., through the increase of impervious cover) and indirectly (i.e., through introduced pollutants from automobile use). Both the Maximum Office Scenario and Maximum Housing Scenario would generate direct and indirect hydrology and water quality impacts. Increased impervious surfaces generated by the Project would convey water and mobilize potential contaminated stormwater to the City of San Bruno's stormwater system and into receiving surface waters.

Impacts of the two buildout scenarios for many hydrology and water quality resources would be the same, and impacts were evaluated holistically. However, the components of the hydrology analysis that are based on water use (Impact HWQ-2) assume the Maximum Housing Scenario represents the worst-case scenario because it resulted in a higher level of anticipated water use than the Maximum Office Scenario, as discussed in Section 3.11, *Utilities and Service Systems*, of this EIR.

3.5.2.3 Impacts Not Evaluated in Detail

Risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.

The Project Site is not within a planned tsunami inundation area as depicted on the Tsunami Inundation Map for Emergency Planning prepared by the California Emergency Management Agency and California Geological Survey. Therefore, the Project is not subject to inundation by a tsunami. There are no reservoirs adjacent to the Project Site; therefore, the Project would not be prone to inundation by a seiche. The City of San Bruno contains areas designated as FEMA 100-year floodplain to the east of the Project Site, however the Project Site is not within the 100-year floodplain; therefore the Project Site would not be subject to inundation by a flood.

During construction activities, stormwater BMPs would be implemented, as required by federal, county, and local policies to minimize degradation of water quality associated with stormwater runoff or construction-related pollutants. In addition, construction and maintenance activities would comply with local stormwater ordinances, stormwater requirements established by the county's MS4 requirements, and regional waste discharge requirements. Other measures in the SWPPP would include a range of stormwater control BMPs (e.g., installing silt fences, staked straw wattles, or geofabric to prevent silt runoff to storm drains or waterways). Operation would comply with the County Stormwater Management and Discharge Control Ordinance, stormwater requirements established by the county's MS4 requirements, and regional waste discharge requirements. Additional discussions and measures to reduce the risk of pollutants and flood flows are discussed under Impact HWQ-1 and Impact HWQ-3. Therefore, there would be ***no impact*** related to a risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone. This impact is not evaluated further.

3.5.2.4 Impacts and Mitigation Measures

Impact HWQ-1a. The Project would not result in the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (Project: Less Than Significant with Mitigation)

Impact HWQ-1b. The Phase I Development would not result in the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (Phase I Development: Less Than Significant with Mitigation)

Project

Construction

Surface Water

Project construction activities such as grading, stockpiling of spoil materials, and other construction-related earth-disturbing activities could result in short-term water quality impacts associated with soil erosion and subsequent sediment transport to adjacent properties, roadways, or watercourses via storm drains. Sediment transport to local drainage facilities such as drainage inlets, culverts, and storm drains could result in reduced storm flow capacity, resulting in localized ponding or flooding during storm events. Construction activities could also generate dust, settlement, litter, oil and other pollutants that could temporarily contaminate water run-off from the Project Site.

Construction activities must comply with the NPDES Construction General Permit, the Municipal Regional Permit, and City's Municipal Code, which contain standards to ensure that water quality is not degraded. As part of the Construction General Permit, standard erosion control measures and BMPs would be identified in a SWPPP and would be implemented during construction to reduce sedimentation of waterways and loss of topsoil. The SWPPP is required to be submitted before a grading permit is issued by the City of San Bruno. Compliance with the City's grading permit and the Construction General Permit would require use of BMPs to restrict soil erosion and sedimentation and restrict non-stormwater discharges from the construction site as well as release of hazardous materials. As a performance standard, BMPs to be selected would represent the best available technology that is economically achievable and best conventional pollutant control technology to reduce pollutants.

Other potential water quality impacts include chemical spills into storm drains or groundwater aquifers if proper minimization measures are not implemented. However, required BMPs would be implemented to reduce pollutants in stormwater and other nonpoint-source runoff. Measures range from source control to treatment of polluted runoff. BMPs can include watering active construction areas to control dust generation during earthmoving activities; using water sweepers to sweep streets and haul routes; and installing erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, and sandbag dykes) to prevent silt runoff to public roadways, storm drains, or waterways. During construction, Policy 5-15 would minimize runoff by requiring new development to demonstrate no net increase in runoff from development. As appropriate, disturbed soil would be revegetated as soon as possible with the appropriate selection and schedule of plants.

Excavation would result in the export of approximately 4,880,616 cubic yards of soil from the Project Site throughout the 20-year construction period. No disturbed surfaces would be left without erosion control measures in place during the rainy season, which generally occurs between October 15 and April 15. In addition to compliance with the Construction General Permit, the Project would also be required to comply with local stormwater and construction site runoff ordinances. These requirements involve development and implementation of an Erosion Control Plan specific to the construction site to minimize water quality impacts. No surface water features are within the Project area; therefore, construction would not involve dredge and fill activities.

The Project would be required to comply with the City's MRP requirements and the NPDES Construction General Permit. Post-construction measures must also meet SMCWPPP requirements. Further, a stormwater control plan is required for each development. Compliance with these requirements would ensure that construction activities do not result in a violation of water quality standards or waste discharges requirements, or otherwise result in water quality degradation. However, as discussed below, discharge of potentially contaminated dewatered groundwater could make its way into surface waters, which would impact surface water quality. Implementation of **Mitigation Measure HWQ-1** would reduce this impact.

With implementation of **Mitigation Measure HWQ-1**, construction of the Project would not result in the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality. Potential impacts on water quality from construction activities associated with the Project would be ***less than significant with mitigation***.

Groundwater Dewatering

As shown in Figure 3.5-2, dewatering is anticipated in Phases 3, 4, and 5 of YouTube buildout, and during construction of the proposed parking garages west of Cherry Avenue. Construction dewatering could result in the exposure of pollutants from prior spills or other activities and may contaminate groundwater. Therefore, groundwater quality monitoring during dewatering would be required prior to disposal, as well as water quality testing prior to disposal to ensure there are no impacts to surface water quality. Construction dewatering would not likely mobilize contaminants associated with LUST sites or other current or formerly contaminated sites located near or within the Project Site. However, as discussed under Environmental Settings above, the Bayhill 7 Facility site has a history of contamination. To protect groundwater supplies from chemical pollution, and pursuant to Policy 6-8 in the Specific Plan, development is subject to review by the GPP. During Phase 3 and Phase 4 of YouTube buildout, water level drawdown is estimated to be more than two feet at the Bayhill 7 Facility site (see Table 3.5-3). Phase 5 construction would have direct disturbance at the Bayhill 7 site and would have more extensive dewatering (see Table 3.5-3). The GPP will be notified of the planned activities associated with the Project Site redevelopment and would review potential impacts to water quality, as well as any waste discharge requirements necessary during dewatering. The Specific Plan includes Policies 6-8, and 6-18 through 6-24 to reduce groundwater impacts and dewatering impacts due to construction.

Table 3.5-3. Estimated Drawdown During Dewatering

YouTube Construction Phase	Estimated Drawdown (ft) Bayhill Plaza Cleaners	Proposed Well 21	Bayhill 7 Facility	Mills Park Cleaners
Phase I		No construction dewatering anticipated		
Phase 2		No construction dewatering anticipated		
Phase 3	0.89	0.95	2.53	1.04
Phase 4	0.77	3.65	2.12	0.53
Phase 5	1.34	3.50	43.92[a]	3.55
Additional Garages (not part of YouTube buildout)	3.85	0.57	0.31	0.10

[a] Bayhill 7 Facility is located where the proposed Garage 8 is planned. Garage 8 would need to be dewatered approximately 40 ft (i.e., the garage is proposed to be 50 ft deep and the water table is approximately 10 ft bgs). The water table is shallowest on the eastern side of the Project Site; therefore, the garages on the eastern side of the Project Site require more dewatering. The drawdown at Bayhill 7 Facility during Phase 5 is equal to the depth needed to dewater garage 8 (40 ft) and the additional drawdown due to simultaneous dewatering activities at Garages 5 and 9 (i.e., an additional 3.92 ft).

Source: EKI Environment and Water. 2020. Revised Groundwater Assessment in Support of Bayhill Specific Plan Environmental Impact Report Technical M. March 13.

Soil and groundwater at the Mills Park Cleaners Site are impacted by VOCs. The projected water level drawdown at this site ranges from 0.10 to 3.55 ft (see Table 3.5-3), with the greatest impact estimated to occur during YouTube Phase 5 construction. Over the one year of construction dewatering, the existing VOC plume could migrate almost 500 feet and reach the garage.[2] Consequently, to avoid changes in conditions the Mills Park Cleaners Site would be monitored closely during all dewatering operations. Pursuant to Policy 6-24 in the Specific Plan, dewatering water quality would be monitored and chemical analysis of contaminants such as hydrocarbons and VOCs would be determined. Required water quality

[2] The VOC plume at the Mills Park Cleaners Site is located approximately 450 feet away from Garage 8. Previous water level elevation maps for the shallow water bearing zone indicate the horizontal gradient influencing plume migration was about 0.01 and to the southeast, away from the proposed garage location. Under dewatered conditions, the flow direction reverses from the southeast to the northwest and toward the garage, and the corresponding gradient under the maximum drawdown condition increases by an order of magnitude (0.10). Using the Darcy equation and the maximum gradient (the gradient calculated using the minimum groundwater elevation at the garage excavation and the maximum groundwater elevation at the plume edge), the estimated groundwater velocity is about 1.4 ft/day. Applying the velocity for the entire year, a particle of water near the plume edge could move almost 500 feet and reach the garage. However, this time-of-travel calculation is for a particle of water and does not include natural attenuation of dissolved constituents by sediment-constituent interactions which can substantially retard plume migration. Moreover, the calculation applies the maximum gradient to the entire 12-month dewatering period; the actual gradient would decreases with time as dewatering lowers groundwater elevations in the areas that surround the excavation. The time-of-travel calculation is therefore considered very conservative, and the estimated travel distance for dissolved VOCs at the end of 12-months is probably substantially less than the distance to the garage.

permit(s) would be obtained prior to discharge of dewatering water to the storm drain. Further, Specific Plan Policy 6-22 requires all dewatering occurring during construction be held in a baker tank for testing to ensure there is no contamination prior to discharge into the storm drain system.

Although small amounts of construction-related dewatering are covered under the Construction General Permit, the San Francisco Bay Regional Water Board has regulations specific to dewatering activities that typically involve reporting and monitoring requirements. In the event of dewatering during construction activities or before dewatering to surface water via a storm drain, the contractor would obtain coverage under the NPDES Construction General Permit from the San Francisco Bay RWQCB. Coverage under the Construction General Permit typically includes dewatering activities as authorized non-stormwater discharges, provided that dischargers prove the quality of water to be adequate and not likely to affect beneficial uses. All requirements of dewatering would be met to ensure water quality is not affected.

If petroleum hydrocarbons or VOCs are not detected in dewatering water, as noted above, a Construction General Permit for Stormwater will be obtained from the State Water Board prior to discharge of dewatering water to the storm drain. Depending on the risk level determination for each phase of construction, monitoring and reporting of various water quality parameters, including pH and turbidity, may be required.

There are dewatering permit requirements in addition to those outlined in the Construction General Permit, including discharge sampling and reporting, and the Regional Water Board's Fuel and Volatile Organic Compound (VOC) General Permit (Order No. R2-2017-0048) if contaminated groundwater is encountered. In the event groundwater is encountered during construction, dewatering discharge methods would include options for discharge to surface water via a storm drain in compliance with waste discharge requirements (WDRs) to ensure that any discharges would be within the capacity of existing facilities and would not require the construction or expansion of existing facilities. WDRs also include regulations specific to dewatering activities requirements. If it is found that the groundwater does not meet water quality standards, it must either be treated as necessary prior to discharge so that all applicable water quality objectives (as designated in the Basin Plan) are met or hauled offsite instead for treatment and disposal at an appropriate waste treatment facility that is permitted to receive such water. For water to be discharged to the Bay, the contractor would be required to notify the San Francisco Bay RWQCB and comply with the board's requirements related to the quality of water and discharges.

If petroleum hydrocarbons or VOCs are detected in dewatering water, a Fuel and VOC General Permit must be obtained by the Regional Water Board prior to discharge of dewatering water to the storm drain. As required by the Permit, dewatering water must be fully characterized for a suite of contaminants of potential concern, after which treatment needs must be assessed and designed prior to permit approval. The Fuel and VOC General Permit also requires ongoing water quality monitoring, reporting, and payment of an annual fee.

The Project would comply with San Francisco Bay RWQCB dewatering requirements to prevent potential water quality impacts on surface waters or ensure proper treatment measures are implemented prior to discharge. However, potential water quality impacts may be encountered or incurred during construction dewatering. Even minimal and short-term drawdown associated with construction dewatering may impact the migration of impacted groundwater. Implementation of **Mitigation Measure HWQ-1** would reduce this impact.

With implementation of **Mitigation Measure HWQ-1**, construction of the Project would not result in the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Construction-related impacts associated with the Project would be ***less than significant with mitigation***. **Mitigation Measure HWQ-1** is not required for the Phase I Development, which is evaluated separately below.

Operation

As shown in Table 3.5-4, the Project would result in an estimated 5 percent increase (193,450 square feet) of impervious surface on the Project Site.

Table 3.5-4. Impervious Area of the Project Site

	Area (Square Feet)	Area (acres)	Area (%)
Existing Impervious	3,212,950	73.76	80
Existing Pervious	803,250	18.44	20
Total	**4,016,200**	**92.20**	**100**
Proposed Impervious	3,406,400	78.2	85
Proposed Pervious	609,800	14.0	15
Total	**4,016,200**	**92.20**	**100**

Source: Kimley Horn. 2020. Hydrology and Water Quality Evaluation for the Bayhill Specific Plan and the YouTube Phase I Office Development Memorandum. March 6.

The Project would be required to comply with the Municipal Regional Permit SMCWPPP C.3 Stormwater Technical Guidance because it would involve new or replaced impervious area greater than 10,000 square feet. The Provision C.3 of the MRP requires that new development mitigate impacts on water quality by incorporating LID measures including site design, pollutant source control, stormwater treatment and flow control measures. LID treatment measures including "capture and re-use" or rainwater harvesting, infiltration, bioretention basins or flow-through planters, and green roofs. Stormwater would be treated per San Mateo County C.3 requirements, prior to discharge to the storm drain system. LID features to treat stormwater runoff are also a requirement under Specific Plan Policy 5-16.

The stormwater management measures proposed for the Project would reduce pollutant discharges from stormwater through filtration and infiltration. Provision C.3 also states, however, that "all projects, regardless of size, should consider incorporating appropriate source control and site design measures that minimize stormwater pollutant discharges to the maximum extent practicable." Regardless of a project's need to comply with Provision C.3, the "maximum extent practicable" standard would be applied, including standard stormwater conditions of approval.

The Specific Plan emphasizes high-quality design approaches to landscaping along streets. Portions of the Project Site would be developed with linear open space "greenways". The landscaped median island and center turn lane on Bayhill Drive and San Bruno Avenue would be retained. Landscape design would minimize stormwater runoff and promote surface filtration. For compliance with the MRP (Provision C.3.j), the City has adopted a Green Infrastructure Plan (GI Plan). The GI Plan addresses long-term measures for the inclusion of vegetated or green landscape into public rights-of-way and public properties in addition to private developments. The MRP requires green landscape in public and private properties to capture stormwater from paved surfaces such as roads, parking lots and other areas where stormwater collects pollutants, which would otherwise be conveyed to San Francisco Bay. Green infrastructure also reduces runoff rates and volumes and allows infiltration of stormwater for groundwater recharge. The Bayhill Specific Plan is noted in the GI Plan as an opportunity for implementation of green infrastructure to further the long-term goals of the GI Plan to reduce pollutants in stormwater discharge. LID treatment methods and compliance with the GI Plan guidelines and other stormwater management requirements would be applied to subsequent phases of the Project. Potential LID measures for future phases of the Project, which are required per Provision C.3 of the MRP and Specific Plan Policy 5-16, include rainwater harvesting and re-use for non-potable water uses, as well as green roofs and pervious pavements where feasible. Additionally, Policy 6-18 requires sustainable landscaping be incorporated to minimize runoff, promote infiltration and reduce contamination from pesticides and fertilizers.

Implementation of the Specific Plan would not violate any water quality standards or otherwise result in water quality degradation during operation because stormwater runoff from the Project Site would be managed according to the provisions of the San Francisco Bay MRP. All stormwater runoff would be treated using LID measures, as required, using measures such as rainwater harvesting, re-use, infiltration, and biotreatment. All stormwater conveyed to treatment facilities would be collected in a piped storm drain system prior to discharging into the public storm drain system.

Incorporation of recommendations from the City's adopted Green Infrastructure Plan into the Specific Plan will ensure development in a manner consistent with the City's and regional long-term goals for pollutant reduction and reduced run-off from impervious surfaces associated with development. Further, Policies 5-16, 5-17, and 5-19 require the following: employ low-impact design, open spaces, plazas, streetscapes, and landscaped areas designed for stormwater management and the efficient use of water, and utilizing sustainable landscaping practices and principles that minimize irrigation and runoff, and minimize the use of pesticides and fertilizers.

To minimize trash-related pollutants from entering receiving waters, the MRP also requires compliance with Provision C.10, Trash Load Reduction. To demonstrate compliance to meet the goal of 100 percent trash load reduction or no adverse impact to receiving waters from trash, implementation of trash control measures and other actions to reduce trash loads from entering storm drain systems is also required. All new development would provide trash capture devices on all drain inlets that connect to the municipal storm drain system, as required by the City. In addition, Policy 5-18 would require new development to implement trash capture devices to reduce trash loads by 100 percent prior to discharging stormwater into the public storm drain system.

The Project would be designed and maintained in accordance with City, County, and San Francisco Bay RWQCB water quality requirements, such as the San Francisco Bay MRP, SMCWPPP, and the Specific Plan Policies. The Project would comply with the General Construction Permit, San Francisco Bay MRP, Provision C.3, and SMCWPPP C.3 Stormwater Technical Guidance, and would implement a SWPPP and other erosion control measures that incorporate stormwater treatment areas such as bioretention areas. However, even with project proposed drainage improvements, the Project would result in impacts as a result of increased impervious areas and associated increased runoff which would increase polluted runoff.

Mitigation Measure HWQ-2 would require project-level drainage studies to be conducted to identify site-specific drainage facilities necessary to avoid increases in drainage flows and associated polluted runoff, and require implementation of stormwater control measures. With implementation of **Mitigation Measures HWQ-2**, operational drainage associated with the Project would not result in increased pollutant runoff and the associated impact would be ***less than significant with mitigation***. **Mitigation Measure HWQ-2** is required for the Phase I Development, as evaluated separately below.

Mitigation Measures

Mitigation Measure HWQ-1: Require Groundwater Monitoring Well Installation and Sampling Prior to Dewatering Activity

For any development proposing excavation and dewatering,[3] the installation of monitoring wells shall be required to measure water levels and water quality, prior to and during dewatering activities, with a focus on potential constituents of concern based on permitting requirements and known or suspected water quality impacts within or near the development site. Project proponents shall install groundwater monitoring wells in the public right-of-way or easement and collect and test samples prior to dewatering activity. Wells are to be drilled as deep as the garage depth being proposed. Other requirements include the following:

- The project proponent shall apply for a groundwater well permit with San Mateo County and an encroachment permit with the City of San Bruno.
- The project proponent or City (reimbursed by the project proponent) shall develop a monitoring, testing, and treatment plan for the City's review.
- The City may require the project proponent to decommission well following construction activity.

If contamination is detected, remedial measures to limit and/or contain the spread of contaminated water shall be implemented. Several options can be employed such as conducting on-site treatment/remediation, disposal in sewer system (with any appropriate pre-treatment) or at hazardous facility depending on type and levels of contamination, tanking, or stopping or phasing underground construction.

Mitigation Measure HWQ-2: Prepare Drainage Report and Implement Stormwater Control Measures to Avoid Increases in Peak Flows.

Applicants proposing new development shall prepare Drainage Report(s) for City review and approval prior to issuance of a grading, building, site development or any construction permits. All development, including interim conditions during construction and interim conditions with temporary improvements, within the Project Site is required to address stormwater management and implement stormwater control measures, including but not limited to on-site detention facilities, capture and re-use measures, green roofs, and/or other measures approved by the City, designed to maintain or reduce current, pre-development, surface runoff and stormwater discharge to the public storm drain system.

These Drainage Report(s) shall contain the following:

- Verification of existing pipe network including pipe size, elevation, material, capacity and condition, including the existing stormwater collection system in Bayhill Drive and Cherry Avenue.
- Hydrologic analysis of construction period conditions and implementation of all temporary facilities necessary during construction to avoid increases in peak flows.
- Hydrologic analysis of existing and proposed operational peak flows that accounts for all areas that will be disturbed by new development.

[3] Does not include Phase I Development.

- Hydraulic analysis for evaluating pipe capacity and sizing of new pipes. The capacity of existing pipes that are proposed for re-use and new pipes shall be sized in accordance with the City's methodology, as noted in the San Bruno Municipal Code or otherwise approved by the City Engineer. New pipes in the public right of way, if required, shall be reinforced concrete pipes and have a minimum size of 15 inches.

Applicants shall implement all permanent facilities necessary to avoid increases in operational peak flows.

Phase I Development

Construction

Like the Project, the Phase I Development must comply with the NPDES Construction General Permit, the Municipal Regional Permit, the City's Municipal Code and grading permit. In addition, a SWPPP is required and would identify standard erosion control measures and BMPs to be implemented during construction to reduce sedimentation of waterways. Temporary BMPs would be implemented to control soil erosion and sediment and restrict non-stormwater discharges. Temporary site improvements, such as the proposed parking lots to be used during Phase I construction, would also comply with water quality standards that provide pollutant control and reduce or limit surface runoff to pre-project conditions.

Dewatering is not planned during construction of the Phase I Development since excavation depths are not anticipated to extend below the anticipated groundwater level encountered at the Phase I Site. Additionally, no known contaminated sites are co-located with or located within the immediate vicinity of the planned Phase I Development construction. Therefore, it is not anticipated that Phase I Development construction would have a significant impact on water quality, waste discharge requirements, or surface and groundwater quality.

Construction-related water quality impacts associated with the Phase I Development would be ***less than significant***.

Operation

The Phase I Development proposes the construction of two new buildings in the location of existing surface parking lots. There would generally be no change in impervious areas on the Phase I Site. However, a portion of the proposed pervious pavement area is above the parking structure. Infiltration to native soils in this area would be limited and cannot be considered pervious. According to the HWQE, the estimated existing impermeability is 76 percent compared to 77 percent after Phase I Development implementation (Kimley Horn 2020). Therefore, there is a potential for increased surface runoff. To maintain the pre-project impervious surface, additional pervious area would be allocated into the Project. Drainage and flooding impacts associated with the Phase I Development are addressed below under Impact HWQ-3.

To manage water quality from increased surface runoff, the Phase I Development preliminary design includes LID areas and methods for treatment of stormwater runoff. To treat both the roof runoff and on-site surface flows, flow-through planters are proposed. The proposed vegetated green roof areas and pervious pavements that would drain directly to native soil around the new building sites would reduce the amount of impervious areas requiring treatment. The Phase I Development buildings would include bioretention planters adjacent to the buildings to collect roof run-off and landscape areas allowing infiltration of water. Bioretention planters are planned for treatment of street improvements in the realigned portions of Grundy Lane and the modified surface parking areas. For compliance with C.3

regulations, roadway runoff from the realignment of Grundy Lane would be directed to bioretention areas located in the street planter strip. Due to the size of the subterranean parking garages, the stormwater treatment facilities that provide infiltration into the underlying soils are limited. However, the preliminary plan would be updated and compliance with C.3 regulations would be reviewed by the City. A Stormwater Control Plan Report, a description of site design and source control measures, drainage management areas, stormwater treatment measure sizing calculations, and a maintenance plan, would be submitted with the final design plans. However, even with Phase I Development proposed drainage improvements, the project would result in impacts as a result of increased impervious areas and associated runoff and polluted runoff.

Mitigation Measure HWQ-2 would require project-level drainage studies to be conducted to identify site-specific drainage facilities necessary to avoid increases in drainage flows and associated polluted runoff, and require implementation of stormwater control measures. With implementation of **Mitigation Measures HWQ-2**, operational drainage associated with the Phase I Development would not result in increased pollutant runoff and the associated impact would be ***less than significant with mitigation***.

Impact HWQ-2a. The Project would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin (Project: Less Than Significant)

Impact HWQ-2b. The Phase I Development would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin (Phase I Development: Less Than Significant)

Project

Construction

Groundwater elevation across the Project Site ranges from approximately 110 ft msl on the western side of the Project Site to approximately 8 ft msl on the eastern side of the Site. Based on the groundwater elevation and as shown in Figure 3.5-2, proposed Garages 2, 5, 7, 8, 9, 10, and 11 would likely require dewatering during construction activities and permanent water proofing design measures. Garages 2, 5, 7, 8, and 9 are associated with YouTube buildout Phases 3, 4, and 5. Garages 10 and 11 would be located west of Cherry Avenue.

As a measure of the potential impacts caused by construction dewatering, the estimated water level drawdown was estimated. Maximum drawdown was conservatively evaluated after one year, assuming a construction dewatering scenario that included one month of initial dewatering and 11 months of maintenance dewatering. This dewatering scenario results in the most conservative (i.e. largest) estimate of dewatering rates and volumes. As shown in Table 3.5-4, groundwater level impacts would be relatively minor at the known contaminated sites, with generally less than five feet of impact.

The total volume of groundwater anticipated to be extracted for dewatering purposes at the Project Site is estimated to be approximately 587 AF over the 20-year Project buildout. This volume is approximately 0.35% of the projected total groundwater extractions from the South Westside Basin over that same 20-year time period. The average volume of groundwater anticipated to be extracted for dewatering purposes at the Project Site is anticipated to be between 19 and 80 AFY over the 20-year Project buildout, with the maximum amount of water expected to be dewatered from the Project Site in any given year is estimated to be 130 AF over the 20-year Project buildout. This volume is approximately 1.5% of the total annual groundwater extractions from the South Westside Basin (8,564 AF). The incremental volume of extraction associated with dewatering operations during construction is not anticipated to substantially interfere with groundwater recharge such that the project would impede sustainable groundwater management within the Westside Groundwater Basin. For further discussion, refer to Appendix 3.5-2.

Because future buildout under the Specific Plan is not known in detail, there is uncertainty regarding construction dewatering estimates. A "maximum potential" scenario was developed to estimate potential construction dewatering volumes, discharge rates, and groundwater level changes due to construction dewatering. As a measure of the potential maximum impact of dewatering operations, the estimated water level drawdown within, and in the vicinity of, the Project Site was also estimated. Depending on the actual site conditions and groundwater extraction rates and durations, drawdown and migration of groundwater may differ from the estimated values. However, dewatering would be conducted on a temporary basis. After dewatering activities are completed, water levels would return to pre-construction conditions. However, even the short-term drawdown associated with construction dewatering may impact the migration of contaminated groundwater, as discussed under Impact HWQ-1.

The City of San Bruno is planning to construct a new public water supply well (Proposed Well 21) approximately 300 feet north of the Project Site. The well is planned to be completed to a depth of 500 ft below ground surface (bgs) with a screened interval from 420 to 500 ft bgs. Proposed Garage 2, which will require dewatering, is located only 300 feet from the proposed well site. During dewatering, the estimated drawdown at this well ranges from 0.95 to 3.65 ft. Since the well will be pulling water from 420 ft bgs, the drawdown from the dewatering efforts are anticipated to have a negligible effect on the water supply generated at this well.[4] It is noted that the EKI Groundwater Assessment (Appendix 3.5-2) studied a worst-case hypothetical situation with all the garages being excavated and dewatered at the same time, and found that drawdown in Well 21 could be as much as 12.2 feet (p.20). The study found no impacts with this amount of drawdown.

To minimize the impacts on groundwater supply and quality, the Specific Plan contains policies to reduce project-related impacts. According to Policy 6-8, groundwater supplies would be protected from chemical pollution. Developers would ensure that development occurring on parcels 5, 6, 9, 11, 12, 13, 14, or 15 as shown in Figure 2-9 is subject to review by the County of San Mateo's Groundwater Protection Program and approved by inspection staff. To assist in groundwater recharge, Policy 6-18 would utilize sustainable landscaping practices that promotes surface infiltration, where possible and Policy 5-16 which requires projects to incorporate LID techniques. During the construction phase of a project, Policies 6-20 and 6-22 require construction-related impacts related to groundwater be minimized. During construction, Policy 6-22 requires holding construction dewatering in baker tanks to settle solids and allow for testing prior to being discharged to the storm system. If dewatering is required, Policies 6-20, 6-21, 6-23, and 6-25 require the following: disposal plan; estimates of dewatering rates, volumes, duration, and radius of impact must be provided as part of project consideration and routinely monitored and shall not exceed the designated volume as allocated by the City of San Bruno; the City will consider project dewatering discharge impacts on the utility system and limit them as necessary; all subsurface garages, if applicable, must have adequate structural design and water proofing and cannot be painted such that dewatering activities are not on-going; and, in the event of a garage waterproofing failure, the owner must take steps to repair it and adhere to City protocol for repair.

[4] According to the 2018 Annual Groundwater Monitoring Report for the Westside Basin (SFPUC 2018) the depth to water in the area of where proposed Well 21 will be located was approximately 270 ft bgs. This leaves a water column of approximately 150 ft above the screened interval of the proposed well and therefore a drawdown of 3.65 ft will not expose the screened interval. Additionally, the proposed Well 21 will be pulling water from the primary production aquifer not the shallow aquifer.

With implementation of the Specific Plan policies noted above, construction of the Project would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Construction-related impacts associated with the Project would be ***less than significant***.

Operation

The proposed parking garages would include water proofing design measures and would not require permanent dewatering. Therefore, the Project would not deplete groundwater supplies due to permanent dewatering activities. ~~The City of San Bruno, including the Project Site, is serviced by both SFPUC and local South Westside Basin groundwater resources. As a participant in the Regional Groundwater Storage and Recovery Project, the City of San Bruno is currently participating in the storage period which require the agency to purchase most of its municipal water resources from surface water agencies, primarily the SFPUC, during normal and wet years. However, the participation in the storage period could change upon notice from SFPUC. The Regional Groundwater Storage and Recovery Project permits participating jurisdictions to continue pumping groundwater during wet years to support well maintenance activities and manage distribution system constraints. The City of San Bruno does pump limited groundwater resources during wet years for these allowable purposes. SFPUC makes available for delivery up to 5.52 MGD of SFPUC water to jurisdictions during storage periods to prevent more extensive groundwater pumping and groundwater withdrawal from the basin. Purchase of water would be based on system needs, water availability, and groundwater recharge goals. Because SFPUC makes available up to 5.52 MGD to minimize groundwater pumping, and because limited groundwater pumping would continue to be permitted to support certain procedures, it is expected that water resources are sufficient to serve the City and the Project, inclusive of Phase I Development, through at least 2040. As discussed in Section 3.11, *Utilities and Service Systems*, of this EIR, approximately 0.57 MGD of water would be required under the Project (assuming the worst-case demand under Maximum Housing Scenario), inclusive of Phase I Development. The Project's Water Supply Assessment concluded that projected supplies would be sufficient to meet the demand of the Project in addition to forecasted growth in the City. Further details on surface and groundwater supply are described in Section 3.11, *Utilities and Service Systems*, of this EIR.~~

As shown in Table 3.5-4, impervious area of the Project site would increase with implementation of the Project from approximately 80 percent to approximately 85 percent. However, the Project Site (92.2 acres) is less than 1% of the Westside Groundwater Basin area (25,400 acres). Given the current developed state of the Project Site, development allowed by the Bayhill Specific Plan would not substantially interfere with groundwater recharge or impede sustainable groundwater management of the Westside Groundwater Basin. In addition, the Specific Plan promotes a variety of open space types including greenways and publicly accessible, privately owned and maintained open space which would also allow for groundwater recharge.

The Specific Plan contains a number of policies for ensuring continued water quality within the South Westside Basin (see Policies 6-18, 5-5, 5-16). These policies include supporting the water quality of the Westside Basin by utilizing sustainable landscaping practices that minimize irrigation and runoff, promote surface infiltration, and minimizes pesticide and fertilizer use, require new development to incorporate LID, such as natural drainage systems and groundwater recharge features, and require increasedwater-efficiency for landscaping. Project implementation is also required to conform with applicable local, state, and federal groundwater requirements. In addition, compliance with the City of San Bruno General Plan policies would require the protection of groundwater recharge areas, and would not impede sustainable groundwater management of the basin.

Based on the above, operation of the Project would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Operational impacts associated with the Project would be ***less than significant***.

Phase I Development

Construction

The groundwater elevation at the Phase I Site ranges from approximately 55 ft msl to 40 ft msl. The proposed garages constructed as part of Phase I would be above the water table and would not require dewatering during construction activities. Seasonal fluctuations in the local water table are expected, however the magnitude of water table fluctuations is unknown. Seasonal variations in the water table could change the necessity for dewatering. Construction dewatering could result in the drawdown and migration of groundwater. In the event construction dewatering is needed due to seasonal fluctuations in groundwater levels, Specific Plan Policies 6-8, and 6-18 through 6-24 would be implemented to reduce groundwater impacts and dewatering impacts due to construction. Therefore, a decrease in local or Westside Groundwater Basin groundwater supplies is not anticipated.

Construction-related impacts associated with the Phase I Development would be ***less than significant***.

Operation

The proposed parking garages under the Phase I Development would include water proofing design measures and would not require permanent dewatering. Therefore, the Phase I Development would not deplete groundwater supplies due to permanent dewatering activities.

There would generally be no change in impervious areas on the Phase I Site. However, a portion of the proposed pervious pavement area is above the parking structure, resulting in limited infiltration and potential recharge. The estimated existing impermeability is approximately 76 percent compared to approximately 77 percent after project implementation. Further, the Phase I Site (8.39 acres) is less than 1% of the Westside Groundwater Basin area (25,400 acres) (Kimley Horn 2020). Given the current developed state of the Phase I Site, the Phase I Development would not substantially interfere with groundwater recharge because it would not substantially decrease the size of groundwater recharge areas. The reduced pavement area within the right of way in Grundy Lane replaces impervious pavement areas with a linear landscape strip with new trees located between the street curb and sidewalk. This new streetscape would reduce surface water flows and promote infiltration and increase groundwater recharge through the landscaping into the underlying soil. Compared to the size of the Project Site, the increase in impervious surface area on the Phase I Site is inconsequential and would not substantially interfere with groundwater recharge such that sustainable groundwater management of the basin would be impeded.

Operational impacts on groundwater supply, recharge, or sustainable management associated with the Phase I Development would be ***less than significant***.

Impact HWQ-3a. The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or offsite; substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite; Create or contribute water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or Impede or redirect flood flows (Project: Less Than Significant with Mitigation)

Impact HWQ-3b. The Phase I Development would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or offsite; substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite; Create or contribute water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or Impede or redirect flood flows (Phase I Development: Less Than Significant with Mitigation)

Project

Construction

During construction, stormwater drainage patterns could be temporarily altered. However, the Project would implement BMPs, required in the Project SWPPP to minimize the potential for erosion or siltation in nearby storm drains and temporary changes in drainage patterns during construction. During construction, implementation of an Erosion Control Plan is also required. Construction BMPs would capture and infiltrate small amounts of sheet-flow into the ground such that offsite runoff from the construction site would not increase, ensuring that drainage patterns are not significantly altered. Measures required by the Construction General Permit would also limit site runoff during construction and would not alter stormwater drainage patterns. BMPs would be implemented to control construction site runoff, ensure proper stormwater control and treatment, and reduce the discharge of pollution to the storm drain system.

Thus, construction of the Project would not substantially alter the existing drainage pattern of the area in a manner which would result in substantial erosion or siltation or increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite. However, as discussed below under operation, the existing stormwater drainage system has existing capacity deficiencies downstream, and thus any increase in site runoff would exceed the system capacity. As a result, during construction, the Project could create or contribute water that would exceed the capacity of existing stormwater drainage systems. **Mitigation Measure HWQ-2** would require project-level drainage studies to be conducted to identify site-specific drainage facilities necessary during construction to avoid increases in drainage flows to the existing system and implementation of the necessary drainage improvements during construction. With implementation of **Mitigation Measure HWQ-2**, Project construction would not result in an exceedance of drainage system capacities and the associated impact would be ***less than significant with mitigation***.

Operation

All drainage facilities would be designed to meet City of San Bruno Standards and would drain to the existing public storm drain system. Runoff would continue to drain from west to east and be conveyed to the storm drain system to the eastern portion of the site near Elm Avenue. The 25-year and 100-year storm events would be considered in the Project design consistent with the City's municipal code requirements. Pipeline capacity deficiencies have been identified in the existing 72-inch diameter trunk line that runs through the Project area as well as storm drain infrastructure further downstream. Multiple options were identified in the Master Plan to address the capacity deficiencies, including proposed improvements to the stormwater system for the 72-inch storm drain main at and to the east of Elm Avenue. Project improvements include the relocation of the existing 72-inch trunk line to maximize the developable area on the parcels. However, the existing 72-inch pipeline segment to be realigned would still need to be abandoned or removed, as further discussed in Section 3.11, *Utilities and Service Systems*, of this EIR. The City may construct a parallel 72-inch diameter pipeline as part of Stormwater Capital Improvement Plan improvements. An alternative to the two parallel 72-inch pipelines is a larger, single conveyance pipeline or structure to carry the 25-year storm peak flows. The existing 72-inch pipe near the eastern Project Site boundary near Elm Avenue (Phases IV and V) and downstream conveyance facilities have existing capacity deficiencies. However, the City's Storm Drain Master Plan concluded that upsizing the existing 72-inch pipeline within the Planning Area would not completely address the storm drain capacity deficiencies that are outside the Project area. Further details about proposed storm drain improvements are described in Section 3.11, *Utilities and Service Systems*, of this EIR.

Although the Project Site contributes less than 7 percent of the overall runoff within the San Bruno Creek Watershed storm drain conveyance system, any increase in runoff to the storm drain network during construction and final development condition combined with existing capacity deficiencies in the existing system, may cause an adverse impact. As shown in Table 3.5-4, impervious area of the Project Site would increase with implementation of the Project from approximately 80 percent to approximately 85 percent. This could result in an increase in surface water runoff and stormwater discharge to the storm drain system. The estimated peak flow runoff from the Project Site would increase by approximately 6.7 cubic feet per second, or 3.6 percent, compared to existing conditions. While the potential increase in peak flows is relatively minor, these flows would contribute to and exceed the existing drainage system already over capacity. Considering the drainage system capacity deficiency, the additional runoff from the Project Site would result in an exceedance of the system capacity, and this would be a significant impact relative to drainage systems.

Mitigation Measure HWQ-2 would require project-level drainage studies to be conducted to identify site-specific drainage facilities necessary to avoid increases in drainage flows to the existing system, andconstruction of the necessary drainage improvements. With implementation of **Mitigation Measure HWQ-2**, Project operations would not result in an exceedance of drainage system capacities and the associated impact would be ***less than significant with mitigation***.

To meet local, state and federal requirements for water quality treatment as well as flood control, stormwater management facilities for each development will also be incorporated. Post-construction water quality treatment measures, as required by C.3 regulations, such as bioretention areas, flow-through planters, green-roofs and pervious pavements that drain to native soil, are expected to be implemented as part of the Project development. Stormwater runoff would be captured in drainage facilities or infiltrated into native soil to recharge groundwater. A Stormwater Control Plan Report, a description of site design and source control measures, drainage management areas, stormwater treatment measure sizing calculations, and a maintenance plan, would be submitted with the final design plans. With implementation of the existing water quality regulations, including the C.3 requirements, the Project would have a ***less than significant impact*** related to stormwater treatment facilities.

Phase I Development

Construction

Like the Project, stormwater drainage patterns under the Phase I Development could be temporarily altered. Implementation of BMPs, identified in the required Project SWPPP, and an Erosion Control Plan would minimize the potential for erosion or siltation in nearby storm drains and temporary changes in drainage patterns during construction. Measures required by the Construction General Permit would also limit site runoff during construction and would not alter stormwater drainage patterns. Temporary BMPs would be implemented to control construction site runoff, ensure proper stormwater control and treatment, and reduce the discharge of pollution to the storm drain system. As part of the construction documents, a final Stormwater Control Plan is required and would be reviewed by the City for compliance with MRP requirements and for consistency with SMCWPPP's C.3 Stormwater Technical Guidance.

However, as discussed below under operation, the existing stormwater drainage system has existing capacity deficiencies downstream, and thus any increased in site runoff would exceed the system capacity. As a result, during construction, the Phase I Development could create or contribute water that would exceed the capacity of existing stormwater drainage systems. **Mitigation Measure HWQ-2** would require project-level drainage studies to be conducted to identify site-specific drainage facilities necessary during construction to avoid increases in drainage flows to the existing system and implementation of the necessary drainage improvements during construction. With implementation of **Mitigation Measure HWQ-2**, Phase I Development construction would not result in an exceedance of drainage system capacities and the associated impact would be ***less than significant with mitigation***.

Operation

As discussed previously, the estimated existing impermeability of the Phase I Site is 76 percent compared to 77 percent after project implementation. With the increase in impervious area, there would be a small increase in the estimated peak flow runoff by approximately 0.5 cubic feet per second, or approximately 1%.

Planned storm drain improvements within the Phase I Site include a new 24-inch diameter public storm drain pipeline in the realigned Grundy Lane. The downstream section of the pipe will be upsized to a 30-inch diameter pipeline to address hydraulic capacity and an allowance for potential additional flows from future phases of development to the Grundy Lane storm drain. Stormwater from the Phase I Site would be collected and conveyed by the 24-inch line in Grundy Lane and the existing line in Bayhill Drive. Considering the current capacity limitation of the existing storm system, there can be no net increase to peak flows. Thus, even with project proposed drainage improvements, the project would result in a significant impact as a result of increasing runoff which would result in an exceedance of the drainage system.

Mitigation Measure HWQ-2 would require project-level drainage studies to be conducted to identify site-specific drainage facilities necessary to avoid increases in drainage flows to the existing system, and construction of the necessary drainage improvements. With implementation of **Mitigation Measure HWQ-2** , operational drainage associated with the Phase I Development would not result in an exceedance of drainage system capacities and the associated impact would be ***less than significant with mitigation***.

Impact HWQ-4a. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (Project: Less Than Significant)

Impact HWQ-4b. The Phase I Development would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (Phase I Development: Less Than Significant)

Project

Commonly practiced BMPs would be implemented to control construction site runoff and to reduce the discharge of pollutants to storm drain systems from stormwater and other nonpoint-source runoff. As part of compliance with permit requirements during ground disturbing or construction activities, implementation of water quality control measures and BMPs would ensure that water quality standards would be achieved, including the water quality objectives that protect designated beneficial uses of surface and groundwater, as defined in the basin plan. Construction runoff would also have to comply with the appropriate water quality objectives for the region. The NPDES Construction General Permit also requires stormwater discharges not to contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses.

The total volume of groundwater anticipated to be extracted for dewatering purposes at the Project Site is estimated to be approximately 587 AF over the 20-year Project buildout. This volume is approximately 0.35% of the projected total groundwater extractions from the South Westside Basin over that same 20-year time period. The maximum amount of water expected to be dewatered from the Project Site in any given year is estimated to be 130 AFY, which is approximately 1.5 percent of the total annual basin-scale groundwater extraction. These extraction volumes are not anticipated to obstruct implementation of a sustainable groundwater management plan or a water quality control plan (EKI 2019). In addition, implementing of the appropriate General Plan policies would require the protection of groundwater recharge areas and groundwater resources, as required by a sustainable groundwater management plan.

Thus, construction and operation of the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Construction- and operation related impacts associated with the Project would be ***less than significant***.

Phase I Development

Dewatering is not planned during Phase I Development construction or operation since excavation depths are not anticipated to extend below the anticipated groundwater level encountered at the Phase I Site. Therefore, it is not anticipated that Phase I construction or operation would obstruct implementation of a sustainable groundwater management plan or a water quality control plan.

Construction-related and operational hydrology and water quality impacts associated with the Phase I Development would be ***less than significant***.

3.5.3 Cumulative Impacts

Impact C-HWQ-1: The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable violations of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (Project, including Phase I Development: Less than Significant with Mitigation).

Development of the Project, combined with other past and future development or redevelopment within the potentially affected geographic area (the San Bruno Creek Watershed for surface water quality and the Westside Groundwater Basin for groundwater quality), could degrade stormwater quality through an increase in impervious surface area and an increase in contaminated runoff. This could ultimately violate water quality standards, affect beneficial uses, and/or further impair 303(d)-listed waters within the watershed. The quality of stormwater runoff varies with surrounding land uses, topography, and the amount of impervious cover as well as the intensity (energy) and frequency of irrigation or rainfall.

Stormwater drainage can result in cumulative effects on water quality within the affected basin. Development within the vicinity of the Project could degrade stormwater quality during construction through land disturbance and during operation through an increase in impervious surface area and contaminated runoff. During construction, runoff may contain sediments and other construction materials and wastes (e.g., concrete debris), resulting from activities such as site clearing, demolition and the removal of the existing structure and pavement, grading and excavation, paving, and landscaping. During operation, runoff may contain oil, grease, and metals that accumulated in streets and parking lots as well as pesticides, nutrients, animal waste, and trash from landscaped areas.

When the effects of the Project on water quality are considered in combination with the overall project and potential effects of other cumulative projects, there would be the potential for cumulative impacts on surface and groundwater quality. The geographic area is fully developed. Buildout of cumulative projects would involve redevelopment of existing developed sites that contain substantial impervious surfaces. The incremental water quality impact contribution from implementation of the Project would be minor. The combined effects on water quality from the Project and other projects could result in a cumulatively significant impact. However, these cumulative projects would be required to comply with the city's MRP, SMCWPPP requirements, the construction general permit, and city municipal codes as they relate to water quality and stormwater discharge. These regulatory requirements have been designed to protect water quality. Additionally, development projects would be subject to an environmental review process, which would identify potential site and/or project specific water quality impacts and mitigate for any potential significant impacts.

Before mitigation, the Project could contribute to cumulative significant water quality impacts relative to construction dewatering and increased runoff and associated polluted runoff as described under Impact HWQ-1 above. However, with implementation of **Mitigation Measures HWQ-1 and HWQ-2**, water quality effects due to construction dewatering and runoff would be controlled such that the project would not contribute considerably to cumulative significant water quality impacts.

Therefore, cumulative impacts on water quality as a result of the Project, inclusive of the Phase I Development (a component of the overall Project), would ***be less-than-cumulatively considerable with mitigation***.

Impact C-HWQ-2: The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that sustainable groundwater management of the basin would be impeded (Project, including Phase I Development: Less than Significant).

During construction of other reasonably foreseeable development projects within the Westside Groundwater Basin, potential dewatering could be conducted on a one-time or temporary basis during the construction phase but would not result in a loss of water that would deplete groundwater supplies. During operation, new impervious areas can reduce the potential for groundwater recharge. However, most other reasonably foreseeable projects in the basin would be redevelopment or infill projects in highly urbanized areas where there is limited existing recharge through infiltration due to impervious area. Development in highly urbanized areas would not be expected to increase the amount of impervious surfaces substantially because this development would be occurring mostly in areas with a substantial amount of existing impervious surfaces. Therefore, groundwater recharge from percolating rainfall would not be adversely affected, and an indirect lowering of the local groundwater table is not likely to occur. The Project would not substantially interfere with groundwater recharge because it would not materially decrease the size of groundwater recharge areas. The Specific Plan promotes a variety of green infrastructure, LID, and open space which would allow water to infiltrate. Cumulative development would also follow the City's adopted Green Infrastructure Plan. Therefore, groundwater recharge would not be adversely affected and cumulative groundwater recharge impacts would be less than considerable.

Cumulative development could require increases in water supplies. During construction, the Project would implement policies to reduce impacts related to dewatering and groundwater resources. The Project would not rely on surface or groundwater supplies, therefore, would not affect groundwater supplies during construction or operation. Landscape and LID features would continue to allow for groundwater infiltration. Because of the presence of existing impervious surfaces on the project site, the Project would contribute only minimally to cumulative impacts on groundwater recharge. Therefore, impacts related to development of the Project, inclusive of the Phase I Development (a component of the overall Project), would not be cumulatively considerable and cumulative impacts on groundwater recharge and supply would be ***less-than-cumulatively considerable***.

Impact C-HWQ-3: The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not substantially alter the existing drainage pattern of the area, in a manner which would result in erosion or siltation; increase the rate or amount of surface runoff that would result in flooding; exceed the capacity of existing or planned stormwater drainage systems (Project, including Phase I Development: Less than Significant with Mitigation).

Cumulative development within the vicinity of the Project could increase the volume and rate of stormwater runoff. Such increases could cause localized flooding if the storm drainage capacity is exceeded or convey excess flows to overbank areas where flood storage may not be available. Generally, cumulative projects would occur in developed areas with existing impervious surfaces, and would not be expected to substantially increase the amount of new impervious surfaces.

All new development is required to handle stormwater in a manner that ensures that flooding will not increase and flood flows will not be redirected to other areas that are not currently prone to flooding. All cumulative projects would be required to include stormwater management features, such as LID measures into project designs to reduce flows to pre-project conditions. If improvements to storm drainage capacity are needed, the City would ensure the appropriate storm drainage improvements are identified. The Project would result in a small increase in impervious surfaces. However, post-construction storm water management BMPs include implementation of green roofs or permeable pavement, allowing stormwater infiltration and reducing impacts associated with the increase in impervious areas.

As discussed above under Impact HWQ-3, the Project, before mitigation, may increase drainage discharge that could exceed the existing system's capacity. Given that the existing drainage system is at capacity, the Project could contribute to a cumulative significant impact on drainage capacity. However, with implementation of **Mitigation Measure HWQ-2**, the project's contribution to downstream drainage impacts would be reduced to a less than considerable level. Implementation of the City's Stormwater Capital Improvement Plan and other Master Plan improvements would also ensure that pipes are adequately sized, and stormwater capacity is sufficient for the existing and planned stormwater drainage system. Therefore, with mitigation, the Project, inclusive of the Phase I Development (a component of the overall Project), would not likely contribute to the cumulative exceedance of storm drainage capacity, and there would be a ***less-than-cumulatively considerable*** contribution to the cumulative impact.

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3.6 Land Use and Planning

This section describes the environmental and regulatory setting for land use and planning in the City of San Bruno as it pertains to the Bayhill Specific Plan and Phase I Development (Project). It also describes the land use and planning impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ Environmental Impact Report (EIR), the Project comprises the Specific Plan and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level, and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described.

This section also addresses the Project's consistency with applicable land use goals, policies, and programs of the City of San Bruno, including the General Plan and the Zoning Ordinance, the San Francisco Airport Land Use Commission's Comprehensive Land Use Plan, and Plan Bay Area 2040.

Land use and planning analyses under the California Environmental Quality Act (CEQA) generally consider the compatibility of a project with neighboring areas, change to or displacement of existing uses, and consistency of a project with relevant local land use policies. The magnitude of land use conflicts or compatibility issues depends on the extent to which a project physically divides an established community or conflicts with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect such that an adverse impact on the environmental occurs.

Issues identified in response to the Notice of Preparation (NOP) (Appendix 1) and revised NOP were considered in preparing this analysis. The NOP comments pertaining to land use and planning include:

- Three comments referencing potential land use compatibility conflicts with the Airport Land Use Compatibility Plan (ALUCP) for the environs of San Francisco International Airport (SFO). The first two comments, made on the NOP by the City/County Association of Governments of San Mateo County and SFO, stated that, in light of the Project Site's location within Airport Influence Area (AIA) B of SFO, the height of new development must be maintained below defined obstacle clearance surfaces. Furthermore, the 65–70 decibel (dB) Community Noise Equivalent Level (CNEL) noise zone, which covers the northeastern corner of the Project Site, conditionally limits land uses for both residential and certain public uses. These issues are addressed under Impact LU-2 below.
- The third airport-related comment, made by SFO on the revised NOP, stated that due to the modification of the Project Site boundary to exclude five parcels fronting El Camino Real and San Bruno Avenue West, the Project Site no longer falls within the forecast 65 dB 2020 CNEL noise contour. However, because overnight uses in the Project Site could experience some noise disturbance from aircraft departures, it was requested that the EIR continue to assess the potential land use, noise, and safety impacts that may occur as a result of the Project Site's relation to SFO. However, this comment was incorrect in that portions of the following properties within the Project Site in fact still are projected to be within the 65 dB CNEL noise contour (see Figure 3.7-1): 999–1001 Bayhill Drive, 1050 Bayhill Drive, 1100 Grundy Lane, and the parking lot between the Courtyard by Marriott and Kaiser Permanente. Therefore, this topic is evaluated in Section 3.7, *Noise*.
- A comment provided by the San Francisco Public Utilities Commission (SFPUC) referencing the presence of the rights-of-way (ROW) belonging to SFPUC within the environs of the Project Site. It

was requested that SFPUC pipelines and easements be described. It was stated that the construction of an off-street multi-modal transportation hub, the realignment and straightening of Grundy Lane from Cherry Avenue to Elm Avenue, and the abandonment of the northern portion of Elm Avenue directly to the north of the realigned Grundy Lane would be within the SFPUC pipeline eastern easement and may affect SFPUC pipelines. It was requested that SFPUC's adopted plans and policies be included in the policy consistency analysis. These issues are addressed under Impact LU-2 below.

3.6.1 Existing Conditions

3.6.1.1 Regulatory Setting

State

State Planning Law

State law (California Government Code Section 65300 et seq.) requires each California municipality to prepare a general plan. A general plan is defined as "a comprehensive, long-term general plan for the physical development of the county or city, and any land outside its boundaries which in the planning agency's judgment bears relation to its planning." State requirements call for general plans that "comprise an integrated, internally consistent and compatible statement of policies for the adopting agency." While allowing considerable flexibility, State planning laws do establish some requirements for the issues that general plans must address. The California Government Code establishes both the required content of general plans and rules for their adoption and subsequent amendment.

Article 8 of the Government Code (Sections 65450–65457) allows local planning agencies to prepare specific plans for the systematic implementation of the general plan, for all or part of the area covered by the general plan. A specific plan must include, either through text or diagrams, the following information:

(1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.

(2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.

(3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.

(4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

Additionally, the specific plan must be consistent with the general plan and include a statement of the relationship of the specific plan to the general plan.

California Code of Regulations, Business and Professions Code

Section 11010 of Division 4: Real Estate of the California Business and Professions Code requires individuals offering subdivided property for sale or lease to disclose the presence of all existing and planned airports within 2 miles of the property or within an established AIA.

Sustainable Communities and Climate Protection Act of 2008 (Chapter 728, Statutes of 2008)

The Sustainable Communities and Climate Protection Act of 2008, otherwise known as Senate Bill (SB) 375, requires the integration of land use, housing, and transportation planning to achieve regional greenhouse gas (GHG) emission reductions, adopted by the California Air Resources Board. SB 375 requires Metropolitan Planning Organizations to develop a Sustainable Communities Strategy (SCS)—a new element of the Regional Transportation Plan (RTP)—to plan for achieving these GHG reduction targets. The SCS must demonstrate the attainment of the regional GHG emission-reduction targets while accommodating the full projected population of the region.

Regional

Plan Bay Area 2040

The Metropolitan Transportation Commission and Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2040 in 2017. Plan Bay Area 2040 is the integrated land use/transportation plan and demographic/economic forecast for the nine-county San Francisco Bay Area region. The plan coordinates housing plans, open space conservation efforts, economic development strategies, and transportation investments.

One of the main goals of Plan Bay Area 2040 is to reduce GHG emissions from cars and light-duty trucks through the year 2040 to meet State goals under SB 375. As described above, under SB 375, Metropolitan Planning Organizations such as the Metropolitan Transportation Commission must develop an SCS as part of the RTP. Plan Bay Area 2040 functions as both the SCS and the RTP for the region.

To reduce GHG emissions, Plan Bay Area 2040 promotes compact, mixed-use, infill development within walkable/bikeable neighborhoods close to public transit, jobs, schools, shopping, parks, recreation, and other amenities. Local jurisdictions voluntarily identified Priority Development Areas (PDAs) as appropriate locations for these types of neighborhoods. PDAs are eligible for capital infrastructure funds, planning grants, and technical assistance. The adopted Plan Bay Area 2040 estimates that approximately 80 percent of the region's future housing needs may be met within PDAs. The strategy of focusing growth in PDAs maximizes travel choices, reduces dependency on driving, takes advantage of existing infrastructure capacity, and reduces pressure to develop open space. The entirety of the Project Site is within a PDA, as shown on Figure 2-8 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR.

In addition, Plan Bay Area 2040 identifies Transit Priority Areas, which are defined as areas within 0.5 mile of a major transit stop such as an existing or planned rail station or bus routes with headways of 15 minutes or better during morning and evening peak periods. Under SB 743, approved in 2013, a Transit Priority Area project that meets all of the following criteria is granted a CEQA exemption: it is a residential development, employment center or mixed use project; it is within a Transit Priority Area; the project is consistent with a specific plan for which an EIR was certified; and it is consistent with an adopted SCS or alternative planning strategy. Approximately one-third of the Project Site is within a Transit Priority Area, as shown on Figure 2-8 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR.

Comprehensive Airport Land Use Compatibility Plan

The *Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport*, prepared by the City/County Association of Governments of San Mateo County, is a State-mandated land use compatibility plan that addresses the compatibility of surrounding land uses in local jurisdictions with airport operations.

The Project Site falls within AIA Areas A and B of SFO. Area A includes the entirety of San Mateo County, all of which is overflown by aircraft flying to or from SFO at least once per week at altitudes of 10,000 feet or fewer above mean sea level. Area B lies within Area A and contains areas exposed to aircraft noise above the 65 dB CNEL contour or lying below critical airspace (City/County Association of Governments of San Mateo County 2012).

The ALUCP establishes safety compatibility policies to protect public health and safety by minimizing the public's exposure to the risk associated with potential aircraft accidents in the airport vicinity. The ALUCP identifies five safety compatibility zones in the vicinity of SFO. The Project Site does not fall within any of the airport's safety compatibility zones and is thus not subject to land use criteria pertaining to safety compatibility.

The ALUCP also establishes airport vicinity height limitations to protect public safety, health, and welfare by ensuring that aircraft can safely fly in the airspace around an airport and to protect the operational capability of airports. As noted in the ALUCP, the height of new development must be maintained below defined obstacle clearance surfaces. As shown on Figure IV-17 in the ALUCP, the Project Site does not fall within any of the airport's critical aeronautical surfaces.

Noise compatibility policies described within the ALUCP are intended to minimize the exposure of residents and occupants of future noise-sensitive development to excessive noise. CNEL noise contours identify areas where noise exposure is great enough to warrant land use controls to promote noise compatibility. The ALUCP includes forecasted 2015 and 2020 CNEL noise contours. The airport's forecasted 65 dB CNEL noise contours for 2015 and 2020 in the City of San Bruno are very similar, and cross the northeast corner of the Project Site. Therefore, a small northeastern portion of the Project Site is between the 65 and 70 dB 2020 CNEL noise contours, the majority of the Project Site is between the 60 and 65 dB 2020 CNEL noise contours, and the western third of the Project Site is subject to less than 60 dB CNEL noise (see Figure D-3, *Forecast 2015 and 2020 Noise Exposure*, in the ALUCP). Figure 3.7-1 in Section 3.7, *Noise*, shows the CNEL noise contours in relation to the Project Site.

The ALUCP includes policies and standards to protect people living in the vicinity of SFO from the effects of aircraft noise (City/County Association of Governments of San Mateo County 2012). Policy NP-2, Airport/Land Use Compatibility Criteria, establishes criteria to determine the compatibility of proposed land uses in the Airport Noise Compatibility Zones (reproduced in Section 3.7, *Noise*, as Table 3.7-7). Commercial uses, including office and general retail, are considered compatible with noise levels up to 75 dB. Public and institutional uses are generally considered to be conditionally compatible with noise levels up to 70 dB and generally incompatible with noise levels above 70 dB. Residential uses are compatible with noise levels below 65 dB, conditionally compatible with noise levels between 65 and 70 dB, and generally incompatible with noise levels in excess of 70 dB.

San Francisco Public Utilities Commission Interim Water Pipeline Right of Way Use Policy

As illustrated on Figure 3.6-1, SFPUC maintains several easements in and around the Project Site. The San Andreas Pipelines No. 2 and 3 are located in a 45-foot-wide easement along the western edge of the Project Site. The Sunset Supply Line and Crystal Springs Pipeline No. 2 are located in a 40-foot-wide easement along the eastern edge of the Project Site. The northern portion of Elm Avenue directly to the north of the realigned Grundy Lane is within the SFPUC pipeline eastern easement (Figure 3.6-1).

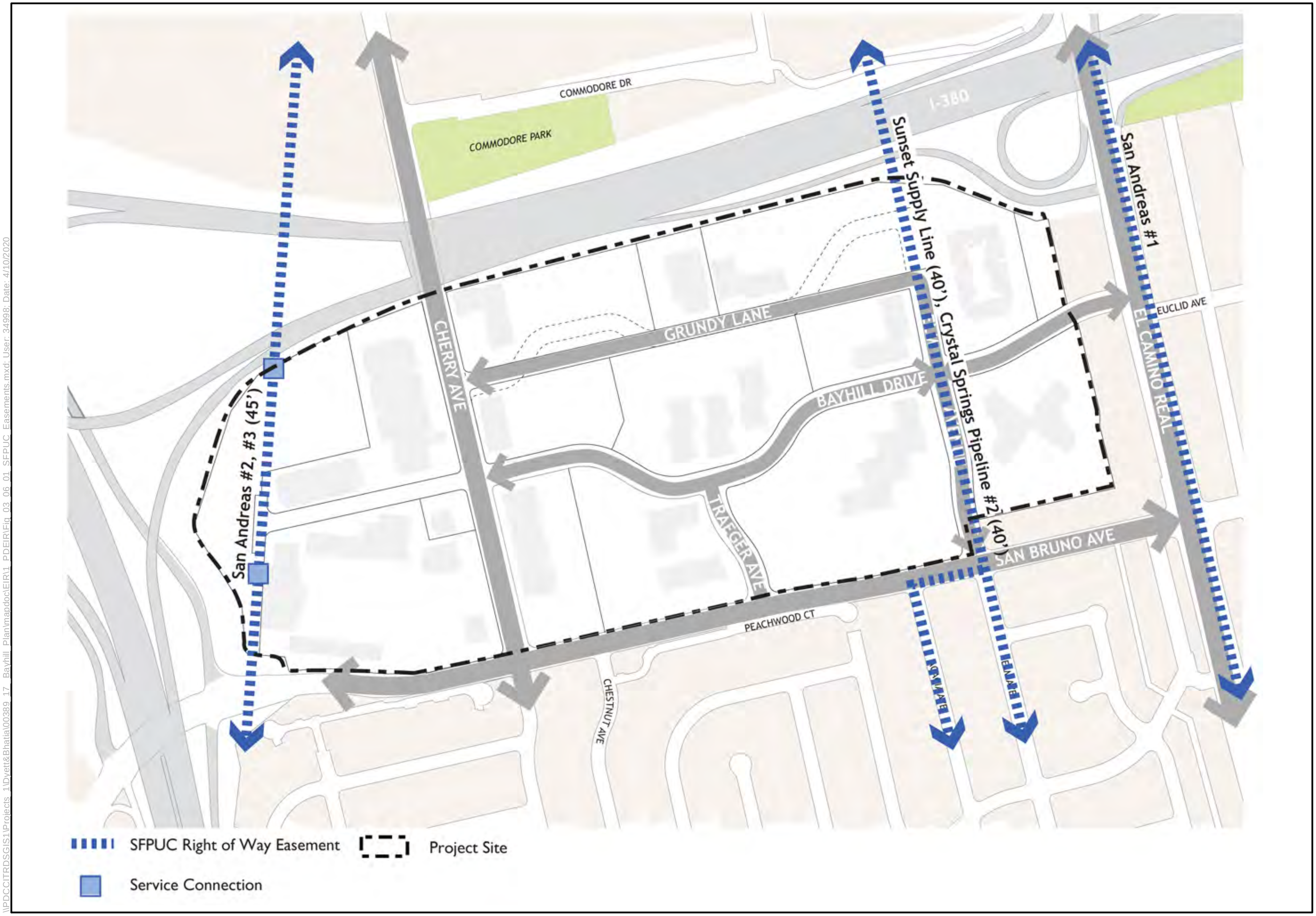

Figure 3.6-1
SFPUC Easements Within the Project Site

SFPUC maintains policies to help inform how and in which instances the easement can serve the needs of public agencies, private parties, nonprofit organizations, and developers while maintaining the safety and security of the pipelines that run underneath the easement. SFPUC policies pertain to land use and structures, recreational use, utilities, vegetation, and water efficiency. Construction of structures on the easement is generally prohibited, with prohibitions on structures or improvements that require excavation, bored footings, or concrete pads that are greater than 6 inches deep. No structures may be placed directly on top of a pipeline or within 20 feet of the edge of a pipeline. No utilities may be installed on the easement running parallel to SFPUC's pipelines; utilities may run perpendicular to pipelines with SFPUC approval.

According to SFPUC's Interim Water Pipeline Right of Way Use Policy for San Mateo, Santa Clara, and Alameda Counties (San Francisco Public Utilities Commission 2015), SFPUC typically issues 5-year licenses for use of its property, with a form of rent and insurance required upon signing. These licenses are revocable, meaning that SFPUC can revoke them prior to the 5-year expiration. The licensee (user of SFPUC property) is to maintain landscaping and equipment to ensure that water is used efficiently. Water runoff leaving a landscaped area due to low head drainage, overspray, broken irrigation hardware, or other similar conditions is prohibited. Structures on the easement area are generally prohibited under SFPUC's policies.

San Francisco Public Utilities Commission Integrated Vegetation Management Policy

The Right of Way Integrated Vegetation Management Policy was established to manage vegetation on the transmission, distribution, and collection systems within SFPUC's easement so that it does not pose a threat or hazard to the system's integrity and infrastructure or impede utility maintenance and operations. These policies include regulations on the types of plantings that are permitted to occur within each zone of the easement, regulations on annual grass and weed management, and policies pertaining to vegetation removal.

Local

City of San Bruno General Plan

The San Bruno General Plan 2025, adopted in 2009, establishes a vision and action plan for the city's long-term development. The plan outlines goals and policies to encourage balanced development that conserves and revitalizes established neighborhoods and commercial areas, while promoting mixed-use and transit-supportive developments adjacent to transit stations. The resulting land use classifications and development standards that are relevant to the Project Site are described below. The existing land use classifications are shown in Figure 2-5 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR.

Goals and Policies

The General Plan contains goals and policies related to Land Use and Urban Design, Economic Development, Transportation, Open Space and Recreation, Environmental Resources and Conservation, Health and Safety, and Public Facilities and Services. Applicable land use goals and policies from these elements and chapters, including the Housing Element, are discussed under Impact LU-2 below. Table 3.6-2, presented later in this section, analyzes the Project's consistency with applicable General Plan policies that have been adopted to avoid or mitigate an environmental impact and describes the environmental effects of any potential inconsistencies and proposed mitigation.

Existing General Plan Land Use Classifications (as of 2019)

Regional Office. The Regional Office General Plan land use classification accommodates administrative, professional, and medical offices located in a campus-style setting or office park. All of the Project Site, with the exception of the Bayhill Shopping Center, is currently classified as Regional Office in the General Plan. The Regional Office classification permits a base maximum Floor Area Ratio (FAR) of 1.5 (i.e., 1.5 square feet of floor area for every 1 square foot of land area), with potential additional discretionary 0.5 FAR for projects that provide transportation demand measures and urban design amenities as specified in the Zoning Ordinance; however, the Zoning Ordinance has not yet been updated to reflect these provisions.

Neighborhood Commercial. Neighborhood Commercial permits convenience and commercial uses including, but not limited to, grocery and drug stores; eating and drinking establishments; apparel and accessory stores; personal and business services; professional and medical offices; financial, insurance, and real estate offices; and auto repair and services. Residential is conditionally permitted on upper floors as part of mixed development with commercial use, subject to combined maximum FAR limits. The Neighborhood Commercial classification permits a maximum FAR of 1.2. The Bayhill Shopping Center is classified as Neighborhood Commercial in the General Plan.

Land Use and Urban Design Element

The Land Use and Urban Design Element includes policies regarding land use classifications, focus areas and corridors, and views. Policies in the element seek to ensure that new development is sensitive to existing uses and is of the highest quality design and construction. The Land Use and Urban Design Element contains policies LUD-51 to LUD-53 that specifically address the Bayhill Office Park. These polices promote construction of professional and administrative offices on existing surface parking lots in Bayhill (LUD-51), allow ancillary commercial uses within the Bayhill Office Park to serve employee needs (LUD-52), and require new office development within the Bayhill Office Park to provide alternative transportation (LUD-53).

City of San Bruno Housing Element

All California cities and counties are required to have a Housing Element included in their general plans that establishes housing objectives, policies, and programs in response to community housing conditions and needs. San Bruno's Housing Element, adopted April 15, 2015, focuses on the 2015 to 2023 planning period, consistent with the City's Regional Housing Needs Allocation as assigned to the City by ABAG and State law requirements. The policies within the Housing Element are an expression of the statewide housing goal of "attaining decent housing and a suitable living environment for every California family," as well as a reflection of the unique concerns of the San Bruno community.

City of San Bruno Walk 'N Bike Plan

The City of San Bruno Walk 'N Bike Plan promotes mobility within the City of San Bruno by outlining specific improvements to ensure that walking and biking are safe, comfortable, and convenient. Proposed improvements include crosswalk enhancements; addition of safety signs to roadways; establishment of better connections between the Project Site, BART, and other key city features; and building of bikeways.

Existing City of San Bruno Zoning Ordinance (2019)

The San Bruno Zoning Ordinance controls development through the establishment of zoning districts and accompanying regulations for permitted and conditional uses and standards for development, such as height, bulk, setback, and lot coverage. Current zoning districts in the Project Site are Community Office (C-O), General Commercial (C), and Planned Development (P-D).

As seen on Figure 2-6 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the majority of the Project Site is zoned P-D, which is meant to support a mix of uses or unusual density, building intensity, or design that will produce an environment and land uses superior to that which would result from the usual zoning regulations. Any and all compatible land uses consistent with the San Bruno General Plan are conditional uses in a P-D district, provided such uses have been designated on a development plan and approved by the Planning Commission and City Council. The City's P-D Zoning Ordinance (Section 12.96.190) does not specify development standards (e.g., lot coverage, minimum building sites, maximum building heights, minimum site widths, and setbacks), which also are approved as part of the development plan. A separate Planned Development Permit is required, based on the approved development plan.

The portion of the Project Site east of Elm Avenue is zoned C-O. The intent of the C-O district is to provide a mix of office and professional uses and hotels, with retail uses permitted as ancillary uses. The maximum lot coverage permitted by all structures is 40 percent. Minimum parcel size permitted is 20,000 square feet. Maximum building height is 35 feet, although heights of 50 feet may be obtained with approval of a conditional use permit.

The southwest corner of Bayhill Drive and Cherry Avenue, and the western end of the Project Site, are zoned C. The intent of the C district is to provide for a mix of retail, food stores, personal and professional services, and professional and administrative uses. The maximum lot coverage permitted by all structures is 80 percent. Maximum building height is 50 feet or three stories, whichever is more restrictive.

City Ordinance No. 1284

Ordinance No. 1284, adopted in June 1977 to implement a voter-approved ballot initiative governing new development in the entire city, sets height limits on all new buildings within San Bruno to 50 feet or three stories, unless otherwise approved by a majority of the city's voters at a regular or special election. Codified in Chapter 12.26 of the San Bruno Municipal Code, Ordinance No. 1284 also restricts the construction of multi-story parking structures and limits development that affects streets in local scenic corridors. The 50-foot height limit and restriction on building new above-ground multi-story parking structures continue to apply to the Project Site. None of the streets within scenic corridors are within or adjacent to the Project Site. Furthermore, Ordinance No. 1284 restricts the increase of residential densities in areas that were zoned residential in 1974. No portion of the Project Site was zoned residential in 1974.

3.6.1.2 Environmental Setting

Regional Setting

The Project Site is in the City of San Bruno between the coastal range and San Francisco Bay along the northern Peninsula.

San Bruno is a 5.5-square-mile city in northern San Mateo County on the eastern side of the San Francisco Peninsula. San Bruno is approximately 12 miles south of San Francisco, immediately south of the City of South San Francisco, immediately north of the City of Millbrae, and west of SFO. The city is bounded by

Highway 101 on the east and the Coast Ranges on the west. The older, eastern half of San Bruno contains a diversity of land uses and residential types, while the western half is composed primarily of single-family subdivisions. The city is connected to major transportation corridors by Highway 101, Interstates 280 and 380, and El Camino Real.

Project Site

As shown on Figure 2-3 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Project Site comprises a 92.2-acre area in the central-eastern portion of San Bruno, bounded by Interstates 280 to the west and 380 to the north, properties fronting El Camino Real to the east, and San Bruno Avenue West to the south from Elm Avenue to Interstate 280. The Project Site includes the Bayhill Office Park and the Bayhill Shopping Center. The eastern boundary of the Project Site is approximately 0.35 mile west of the San Bruno Caltrain Station and 0.50 mile southwest of the San Bruno BART Station. The Project Site has a moderate slope, with generally decreasing elevations from Cherry Avenue toward El Camino Real. Topographic elevations range from approximately 160 feet above sea level at the western portion of the Project Site to approximately 60 feet above sea level at the eastern portion of the Project Site.

As shown in Table 2-1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Project Site is currently occupied by various land uses, including office, retail/commercial, hotel, and streets/ROW. The majority, approximately 61 percent, of the Project Site is occupied by office uses (including associated surface parking lots), with approximately 11 percent occupied by retail/commercial uses (including associated surface parking lots). The remainder is occupied by a hotel (including associated surface parking lots), streets/right-of-way, SFPUC easements, a stand-alone parking lot, and a small amount of vacant land. Existing land uses on the Project Site are further described in Section 2.3.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR.

Existing uses adjacent to the Project Site include low-density residential neighborhoods to the south; small-scale local retail uses, hotels, and single-family residential to the east alongside and beyond El Camino Real; a mix of public parks, high-density residential neighborhoods, and public uses to the north, separated from the Project Site by Interstate 380; and residential uses to the west, separated from the Project Site by Interstate 280.

Phase I Site

As shown in Figures 2-3 and 2-4 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the 8.39-acre YouTube Phase I Development Site (Phase I Site) is within the Project Site and is composed of two separate parcels (Assessor's Parcel Numbers [APNs] 020-015-020 and 020-011-230) separated by Grundy Lane and bordered by Cherry Avenue to the west, Interstate 380 to the north, Bayhill Drive to the south, and adjacent office properties to the east. The northern parcel (APN 020-011-230) contains a 94,465-square-foot, three-story building at 1000 Cherry Avenue, which is on the western portion of its 4.90-acre parcel. The eastern portion of the parcel is developed with surface parking with associated landscaped elements. The southern parcel (APN 020-015-020) contains a 102,252-square-foot, six-story building at 900 Cherry Avenue, which is on the western side of its 3.49-acre parcel. The eastern portion of this parcel is developed with surface parking with associated landscaped elements. Landscaped areas are interspersed throughout the parking areas and along Interstate 380 to the north and Cherry Avenue to the west. The majority of the Phase I Site is flat with a slight downward slope to the east-northeast.

3.6.2 Environmental Impacts

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

3.6.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below.

- Physical division of an established community.
- Conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect that results in a significant environmental impact.

3.6.2.2 Methodology and Approach

CEQA requires that an EIR consider whether a proposed project may conflict with any applicable land use plan, policy, or regulation that was adopted for the purpose of avoiding or mitigating an environmental impact. This environmental determination differs from the larger policy determination of whether a proposed project is consistent with a jurisdiction's general plan. The former determination, which is intended for consideration in a CEQA document, is based on, and limited to, a review and analysis of environmental effects. The latter determination, by comparison, is made by the decision-making body of the jurisdiction and is based on the jurisdiction's broad discretion to assess whether a proposed project would conform to the policies and objectives of its general plan/specific plan as a whole. In addition, the broader general plan consistency determination takes into account all evidence in the record concerning the project characteristics, its desirability, and its economic, social, and other non-environmental effects.

Conflicts of a project with land use policies do not, in and of themselves, constitute significant environmental impacts. Policy conflicts are considered environmental impacts only when the policies themselves were adopted for the purpose of avoiding or mitigating an environmental effect. Such conflicts constitute significant environmental impacts only when the resulting direct environmental effects are significant.

Buildout Scenario

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Project, resulting in 573 multi-family residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed.

For the analysis of potential impacts related to the physical division of an established community (Impact LU-1), the Maximum Office Scenario is analyzed. This scenario is assumed to have a greater potential for impact because office uses tend to result in larger building footprints and provide fewer public connections between buildings and sites than residential development.

The Maximum Office and Maximum Housing Scenarios may result in different types and magnitudes of environmental impacts. However, for the analysis of conflicts with an applicable land use plan, policy, or regulation of an agency with jurisdiction over a project adopted for the purpose of avoiding or mitigating an environmental effect, the reader should assume that the environmental impacts discussed refer equally to either scenario, unless otherwise stated.

3.6.2.3 Impacts and Mitigation Measures

Impact LU-1a. The Project would not physically divide an established community (Project: Less Than Significant).

Impact LU-1b. The Phase I Development would not physically divide an established community (Phase I Development: Less Than Significant).

Project

The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge, that would affect mobility within an existing community or between a community and outlying area. As discussed under *Buildout Scenario,* above, this analysis evaluates the Maximum Office Scenario in terms of the physical division of an established community under the assumption that office uses are more likely to produce larger building footprints and provide fewer public connections between buildings and sites than residential development.

The Project does not involve the construction of any of the linear features discussed above and would not remove any means of access. The Project also includes multimodal transportation improvements, streetscape enhancements, and policies relating to multi-modal accessibility, which would enhance connectivity within the Project Site and improve linkages with surrounding areas. By improving connectivity and land use transitions, the Project would make it easier for people to travel throughout the community, city, and region.

Proposed improvements to existing roadways and infrastructure would not introduce new physical divisions. Instead, the proposed improvements would provide better multi-modal connectivity between existing surrounding residential communities, the Project Site, and local or regional destinations. For instance, proposed bike lanes on Bayhill Drive, San Bruno Avenue, Trager Avenue, and Cherry Avenue, as well as sidewalk and crossing enhancements on these streets, would more directly connect neighborhoods surrounding the Bayhill Office Park, thus providing more efficient pedestrian and bicycle connections across the Project Site.

While the development of new office buildings under the Project may result in larger building footprints than what is existing within the Project Site, the Specific Plan calls for improvements to vehicle roadways, transit access, and bicycle and pedestrian facilities that would improve connectivity. The Specific Plan also includes policies for prioritizing and facilitating transit and pedestrian connectivity between the Plan Area and local mass transit services, which would further promote connectivity between the Plan Area and the larger community.

In addition, the Project would promote infill development in an existing urbanized area. The Project's goals, policies, land use classifications, and development standards were designed with the intent to promote compatibility with existing uses. Rather than divide the existing community, the Project would reduce the potential for conflict between differing land uses through streetscape improvements and urban design policies that would apply to new development, including:

- <u>Streetscape Improvements:</u> Streetscape improvements would include the provision of Class II buffered bike lanes and Class III bike sharrows (Cherry Avenue, Grundy Lane, Traeger Avenue, Bayhill Drive, Elm Avenue, San Bruno Avenue), creation of pedestrian refuges and bulb-outs (Cherry Avenue, Bayhill Drive, Elm Avenue, San Bruno Avenue), sidewalk widening (Grundy Lane, Traeger Avenue, Elm Avenue, San Bruno Avenue), and installation of planting strips (Grundy Lane, Bayhill Drive, Elm Avenue, San Bruno Avenue).
- <u>Building Design:</u> Chapter 3, *Urban Design and Public Realm*, of the Specific Plan includes a range of policies that require, for example, development to enhance adjacent public and private spaces and buildings to be oriented to frame streets as public spaces, and disallow blank walls along street frontages. Specifically, Policies 3-18 through 3-23 address building orientation, composition, materials, development types, and roofscape, and Policy 3-24 incorporates the Plan's Building Design Guidelines for detailed design of massing, windows, wall surfaces, and architectural detailing.

As the Project would not introduce any physical barriers to the Project Site and would likely improve connectivity within the community through policies and improvements, the impact would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as the impacts of the Project as a whole because the Phase I Development is a component of the Project, which would not introduce any physical barriers to the surrounding community. Phase I Development impacts related to the physical division of an established community would therefore be ***less than significant***. No mitigation measures are required.

Impact LU-2a. The Project would not result in an environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (Project: Less Than Significant with Mitigation).

Impact LU-2b. The Phase I Development would not result in an environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (Phase I Development: Less Than Significant with Mitigation).

Regional Plans

Plan Bay Area

Project

As discussed in Section 3.6.1.1, *Regulatory Setting*, Plan Bay Area 2040 promotes compact, mixed-use, infill development within walkable/bikeable neighborhoods close to public transit, jobs, schools, shopping, parks, recreation, and other amenities in order to reduce GHG emissions and adverse health impacts; increase housing opportunities, employment opportunities, access to affordable housing, and non-automotive mode share and the effectiveness of the transportation system; and focus development within the existing urban footprint.

Plan Bay Area 2040 also promotes the reduction of GHG emissions through the identification of Transit Priority Areas, or areas within 0.5 mile of a major transit stop such as an existing or planned rail station or bus routes with headways of 15 minutes or better during morning and evening peak periods. Approximately one-third of the Project Site is within a Transit Priority Area. While the entirety of the Project Site does not fall within a Transit Priority Area, it nonetheless encourages the concentration of development to areas within and around Transit Priority Areas and is thus consistent with the general policy direction of Plan Bay Area 2040.

The Project is consistent with the key objectives of Plan Bay Area 2040, including the goal of fostering compact infill development and jobs in proximity to transit to reduce vehicle miles traveled and GHG emissions. Furthermore, the Project would be located on infill sites within an urbanized area and focus growth within a PDA. The Project also calls for pedestrian- and bicycle-friendly streets within the Project Site, while proposed land use classifications provide for compact, jobs-generating development close to transit. The Project would provide for a net increase in jobs served by regional transit via the Caltrain and BART stations in a configuration intended to reduce reliance on automobiles. These features of the Project are consistent with the goals of Plan Bay Area 2040.

The proposed housing and mixed-use overlays would provide a new opportunity for housing to be developed on the Project Site, a location close to employment centers and transit in which no housing currently exists. As discussed in Section 3.8, *Population and Housing*, of this ~~Draft~~ EIR, population growth anticipated to occur as a result of the Project would be within the range of anticipated city growth under ABAG's *Projections 2040*. Therefore, impacts of the Project related to conflicts with Plan Bay Area 2040 would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as the impacts of the Project as a whole because the Phase I Development is a component of the Project, which would be consistent with the goals of Plan Bay Area 2040. Phase I Development impacts related to conflicts with Plan Bay Area 2040 would therefore be ***less than significant***. No mitigation measures are required.

Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport

Project

As discussed above, the ALUCP for the County outlines the types of land uses that are compatible with the SFO. The determination of consistency of the Project with the ALUCP considers issues such as general compatibility, safety, height, and noise. Pursuant to State law, when a general plan amendment and/or zoning amendment are proposed within AIA Area B of an adopted Comprehensive Land Use Plan, a referral must be made to the San Francisco Airport Land Use Commission for a consistency determination. A consistency determination from the County will be required for the Project to be approved.

Safety. The Project Site is not within any of the ALUCP's established Safety Compatibility Zones; therefore, none of the safety policies and corresponding land use restrictions are applicable to the Project, and they are not discussed further.

Height Limitations. The Project Site does not fall within any of the airport's critical aeronautical surfaces. Therefore, development at the Project Site is not affected by height clearances established in the ALUCP.

Noise and Notification. As discussed above in Section 3.6.1.1, *Regulatory Setting*, the ALUCP also includes CNEL noise contours, which designate areas where noise exposure is high enough to warrant land use controls to promote noise compatibility. As shown in Figure 3.7-1 in Section 3.7, *Noise*, of this ~~Draft~~ EIR, the airport's 65 dB CNEL noise contour crosses the northeast corner of the Project Site. The 2012 ALUCP designates recreational, commercial, and industrial/production land uses as compatible uses within the 65 dB CNEL contour. Residential land uses are designated as conditionally compatible uses within the 65 dB CNEL contour, meaning that the use must be sound-insulated to achieve an indoor noise level of 45 dB CNEL or less from exterior sources to be considered compatible. The Project proposes office and hotel uses for the portion of the site within the 65 dB CNEL noise contour, which are not restricted uses.

Overnight uses such as hotels and residential uses could experience some noise disturbances from aircraft departure. However, these noise disturbances would be mitigated by interior noise requirements as stipulated by the 2019 California Building Code and San Bruno General Plan (see Section 3.7, *Noise*, of this ~~Draft~~ EIR for additional details). In addition, Section 11010 of the California Business and Professions Code requires individuals offering subdivided property for sale or lease to disclose the presence of all existing and planned airports within 2 miles of the property or within an established AIA. Given the Project Site's proximity to SFO and location within an AIA, real estate disclosure notices are required in any notice of intention to offer the properties for sale within the Project Site.

Given the Project's consistency with the ALUCP's policies regarding safety, heights, noise, and notification, the Project would result in a ***less-than-significant*** land use impact with respect to the ALUCP's policies. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as the impacts of the Project as a whole because the Phase I Development is a component of the Project. Given that the Phase I Site is outside SFO's 65 dBA noise contour and the Project is consistent with the ALUCP's policies regarding safety, heights, noise, and notification, the impacts related to consistency with the ALUCP's policies would be ***less than significant.*** No mitigation measures are required.

SFPUC Interim Water Pipeline Right of Way Use Policy

Project

No new development is currently planned for the portion of the Project Site that overlaps with the two SFPUC easements (refer to Figure 3.6-1) other than the Phase I Development improvements evaluated below. Should any property owner wish to develop within either of these areas in the future, the development would be subject to standard SFPUC review and approval procedures. Project sponsors would submit conceptual design plans to the SFPUC Review Committee. This review process would identify and ameliorate any inconsistencies between proposed development and SFPUC's water pipeline easement use policy. Consistency with relevant SFPUC policies would be determined by SFPUC in a site-level analysis. As such, potential impacts associated with inconsistency with the SFPUC Interim Water Pipeline Right of Way Use Policy would be ***less than significant***. No mitigation measures are required.

Phase I Development

The Phase I Development includes straightening of Grundy Lane, which would result in the abandonment of the northern portion of Elm Avenue, which contains an SFPUC water pipeline easement. The Phase I Development would be subject to SFPUC's review procedures discussed above in the project analysis. Impacts related to inconsistencies with SFPUC policies would therefore be ***less than significant.*** No mitigation measures are required.

SFPUC Integrated Vegetation Management Policy

Project

The SFPUC Integrated Vegetation Management Policy outlines regulations regarding appropriate planting and vegetative removal and maintenance policies to occur within each zone of an easement. Specifically, only grass, flowers, and ground cover may occur within the first 15 feet of existing and future pipelines; small shrubs are permitted 15 feet away from pipelines and beyond; and small trees are permitted 25 feet or further from pipelines. Specific Plan Policies 5-5 and 5-17 call for the use of water-efficient landscaping throughout the Project Site. Further, for projects occurring within an SFPUC easement, project sponsors would submit conceptual design plans to the SFPUC Review Committee in accordance with standard SFPUC review and approval procedures. Should a future property manager or developer seek to install an extensive landscaping program in any SFPUC easement, compatibility with the SFPUC's Integrated Vegetation Management Policy would be assessed by SFPUC in a site-level analysis. This review process will identify and ameliorate any inconsistencies between proposed development and SFPUC's Integrated Vegetation Management Policy. SFPUC policies also state that issuance of a revocable license for use of its easement is subject to CEQA compliance. Impacts associated with inconsistency with the SFPUC Integrated Vegetation Management Policy therefore would be ***less than significant***. No mitigation measures are required.

Phase I Development

The northern portion of Elm Avenue, the only part of the Phase I Development that falls within one of SFPUC's easements, is proposed to be abandoned. Any future landscaping to occur in this area would be subject to site-level analysis for compatibility with SFPUC requirements, as described above in the project analysis. For the reasons stated above, impacts related to inconsistencies with SFPUC policies would be ***less than significant*** for the Phase I Development. No mitigation measures are required.

Local Plans and Regulations

Local land use plans and regulations that cover the Project Site include the San Bruno General Plan and Municipal Code. As the Project is an update to existing local policies and land use classifications, there are cases in which it differs from existing standards and regulations. However, the Project's policies and land use classifications are generally consistent with the General Plan's land use policies and, if adopted, the Project would provide for amendments to ensure that the General Plan and Municipal Code are revised accordingly. The following analysis evaluates whether the Project would be inconsistent with a regulation adopted for the purpose of avoiding or mitigating an environmental effect.

City of San Bruno General Plan

Project

Land Use Classifications. The Project includes two amendments to the General Plan to ensure consistency between the Project and the General Plan.

The current General Plan classification for much of the Project Site is Regional Office. This classification does not permit residential uses. Because the Project would allow for housing in certain locations within the Project Site, the Specific Plan includes a proposed new General Plan land use classification: Bayhill Regional Office (BRO). This proposed General Plan classification would allow for residential uses. The newly permitted residential uses would be located in the southern part of the Project Site along San Bruno Avenue and would allow for additional housing to support the anticipated increase in jobs, while maintaining the Bayhill Office Park's current campus environment. Small convenience retail uses, personal services, eating and drinking establishments, and childcare would be permitted as ancillary uses. The General Plan Land Use Diagram would be updated to reflect the creation of this new land use classification and its application to the Project Site. The General Plan would be amended to specify residential density, FAR, and discretionary offsite improvements and design amenities for the BRO classification. The potential environmental effects that could result from developing the proposed new land uses on the Project Site are evaluated throughout Chapter 3, *Environmental Impact Analysis*, of this ~~Draft~~ EIR.

The southwestern portion of the Project Site has a current General Plan classification of Neighborhood Commercial. While the current General Plan conditionally allows residential uses in areas with this classification, the General Plan limits those residential uses to the second floor. The Specific Plan allows additional flexibility in the provision of residential uses and would allow them on the ground floor so long as the overall amount of retail use on the site is not reduced. Accordingly, the Project includes a proposed new General Plan land use classification: Bayhill Neighborhood Commercial (BNC). This proposed General Plan classification would allow for multi-family housing, commercial uses, and mixed-use development, without a restriction that housing be located on the second floor or higher. By requiring that the existing amount of retail use be retained, the Project would continue to retain the same amount of neighborhood commercial uses in a mixed-use environment. The General Plan Land Use Diagram and map would be updated to reflect the creation of this new land use classification and its application to the Project Site. The General Plan would be amended to specify residential density, FAR, and discretionary offsite improvements and design amenities for the BNC classification. The potential environmental effects that could result from developing the proposed new land uses on the Project Site are evaluated throughout Chapter 3, *Environmental Impact Analysis*, of this ~~Draft~~ EIR.

The proposed new land use classifications are consistent with existing surrounding development patterns and with several goals of the General Plan to expand the Bayhill Office Park, such as allowing for the addition of ancillary commercial uses (General Plan Land Use Element Goals 51 and 52) and attracting and retaining jobs in the area (General Plan Economic Development Policies B and D).

The Specific Plan recommends implementation steps to reconcile potential inconsistencies between the General Plan, Specific Plan, Municipal Code, and Zoning Ordinance. The proposed General Plan Amendment, including the land use classifications described above, would meet the overall intent of the land use policies as described in detail below and in Table 3.6-2. Given that the Project is generally consistent with the General Plan's goals for the Project Site, as evaluated below, and includes provisions to update the General Plan and Zoning Ordinance consistent with State law to ensure consistency as discussed above, impacts from implementation of the Project related to conflicts with local plans and regulations adopted for the purpose of avoiding or mitigating an environmental effect would be ***less than significant***. No mitigation measures are required.

Goals and Policies. Table 3.6-2, presented at the end of this section, outlines the General Plan and Housing Element goals and policies that have been identified as applicable to the Project and adopted for the purpose of avoiding or mitigating an environmental effect, and describes environmental effects for both the Project and Phase I Development. Table 3.6-2 includes a determination of "Consistent" or "Inconsistent" for each policy. The determination of whether the Project would conflict with applicable policies is based on the environmental analysis provided in the applicable resource sections of this ~~Draft~~ EIR. For policies found to be potentially inconsistent, the table then identifies the environmental effects for both the Project and Phase I Development, and potential mitigation measures.

As described in Table 3.6-2 below, the Project was found to be consistent with the Land Use and Urban Design, Economic Development, Health and Safety, Public Facilities and Services, and Housing Elements of the General Plan. The Project was found to be inconsistent with level of service (LOS) policies set forth in the General Plan. However, while the City should consider this question as it evaluates Specific Plan and Phase I Development approvals for policy consistency, vehicle delay is not considered to be an environmental impact under CEQA (see Section 3.10, *Transportation*, for further discussion). The Project was found to be consistent with the General Plan's policies that seek to improve conditions for all transportation modes and improve connections to transit corridors and stations. The Project is thus considered to be mostly consistent with the Transportation Element of the General Plan. The Project's compatibility with the Open Space and Recreation and Environmental Resources and Conservation Elements was determined to be consistent with mitigation.

Table 3.6-2 shows some inconsistencies with the General Plan. However, these inconsistencies are either not associated with any negative environmental impact under CEQA or would be resolved with appropriate mitigation measures. The Project would thus be consistent with the majority of applicable goals, policies, and actions, resulting in ***an impact that is less than significant with mitigation*** ~~a~~ ***~~less-than-significant impact~~***~~. No mitigation measures are required~~.

Phase I Development

The Phase I Development was found to be consistent with the Land Use and Urban Design, Economic Development, Open Space and Recreation, Health and Safety, Public Facilities and Services, and Housing Elements of the General Plan. Using the same rationale for the consistency analysis of the Project, the Phase I Development's compatibility with the Transportation Element is classified as inconsistent with LOS policies set forth in the General Plan. However, while the City includes this question of vehicle delay and the General Plan's LOS policies in the Project in its planning considerations, vehicle delay is not considered to be an environmental impact under CEQA (see Section 3.10, *Transportation*, for further discussion). The Phase I Development's compatibility with the Environmental Resources and Conservation Element was found to be consistent with mitigation.

Given that the Project is consistent with the San Bruno General Plan's applicable goals, policies, and actions (with the exception regarding LOS policy discussed above), Phase I Development impacts due to conflicts with the General Plan would be ***less than significant with mitigation.*** ~~No mitigation measures are required.~~

City Ordinance No. 1284

Project

No part of the Project Site was zoned for residential development in 1974; the Project Site is therefore not subject to the residential density increase restrictions contained in Ordinance No. 1284. As discussed under *Buildout Scenario*, development taking place under the Project would be subject to the height restrictions and limitations on above-ground parking structures imposed by Ordinance No. 1284. The majority of Project Site parking would be located in private, underground parking structures—no above-ground parking structures are permitted as part of the Project. Given that the Project is consistent with all of the development restrictions imposed by Ordinance No. 1284, impacts due to conflicts with this ordinance would be ***less than significant.*** No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Project as a whole because the Phase I Development is within the Project Site area, and subject to the Project's proposed land uses and policies. Given that the Project is consistent with City Ordinance No. 1284, Phase I impacts due to conflicts with City Ordinance No. 1284 would be ***less than significant.*** No mitigation measures are required.

City of San Bruno Walk 'n Bike Plan

Project

The Project's circulation and access goals include developing a well-defined and connected mobility network for all travel modes. The Project calls for an inviting pedestrian environment that promotes connectivity to surrounding neighborhoods, downtown, and regional transit stations; a bicycle network that is accessible and attractive to riders of all ages and riding abilities; and safe mobility. The Project would add Class III sharrows on Cherry Avenue north of Bayhill Drive, on all of Grundy Lane, and on Elm Avenue north of Bayhill Drive; and Class II bike lanes on Cherry Avenue south of Bayhill Drive, to Traeger Avenue, to Elm Avenue south of Bayhill Drive, to Bayhill Drive, and to San Bruno Avenue between El Camino Real and Cherry Avenue. The Project imposes minimum standards for the supply and design of bicycle parking to be provided by multi-family residential, retail/commercial/dining, and office and hotel establishments.

The Project would establish first-mile/last-mile connections along Bayhill Drive and San Bruno Avenue to facilitate pedestrian access to major transit services. The Project also provides for pedestrian comfort and mobility through the provision of crosswalk improvements, pedestrian refuges and bulb-outs, and reductions in corner curb radii.

These elements of the Project are consistent with the Walk 'n Bike Plan's overarching goals of making "walking and biking in San Bruno safer and easier for both transportation and recreation," as well as the specific goals of reducing safety risks to pedestrians and cyclists, making walking conditions more pleasant, and implementing a citywide network of designated bikeways that improve connectivity to major transit hubs and employment centers.

As the Project contains policies and specific mobility improvements that support the goals and objectives of the Walk 'n Bike Plan, and does not contain any policies that would interfere with the implementation of the goals or projects described in the Walk 'n Bike Plan, impacts due to conflicts with the Walk 'n Bike Plan would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan as a whole because the Phase I Development is within the Project Site area, and subject to the Project's proposed land uses and policies. Given that the Project is consistent with the Walk 'n Bike Plan, Phase I Development impacts due to conflicts with the Walk 'n Bike Plan would be ***less than significant.*** No mitigation measures are required.

City of San Bruno Zoning Ordinance

Project

The Project proposes two new zoning districts to accomplish the Project objective to provide new office and accessory space. These districts are as follows:

Bayhill Regional Office (BRO): The BRO district accommodates regional offices in a campus-style setting or office park. Development would be designed to permit cohesive environments that encourage safe and pleasant pedestrian movement, connectivity, open spaces and plazas, and cohesive streetscapes and landscaping, as articulated in policies and standards in the Specific Plan. Small convenience retail uses, personal services, and hotels (with a Conditional Use Permit) are also permitted.

Bayhill Neighborhood Commercial (BNC): This district would apply to the area currently defined in the General Plan as Neighborhood Commercial and would continue to allow the establishment of local-serving neighborhood commercial needs and attract patronage from adjacent offices. This district would permit convenience and retail commercial uses including, but not limited to, grocery and drug stores; eating and drinking establishments; apparel and accessory stores; personal and business services; professional and medical offices; childcare; commercial recreation; and financial, insurance, and real estate offices.

The Project provides for the creation of two new overlay districts: Residential and Mixed-Use. These overlay districts would permit additional uses while preserving underlying land use districts.

The Residential Overlay provides for residential development as an option on two properties (801–851 Traeger Avenue and 1111 Bayhill Drive) along the San Bruno Avenue frontage within the BRO district. Housing may be provided combined with office uses permitted under the base BRO district or as a standalone use, replacing office buildings existing as of 2019. As illustrated in Table 2-4, *Regional Office Development Equivalents for Residential Land Use*, in Chapter 2 of the Specific Plan (Appendix 2 of this ~~Draft~~ EIR), the amount of office square footage allowed on these sites would be reduced when housing is built. The development of up to 363 dwelling units is allowed.

The Mixed-Use Overlay allows horizontal and vertical mixed-use residential and commercial development on properties in the BNC district. Residential development is permitted provided that the total current amount of commercial use in the BNC district is not reduced. Housing may be developed in standalone buildings or on top of commercial uses. Up to 210 housing units are permitted throughout the Bayhill Shopping Center and adjacent property at 899 Cherry Avenue.

The Project's proposed Implementation Program would initiate zoning amendments to reconcile inconsistencies between the current Zoning Ordinance and the proposed adoption of the Specific Plan and Municipal Code (Zoning) amendments. Therefore, given that the Project includes provisions to update the Zoning Ordinance consistent with State law to ensure consistency as discussed above, impacts from implementation of the Project related to conflicts with the City of San Bruno Zoning Ordinance would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan as a whole because the Phase I Site is within the Project Site area, and subject to the Project's implementation program. Given that the Project's implementation program includes provisions to update the General Plan and Zoning Ordinance consistent with State law to ensure consistency, Phase I Development impacts due to conflicts with the Zoning Ordinance would be ***less than significant.*** No mitigation measures are required.

Conclusion

The Project was evaluated for consistency with regional plans Plan Bay Area 2040 and the ALUCP. Potential impacts associated with inconsistency with Plan Bay Area 2040 were found to be ***less than significant*** because the Project supports several of Plan Bay Area 2040's key objectives, including fostering compact development and jobs in proximity to transit, focusing growth within a PDA, supporting pedestrian- and bicycle-friendly streets, and opening up new opportunities for housing, while remaining consistent with ABAG's population projections for the region. The Project was found to be consistent with the ALUCP's policies regarding safety, heights, noise, and notification. The Project's potential impacts regarding inconsistency with the ALUCP's policies were thus found to be ***less than significant***. The Phase I Development's potential impacts associated with either of the above plans were found to be ***less than significant*** because the Phase I Site is contained within the Project Site and would be subject to the same development standards and policies. No mitigation measures are required.

The Project was evaluated for consistency with the following local plans and regulations: the San Bruno General Plan, City Ordinance No. 1284, City of San Bruno Walk 'n Bike Plan, and City of San Bruno Zoning Ordinance. Potential impacts associated with inconsistency with the existing General Plan and the Zoning Ordinance were found to be ***less than significant with mitigation,*** because with implementation of the EIR mitigation measures the Project would be consistent with the General Plan and the Zoning Ordinance with amendments as proposed in the Specific Plan, and the Project would comply with the height and other requirements of City Ordinance No. 1284. The Project includes mobility and parking policies that align with the Walk 'n Bike Plan and would improve the safety, convenience, and comfort of walking and biking across San Bruno; its impact is therefore ***less than significant.*** The Phase I Development's potential impacts associated with any of the above plans were found to be ***less than significant with mitigation*** because the Phase I Site is contained within the Project Site and would be subject to the same development standards and policies.

3.6.3 Cumulative Impacts

The cumulative analysis examines the effects of the Project, inclusive of the Phase I Development, in the relevant geographic area in combination with those of other current projects, probable future projects, and projected future growth. A list of cumulative projects is found in Section 3.0, *Introduction to the Analysis*, Table 3.0-1, and shown on Figure 3.0-1. Included in that list is APN 020-012-160 (vacant parcel west of 901 Cherry Avenue). This project could be constructed under an existing, fully entitled development agreement or, if the development agreement expires (as of ~~February 2021~~ <u>August 2021</u>), as part of buildout under the Project. Therefore, it is conservatively evaluated in this EIR as both a component of the Project and a cumulative project. As stipulated by Policy 2-3 in the Specific Plan, if the project is developed under the existing development agreement, the square footage allocated to this parcel under the Specific Plan would be reduced by the amount developed under the development agreement.

Impact C-LU-1. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not physically divide an established community (Project: Less Than Significant; Phase I Development: Less Than Significant)

As discussed above, the physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge, that would affect mobility within an existing community or between a community and outlying area.

The Project, inclusive of the Phase I Development (a component of the Project), together with the cumulative projects identified in Table 3.0-1 would not introduce any physical features that could divide established communities, nor would it remove a means of access among established communities. Cumulative impacts related to the division of an established community are therefore ***less than significant.*** No mitigation is required.

Impact C-LU-2. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would result in an environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, but conclusions about the significance of secondary environmental impacts would be speculative (Project, inclusive of Phase I Development: No Significant Impact Identified).

As discussed above, CEQA requires an EIR to consider whether a proposed project may conflict with any applicable land use plan, policy, or regulation that was adopted for the purpose of avoiding or mitigating an environmental impact. This environmental determination differs from a determination of whether a proposed project is consistent with a jurisdiction's general plan. Even if inconsistent, the policy inconsistency may not relate to an environmental impact.

With regard to consistency with regional plans (Plan Bay Area 2040), cumulative impacts from development would occur if the growth associated with a particular project, in combination with other projects in the jurisdiction, was not accounted for in a given jurisdiction's planning documents. The plans of the Bay Area's jurisdictions are one of the bases for regional growth projections by ABAG, and regional growth projections are the foundation for regional plans.

As discussed in Section 3.8, *Population and Housing*, Plan Bay Area 2040 calls for an increasing percentage of Bay Area growth to occur as infill development in areas with good transit access and the services necessary to accommodate daily living in proximity to housing and jobs. Because of the regional nature of population and housing effects, and because the General Plan's growth forecast does not extend to the Specific Plan's buildout year of 2040, Plan Bay Area 2040 projections for the City of San Bruno represent the context for the cumulative analysis.

Section 3.8, *Population and Housing*, includes a cumulative environmental impact assessment regarding the Project's consistency with the population projections provided by Plan Bay Area 2040. The section concludes that, within the City of San Bruno, the increases in the number of residents under the Project, in combination with the reasonably foreseeable future projects and background growth, would be consistent with the population and housing growth projected within the city by regional forecasts. The Project and most of the cumulative projects in San Bruno would be located on infill sites and in proximity to transit. Therefore, cumulative impacts related to inconsistency with regional planning initiatives occurring within the City of San Bruno would be less than significant.

However, as Section 3.8, *Population and Housing*, describes, the Project would significantly contribute to population growth taking place across the Bay Area because it would result in an increase in population and housing demand outside the City of San Bruno that is not considered in current planning projections. There would be greater pressure on communities within the Bay Area to grow more than planned; this additional growth may result in secondary environmental impacts due to additional housing construction as well as the expansion of roads, utilities, infrastructure, and public services. Meeting some of the Bay Area's cumulative housing demand in outlying areas can result in similar secondary environmental impacts, as well as conversion of agricultural land and open space, and generation of additional vehicle miles traveled, GHG emissions, and air pollution.

However, due to the difficulty of identifying the specific nature, extent, and significance of secondary physical impacts on the environment, the cumulative analysis in Section 3.8, *Population and Housing*, concludes that there is insufficient evidence to determine the significance of any potential environmental impact without engaging in speculation. As such, although a conclusion can be made that the Project would result in unplanned population and housing growth outside the City of San Bruno, a significance determination concerning the specific secondary physical impacts on the environment due to unplanned growth outside of San Bruno is not possible; therefore, no considerable contribution to cumulative significant impacts is identified.

Furthermore, addressing the impacts of additional population growth and housing demand outside the city is not within the jurisdiction of the City of San Bruno or within the control of the Phase I Development applicant or future applicants under the Project. Even if a significant impact related to the Project's contribution to growth could be identified without speculation, the City of San Bruno and project applicants have no ability to implement mitigation outside of the City of San Bruno and the Project Site, respectively, and therefore no feasible mitigation has been identified short of dramatically reducing the size of the Project or substantially changing the Project to have a greater balance of employment and housing growth, which would be inconsistent with the Project's purpose and objectives.

3.6.4 References Cited

City of San Bruno. 2009. General Plan. Land Use and Urban Design Element. Available: https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24009. Accessed: February 20, 2019.

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San Francisco Public Utilities Commission. 2015. *SFPUC Interim Water Pipeline Right of Way Use Policy for San Mateo, Santa Clara, and Alameda Counties*. Available at: https://sfwater.org/modules/showdocument.aspx?documentid=14201. Accessed: January 3, 2020.

Table 3.6-1. Comparison of the Project to General Plan Goals and Policies

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase I Development
Land Use and Urban Design Element		
General Consistency	CONSISTENT. Policies in the Land Use and Urban Design Element of the San Bruno General Plan adopted with the purpose of avoiding or mitigating environmental effects include policies that seek to promote infill reuse, intensification, and revitalization within existing developed areas; ensure that new development is sensitive to existing uses and minimizes glare; promote infill and revitalization of the city's shopping centers; and work toward solutions to regional problems of traffic congestion, open space preservation, noise attenuation, environmental hazards, affordable housing, pollution, and growth management. The Land Use and Urban Design Element contains policies LUD-51 to LUD-53 that specifically address the Bayhill Office Park. These policies promote construction of offices on existing surface parking lots in the Bayhill Office Park, allow ancillary commercial uses within the Bayhill Office Park to serve employee needs, and require new office development within the Bayhill Office Park to provide alternative transportation. The Project is consistent with these policies given that it consists of intensification, revitalization, and infill development within a developed area of the city, while permitting employee-serving commercial uses. The Project's focus on improving active transportation that links to regional transit including BART and Caltrain and the inclusion of a housing overlay are consistent with regional transportation and housing policies. Policy LUD-69 of the General Plan establishes a design review requirement for development in visually dominant areas, identified in the General Plan as "visible from all sites." The Project Site does not fall within any area considered to be visually dominant, and therefore would not be subject to this design review.	CONSISTENT. The Phase I Development is consistent with Land Use and Urban Design Element policies adopted with the purpose of avoiding or mitigating environmental effects given that it represents a component of the Project and is within the Project Site area, and the Project is consistent with the policies.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase I Development
Guiding Policy LUD-G: Infill in the Bayhill Office Park with new professional offices, and hotel uses.	CONSISTENT. The Project consists of infill and intensification of development within the Bayhill Office Park with new professional offices. Hotel uses are also permitted under the Equivalency Program (refer to Appendix 4 of this ~~Draft~~ EIR).	CONSISTENT. The Phase I Development consists of infill and intensification of development within the Bayhill Office Park with new professional offices.
Implementing Policy LUD-51: Promote construction of professional and administrative offices on existing surface parking lots in Bayhill Office Park.	CONSISTENT. The Project promotes the construction of offices on existing surface parking lots to accommodate increased intensity of development.	CONSISTENT. The Phase I Development assumes the construction of professional office buildings on existing surface parking lots.
Implementing Policy LUD-52 Allow ancillary commercial uses—such as cafes, health clubs, dry cleaners, sundries, etc—in Bayhill Office Park, to serve employee needs.	CONSISTENT. The Project's proposed allowable land uses include ancillary commercial uses to serve employee needs and reduce the need for driving.	CONSISTENT. The Phase I Development includes an employee cafeteria at the North and South Buildings and may include onsite fitness as well as other ancillary commercial uses.
Implementing Policy LUD-53: Require new office development in Bayhill Office Park to provide alternative transportation, such as shuttles to the BART and Caltrain stations, preferential carpool parking, bicycle storage facilities, and bus shelters.	CONSISTENT. As discussed in Section 3.10, *Transportation*, the Project includes policies for enhancing public and private shuttle service to and from BART and Caltrain stations and requires new office development to provide bicycle storage facilities. The Specific Plan encourages the continuation of YouTube and Walmart's Transportation Demand Management Programs and requires that each employer or property manager within the Project Site develop a customized Transportation Demand Management Program, components of which could include shuttle provision, carpooling, and bicycle amenities.	CONSISTENT. The Phase I Development is a component of the Project, within the Project Site area and subject to the proposed Project policies requiring new office development to provide alternative transportation such as shuttles to the BART and Caltrain stations, preferential carpool parking, bicycle storage facilities, and bus shelters, with a requirement to significantly reduce single-occupant vehicle trips.
Economic Development Element		
Economic Development Element: General Consistency	CONSISTENT. Policies in the Economic Development Element of the San Bruno General Plan adopted with the purpose of avoiding or mitigating environmental effects seek to provide development opportunities that allow for the establishment of jobs within San Bruno commensurate with local residents' education and skills. While this is primarily an economic development and livability goal, providing local jobs commensurate with residents' education and skills also has the potential to reduce employment commute-	CONSISTENT. The Phase I Development provides development opportunities that allow for the establishment of primarily office jobs, as well as the generation of indirect service jobs.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase I Development
	related vehicle miles traveled if it eliminates the need for residents to drive elsewhere for employment. While there can be no guarantee that Plan Area jobs will match San Bruno residents' skills and education, a 2018 American Community Survey found that 42.2% of San Bruno's population aged 25 years or more hold a bachelor's degree or higher, indicating a potentially good match between the characteristics of the resident population and the types of jobs that are likely to be provided. The Project is therefore consistent overall with the intent of the policies of the Economic Development Element.	
Transportation Element		
Transportation Element: General Consistency	CONSISTENT. Policies in the Transportation Element of the San Bruno General Plan adopted with the purpose of avoiding or mitigating environmental effects include policies that seek to provide for efficient, safe, and pleasant movement for all transportation modes including walking and cycling; improve connections to transit corridors and stations to avoid dependence on single-occupant vehicles; consider the introduction of reduced parking standards to reduce incentives for single-occupant vehicles; prohibit surface parking lots from interrupting pedestrian routes or affecting surrounding neighborhoods; prohibit the encroachment of transportation facilities on irreplaceable resources; and preserve and enhance the unique natural features that constitute San Bruno's scenic roadways. As discussed in Section 3.10, *Transportation*, the Project is consistent with the General Plan policies that seek to improve conditions for all transportation modes and improve connections to transit corridors and stations given that it includes the addition of bicycle lanes and facilities and pedestrian improvements such as wider sidewalks and intersection crossing improvements with the goal of increasing connectivity within the Project Site and to surrounding neighborhoods and transit corridors and stations. The Project's parking standards will comply with San Bruno Municipal Code Chapter 12.100 and Parking Design Standards Resolution (effective as of March 26, 2020). The Project does not propose any transportation facilities on irreplaceable resources including open spaces, recreational areas, or historic sites.	CONSISTENT. Given that the Phase I Development is a component of the Project and is within the Project Site area, which has been found to be consistent with the General Plan Transportation Element policy direction, the Phase I Development is also consistent with the General Plan Transportation Element policy direction.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase I Development
	Policy T-B of the General Plan establishes the acceptable LOS for all intersections within the city. In order for signalized intersections to be consistent with Policy T-B, a significant impact on intersection operations would occur if for either peak hour: (1) implementation of the Project would cause the LOS at the intersection to degrade from an acceptable level (LOS D or better) to an unacceptable level or (2) implementation of the Project would cause an intersection with an already unacceptable LOS (LOS E or F) to exhibit an increase in critical-movement delay of four or more intersections. In order for unsignalized intersections to be consistent with Policy T-B, a significant impact on intersection operations would occur if: (1) the intersection or a stop-controlled approach degrades from an acceptable LOS D to an unacceptable LOS E or F, (2) an intersection is already operating below LOS D and the Project would add ten or more vehicle trips to the critical movement of the intersection or stop-controlled approach during the peak hour, and (3) the intersection meets the California Manual on Uniform Traffic Control Devices peak-hour volume traffic signal warrant after Project completion. As demonstrated in the LOS analysis conducted in Appendix X, the Project is inconsistent with the General Plan's LOS policy. However, vehicle delay (LOS) is not considered to be an environmental impact under CEQA (see Section 3.10, *Transportation*, for further discussion).	
Implementing Policy T-71: Provide bicycle parking facilities in Downtown, Bayhill Office Park, BART and Caltrain Stations, The Shops at Tanforan and Towne Center, parks, schools, and other key destinations. Review bicycle standards as part of the Zoning Ordinance Update.	CONSISTENT. The Project contains policies that require the provision of visitor and employee short-term and long-term bicycle parking facilities for all uses.	CONSISTENT. The Phase I Development includes the provision of secured long-term employee bicycle parking on the ground floor of the proposed Phase I buildings. Short-term bicycle parking is provided adjacent to building entrances.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase I Development
Open Space and Recreation Element		
Open Space and Recreation Element: General Consistency	CONSISTENT WITH MITIGATION. Policies in the Open Space and Recreation Element of the San Bruno General Plan adopted with the purpose of avoiding or mitigating environmental effects include policies that seek to develop and maintain parks and recreation facilities. As discussed in Section 3.9, *Public Services and Recreation*, full implementation of the Maximum Housing Scenario would result in a deficit of 7.5 acres of parkland relative to the City's parkland-per-resident goal. Section 3.9 includes a mitigation measure for updating the City's development impact fees, which would generate additional financial resources that could be used for parkland.	CONSISTENT WITH MITIGATION. Development occurring under the Phase I Development would be required to pay development impact fees under the City's Development Impact Fee Ordinance, which would be used for the acquisition or rehabilitation of parkland.
Guiding Policy OSR-C: Provide sufficient public open spaces and landscaped areas within Downtown, Bayhill Office Park, Tanforan District, El Camino Real, and Montgomery Street, as well as residential neighborhoods.	CONSISTENT WITH MITIGATION. The Project provides publicly accessible private open spaces and landscaped areas at a Cherry Avenue Plaza and publicly accessible private greenways along Bayhill Drive, Traeger Avenue, and Elm Avenue. As discussed in Section 3.9, *Public Services and Recreation*, full implementation of the Maximum Housing Scenario would result in a deficit of 7.5 acres of parkland relative to the City's parkland-per-resident goal. Section 3.9 includes a mitigation measure for updating the City's development impact fees, which would generate additional financial resources that could be used for parkland.	CONSISTENT. The Phase I Development provides publicly accessible private open space in the form of the Cherry Avenue Plaza at the northeast corner of Cherry Avenue and Grundy Lane, which is proposed to be redesigned for public access.
Environmental Resources and Conservation Element		
Environmental Resources and Conservation Element: General Policy Consistency	CONSISTENT WITH MITIGATION. Policies in the Open Space and Recreation Element of the San Bruno General Plan adopted with the purpose of avoiding or mitigating environmental effects include policies that seek to protect the natural environment from destruction during new construction or redevelopment within San Bruno, reduce pollution levels within surface water, improve ambient air quality levels, and preserve and enhance historic and cultural resources. As discussed in Chapter 3, *Environmental Impact Analysis*, of this EIR, the Project would not result in significant environmental impacts on agriculture and forestry resources, biological	CONSISTENT WITH MITIGATION. Given that the Phase I Development is a component of the Project and is within the Project Site area, which with mitigation has been found to be consistent with the General Plan Environmental Resources and Conservation Element policy direction, with mitigation the Phase I Development is also consistent with the General Plan Environmental Resources and Conservation Element policy direction.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase I Development
	resources, cultural resources, geology/soils, hazards and hazardous materials, mineral resources, or wildfire. Furthermore, as discussed in Section 3.2, *Air Quality*, the Project would support implementation of the 2017 Clean Air Plan. Accordingly, development under the Specific Plan would not fundamentally conflict with the 2017 Clean Air Plan. With the exception of TAC emissions, with mitigation, emissions would not contribute to a significant level of air pollution such that regional air quality within the San Francisco Bay Area Air Basin would be degraded. Odor impacts would be less than significant.	
Health and Safety Element		
Health and Safety Element: General Policy Consistency	CONSISTENT. Policies in the Health and Safety Element of the San Bruno General Plan adopted with the purpose of avoiding or mitigating environmental effects include policies that seek to reduce the risk of loss of life, injuries, loss of property, or resources due to natural hazards including geologic and seismic, flooding, and wildfire hazards and hazardous materials; and reduce the impact of noise from automotive vehicles, SFO, railroad lines, and stationary sources. The Project would be required to comply with General Plan policies governing health and safety and is therefore consistent with these policies. As discussed in Chapter 3, *Environmental Impact Analysis*, of this EIR, the Project would not result in significant environmental impacts on hazards/hazardous materials, hydrology, or wildfire. Furthermore, as discussed in Section 3.7, *Noise*, the health and environmental impacts associated with noise would be less than significant if accompanied by the appropriate mitigation measures; vibration impacts would be less than significant.	CONSISTENT. Given that the Phase I Development is a component of the Project and is within the Project Site area, which has been found to be consistent with the General Plan Health and Safety Element policy direction, the Phase I Development is also consistent with the General Plan Health and Safety Element policy direction. Furthermore, as discussed in Section 3.7, *Noise*, the health and environmental impacts associated with noise would be less than significant if accompanied by the appropriate mitigation measures; vibration impacts would be less than significant.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase I Development
Public Facilities and Services Element		
Public Facilities and Services Element: General Policy Consistency	CONSISTENT. Policies in the Public Facilities and Services Element of the San Bruno General Plan adopted with the purpose of avoiding or mitigating environmental effects include policies that seek to coordinate the provision of public services to all city residents; ensure that the City's water supply, wastewater collection and treatment, and solid waste collection system provide adequate service; provide adequate public safety service for all San Bruno properties; provide public schooling for youth; and provide library materials and services. The Project would ensure that the stormwater drainage system maintains the health and safety of residents, provides flood control, reduces long-term maintenance and costs, and minimizes pollution; promotes water efficiency measures and drought-tolerant landscaping; and requires that new development demonstrate no net increase in runoff and minimize impervious surface area. The Project contains policies ensuring continued police and fire protection for the Project Site.	CONSISTENT. Given that the Phase I Development is a component of the Project and is within the Project Site area, which has been found to be consistent with the General Plan Public Facilities and Services Element policy direction, the Phase I Development is also consistent with the General Plan Public Facilities and Services Element policy direction.
Housing Element		
Housing Element: General Policy Consistency	CONSISTENT. Policies in the Housing Element of the San Bruno General Plan adopted with the purpose of avoiding or mitigating environmental effects include goals and policies that seek to accommodate regional housing needs through a community-wide variety of residential uses by size, type, tenure, affordability, and location. No identified housing opportunities exist within the Project Site per the San Bruno Housing Element; the Project would allow for housing in locations where it is not currently allowed, thereby increasing the opportunity for the City to meet housing needs, consistent with the intent of the Housing Element. The project is therefore consistent with the policy direction of the Housing Element to accommodate regional housing needs. Section 3.8, *Population and Housing*, discusses the general topic of job growth and housing availability.	CONSISTENT. The Phase I Site is not identified in the Housing Element as a housing opportunity site and therefore its development for offices is not inconsistent with the Housing Element goals and policies that seek to accommodate regional housing needs. Section 3.8, *Population and Housing*, discusses the general topic of job growth and housing availability for the Phase I Development.

Source: City of San Bruno 2009; Dyett and Bhatia 2019.

3.7 Noise

This section describes the environmental and regulatory setting for noise in the city of San Bruno as it pertains to the Bayhill Specific Plan and Phase I Development (Project). It also describes the noise impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ EIR, the Project comprises the Bayhill Specific Plan (Specific Plan) and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are generally analyzed at a program level, and the impacts of the Phase I Development are analyzed at a project level. Impacts resulting from implementation of the Specific Plan, as well as impacts resulting from implementation of the Phase I Development (and mitigation measures, where applicable), are described.

Issues identified in response to the Notice of Preparation (NOP) and revised NOP (Appendix 1) were considered in preparing this analysis. Some NOP comments (specifically, a comment from San Francisco International Airport and a comment from City/County Association of Governments (C/CAG) Airport Land Use Commission) pertained to the Specific Plan Site being within Area B of the Airport Influence Area (AIA) for San Francisco International Airport and the potential exposure of new noise-sensitive uses to noise from aircraft activity. The issue of aircraft noise is addressed below on page 3.7-45. In addition, some comments discussed the potential for trees or water features to be included in the design to potentially mask noise at the Project Site from the existing adjacent freeways. One comment discussed the potential for using sound-absorbing asphalt to reduce vehicle-related noise. The potential for noise impacts under CEQA to occur as well as a discussion of noise-reducing mitigation options to reduce noise impacts where they may occur are addressed below.

3.7.1 Fundamentals of Environmental Noise and Vibration

3.7.1.1 Overview of Noise and Sound

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, an evaluation of noise is necessary when considering the environmental impacts of a proposed project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor for characterizing the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called *A-weighting*, written as *dBA* and referred to as *A-weighted decibels*. Table 3.7-1 defines sound measurements and other terminology used in this chapter, and Table 3.7-2 summarizes typical A-weighted sound levels for different noise sources.

Table 3.7-1. Definition of Sound Measurements

Sound Measurements	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude with respect to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
C-Weighted Decibel (dBC)	The sound pressure level in decibels as measured using the C-weighting filter network. The C-weighting is very close to an unweighted or *flat* response. C-weighting is used only in special cases (i.e., when low-frequency noise is of particular importance). A comparison of the measured A- and C-weighted level gives an indication of low-frequency content.
Maximum Sound Level (L_{max})	The maximum sound level measured during the measurement period.
Minimum Sound Level (L_{min})	The minimum sound level measured during the measurement period.
Equivalent Sound Level (L_{eq})	The equivalent steady-state sound level that in a stated period of time would contain the same acoustical energy.
Percentile-Exceeded Sound Level (L_{xx})	The sound level exceeded X% of a specific time period. L_{10} is the sound level exceeded 10% of the time, and L_{90} is the sound level exceeded 90% of the time. L_{90} is often considered to be representative of the background noise level in a given area.
Day-Night Level (L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Vibration Velocity Level (or Vibration Decibel Level, VdB)	The root-mean-square velocity amplitude for measured ground motion expressed in dB.
Peak Particle Velocity (Peak Velocity or PPV)	A measurement of ground vibration, defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. PPV is usually expressed in inches per second (in/sec).
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

Table 3.7-2. Typical A-weighted Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock band
Jet flyover at 1,000 feet		
	—100—	
Gas lawnmower at 3 feet		
	—90—	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	—80—	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	—70—	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	—60—	
		Large business office
Quiet urban daytime	—50—	Dishwasher in next room
Quiet urban nighttime	—40—	Theater, large conference room (background)
Quiet suburban nighttime		
	—30—	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	—20—	
		Broadcast/recording studio
	—10—	
	—0—	

Source: California Department of Transportation. 2013a. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September. Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf. Accessed: December 12, 2018.

In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases, respectively.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L_{10}, L_{20}), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such. These measurements are defined in Table 3.7-1.

For a point source, such as a stationary compressor or a piece of construction equipment, sound attenuates (lessens in intensity), based on geometry, at a rate of 6 dB per doubling of distance. For a line source, such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance perpendicular to the source (California Department of Transportation 2013). Atmospheric conditions, including wind, temperature gradients, and humidity, can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travels over a hard surface such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers such as buildings or topographic features that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Community noise environments are generally perceived as *quiet* when the 24-hour average noise level is below 45 dBA, *moderate* in the 45 to 60 dBA CNEL range, and *loud* above 60 dBA CNEL. Very noisy urban residential areas are usually around 70 dBA CNEL. Along major thoroughfares, roadside noise levels are typically between 65 and 75 dBA CNEL. Incremental changes of 3 to 5 dB in the existing 1-hour L_{eq}, or the CNEL, are commonly used as thresholds for an adverse community reaction to a noise increase. However, there is evidence that incremental thresholds in this range may not be sufficiently protective in areas where noise-sensitive uses are located and CNEL is already high (i.e., above 60 dBA). In these areas, limiting noise increases to 3 dB or less is recommended (Federal Transit Administration 2018). Noise intrusions that cause short-term interior noise levels to rise above 45 dBA at night can disrupt sleep. Exposure to noise levels greater than 85 dBA for 8 hours or longer can cause permanent hearing damage.

3.7.1.2 Overview of Ground-borne Vibration

Operation of heavy construction equipment, particularly pile-driving equipment and other impact devices (e.g., pavement breakers), creates seismic waves that radiate along the surface of and downward into the ground. These surface waves can be felt as ground vibration. Vibration from the operation of this type of equipment can result in effects that range from annoyance for people to damage for structures. Variations in geology and distance result in different vibration levels, including different frequencies and displacements. In all cases, vibration amplitudes decrease with increased distance.

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

Vibration amplitude attenuates over distance. This is a complex function of how energy is imparted into the ground and the soil or rock conditions through which the vibration is traveling. The following equation is used to estimate the vibration level at a given distance for typical soil conditions (Federal Transit Administration 2018). PPV_{ref} is the reference PPV at 25 feet (Table 3.7-3).

$$PPV = PPV_{ref} \text{ x } (25/\text{Distance})^{1.5}$$

Table 3.7-3. Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 Feet	PPV at 50 Feet	PPV at 75 Feet	PPV at 80 Feet	PPV at 100 Feet
Auger drill	0.089	0.0315	0.0171	0.016	0.011
Hoe ram	0.089	0.0315	0.0171	0.016	0.011
Large bulldozer	0.089	0.0315	0.0171	0.016	0.011
Loaded trucks	0.076	0.0269	0.0146	0.013	0.010
Jackhammer	0.035	0.0124	0.0067	0.006	0.004
Small bulldozer	0.003	0.0011	0.0006	0.001	0.0004

Source: Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report No. 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: April 10, 2019.

Table 3.7-3, above, summarizes typical vibration levels generated by construction equipment (Federal Transit Administration 2018) at the reference distance of 25 feet and other distances, as determined with use of the attenuation equation above. Tables 3.7-4 and 3.7-5 summarize the guidelines developed by the California Department of Transportation (Caltrans) for damage and annoyance potential from the transient and continuous vibration that is usually associated with construction activity. The activities that are typical of continuous vibration include the use of excavation equipment, static compaction equipment, tracked vehicles, vehicles on a highway, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment. The activities that are typical of single-impact (transient) or low-rate, repeated impact vibration include the use of drop balls, blasting, and the use of impact pile drivers, “pogo stick” compactors, and crack-and-seat equipment (California Department of Transportation 2013b**)**.

Table 3.7-4. Vibration Damage Potential Threshold Criteria Guidelines

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation. 2013b. *Transportation and Construction Vibration Guidance Manual*. June. Available: http://www.dot.ca.gov/hq/env/noise/pub/vibrationmanFINAL.pdf. Accessed December 12, 2018.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 3.7-5. Vibration Annoyance Potential Criteria Guidelines

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation. 2013. *Transportation and Construction Vibration Guidance Manual*. September. Available: <http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf>.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

3.7.2 Existing Conditions

3.7.2.1 Regulatory Setting

Federal, state, and local agencies regulate different aspects of environmental noise. Generally, the federal government sets noise standards for transportation-related noise sources that are closely linked to interstate commerce. These sources include aircraft, locomotives, and trucks. No federal noise standards are directly applicable to the Project. The state government sets noise standards for transportation noise sources such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies. Local general plans identify general principles that are intended to guide and influence development plans. The state and local noise policies and regulations that are applicable to the Project are described below.

California Code

California Code of Regulations Title 24, part 2, Sound Transmission, establishes minimum noise insulation standards to protect persons within new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than single-family residences. Under this regulation, interior noise levels attributable to exterior noise sources cannot exceed 45 dB in any habitable room. The noise metric is either the L_{dn} or the CNEL. Compliance with Title 24 interior noise standards occurs during the permit review process and generally protects a proposed project's users from existing ambient outdoor noise levels. If determined necessary, a detailed acoustical analysis of exterior wall and window assemblies may be required.

Local

City of San Bruno General Plan

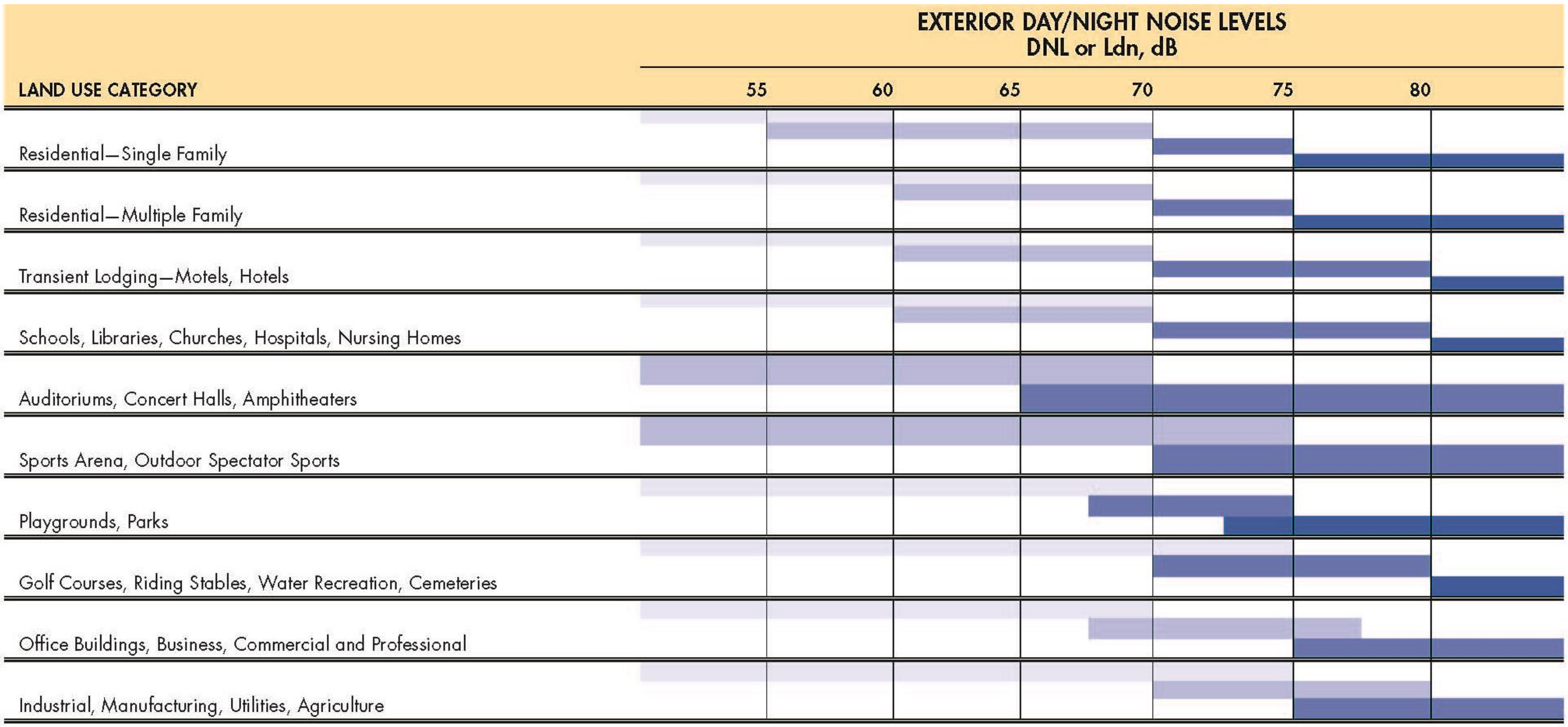
The City of San Bruno General Plan Health and Safety Element includes a number of goals and policies related to noise. Specifically, policies that are relevant to the Project include encouraging developers to mitigate noise by incorporating acoustical planning into their projects; preventing the placement of new noise-sensitive uses, unless adequate mitigation is included; requiring developers to comply with relevant noise insulation standards; encouraging developers of new residential projects to provide noise buffers other than sound walls; requiring sponsors of new housing in proximity to San Francisco International Airport (SFO) to provide disclosures, encouraging appropriate development only within certain distances (and, therefore, noise contours) of SFO; requiring developers to mitigate noise exposure from construction activities to sensitive receptors; encouraging traffic mitigations to reduce noise where residential development may front high-traffic arterials; and developing and implementing noise reduction measures when undertaking street improvement work. The Project's consistency with applicable general plan policies is evaluated in Section 3.6, *Land Use and Planning*, of this ~~Draft~~ EIR. In addition, the Health and Safety Element outlines acceptable noise limits for new land uses located outside the airport's noise-affected areas, as shown in Table 3.7-6.

San Bruno Municipal Code

The San Bruno Municipal Code contains regulations directly pertaining to noise in Section 6.16 (i.e., the Noise Ordinance). This section discusses noise limits for various noise sources in the jurisdiction. The relevant guidelines from the City Noise Ordinance are included below.

> *6.16.030 Ambient Noise Level Limits.*
>
> Where the ambient noise level is less than designated in this section, the respective noise level in this section shall govern (Sound Level A, decibels): Residential zone, time ten p.m. to seven a.m., forty-five decibels; seven a.m. to ten p.m., sixty decibels. (Ord. 1354 § 1; prior code § 16-4.3)
>
> *6.16.050 Noise Levels Exceeding Ambient Base Level.*
>
> Any noise level exceeding the zone ambient base level at the property plane of any property, or exceeding the zone ambient base level on any adjacent residential area zone line or at any place of other property (or, if a condominium or apartment house, within any adjoining apartment) by more than ten decibels shall be deemed to be prima facie evidence of a violation of the provisions of this chapter. However, during the period of seven a.m. to ten p.m. the ambient base level may be exceeded by twenty decibels for a period not to exceed thirty minutes during any twenty-four-hour period. (Ord. 1354 § 1; prior code § 16-4.1-5)
>
> *6.16.060 Machinery Noise Levels.*
>
> No person shall operate any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property plane of any property to exceed the ambient base noise level by more than ten decibels. However, during the period of seven a.m. to ten p.m. the ambient noise level may be exceeded by twenty decibels for a period not to exceed thirty minutes during any twenty-four-hour period. (Ord. 1354 § 1; prior code § 16-4.6)

Table 3.7-6. Land Use Compatibility for Community Noise Environments



INTERPRETATION

Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
Normally Unacceptable	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.
Clearly Unacceptable	New construction or development should not be undertaken.

6.16.070 Construction of Buildings and Projects.

No person shall, within any residential zone, or within a radius of 500 feet therefrom, operate equipment or perform any outside construction or repair work on any building, structure, or other project, or operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction-type device which shall exceed, between the hours of seven a.m. and ten p.m., a noise level of 85 decibels as measured at one hundred feet, or exceed between the hours of ten p.m. and seven a.m. a noise level of 60 decibels as measured at one hundred feet, unless such person shall have first obtained a permit therefor from the director of public works. No permit shall be required to perform emergency work. (Ord. 1354 § 1; prior code § 16-4.7)

6.16.110 Amplified Sound.

Every user of sound-amplifying equipment shall file a registration statement with the city manager ten or more days prior to the date on which the sound-amplifying equipment is intended to be used. Such statement shall contain the following information:

a) The name, address, and telephone number of both the owner and user of the sound-amplifying equipment;

b) The maximum sound-producing power of the sound-amplifying equipment, which shall include the wattage to be used, the volume in decibels of sound which will be produced, and the approximate distance for which sound will be audible from the sound-amplifying equipment;

c) The license and motor number if a sound truck is to be used;

d) A general description of the sound-amplifying equipment which is to be used;

e) Whether the sound-amplifying equipment will be used for commercial or noncommercial purposes;

f) The duration of the permit requested, not to exceed thirty days. (Ord. 1354 § 1; prior code § 16-4.9(c)(1))

6.16.160 Amplified Sound—Regulations.

The commercial and noncommercial use of sound-amplifying equipment shall be subject to the following regulations:

a) The only sounds permitted shall be either music or human speech, or both.

b) The operation of sound-amplifying equipment shall only occur between the hours of eight a.m. and eight p.m. each day except on Sundays and legal holidays. No operation of sound-amplifying equipment for commercial purposes shall be permitted on Sundays or legal holidays. The operation of sound-amplifying equipment for noncommercial purposes on Sundays and legal holidays shall occur only between the hours of ten a.m. and eight p.m.

c) Sound level emanating from sound-amplifying equipment shall not exceed fifteen decibels above the ambient base noise level, as measured at a distance of one hundred feet from the sound source.

d) Notwithstanding the provisions of subsection C, sound-amplifying equipment shall not be operated within two hundred feet of churches, schools, hospitals or city or county buildings. (Ord. 1354 § 1; prior code § 16-4.9(f))

San Francisco International Airport Land Use Compatibility Plan

SFO is just over 1 mile southeast of the Project Site. The Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport, adopted in 2012, is the Airport Land Use Compatibility Plan (ALUCP) for SFO. The SFO ALUCP has been prepared to be consistent with the guidance provided by the U.S. Department of Transportation, Division of Aeronautics, and the Federal Aviation Administration. The SFO ALUCP establishes planning boundaries around SFO that define noise for policy implementation and areas within which notification of SFO proximity is required as part of real estate transactions (City/County Association of Governments of San Mateo County 2012). Noise associated with airport and aircraft operations is considered one of the main areas of important concern for airport land use commissions, especially in highly urbanized areas like the Bay Area.

The SFO ALUCP has four primary areas of concern, two of which pertain to noise (noting that the other two pertain to safety). These are:

1. Aircraft Noise Impact Reduction: To reduce the potential number of future airport area residents who could be exposed to noise impacts from airport and aircraft operations.
2. Over-flight Notification: To establish an area within which aircraft flights to and from the airport occur frequently enough and at a low enough altitude to be noticeable by sensitive residents. Within this area, real estate disclosure notices shall be required, pursuant to state law.

The SFO ALUCP designates noise impact areas, or Airport Noise Compatibility Zones, based on the patterns of runway use, air traffic, and other information, although noise contours are subject to revision due to changes in the volume of operations (arrivals and departures) and the mix of aircrafts. The SFO ALUCP aircraft noise contours are shown in Figure 3.7-1. As shown, the airport's 65 dB CNEL noise contour crosses the northeast corner of the Project Site. No other portions of the Project Site fall within an airport noise contour.

The entire Project Site is also within Airport Influence Areas (AIAs) A and B. Area A includes San Mateo County, all of which is overflown by aircraft flying to or from SFO at least once per week at altitudes of 10,000 feet or less above mean sea level (MSL). Area B lies within Area A and contains areas exposed to aircraft noise above the CNEL 65 dB contour or below critical airspace (City/County Association of Governments of San Mateo County 2012).

Figure 3.7-1
Year 2020 Airport Noise Contours

The SFO ALUCP includes policies and standards to protect people living in the vicinity of SFO from the effects of aircraft noise (City/County Association of Governments of San Mateo County 2012). Policy NP-2, Airport/Land Use Compatibility Criteria, establishes criteria to determine the compatibility of proposed land uses in the Airport Noise Compatibility Zones (reproduced herein as Table 3.7-7). As shown in Table 3.7-7, the following noise-sensitive land uses are considered conditionally compatible or incompatible when exposed to aircraft noise above CNEL 65 dBA:

- Residences, including single- and multi-family homes, as well as transient lodging
- Public and private schools
- Hospitals and convalescent homes
- Places of worship
- Auditoriums and concert halls
- Libraries
- Outdoor music shells and amphitheaters

3.7.2.2 Environmental Setting

This section provides a discussion of the existing conditions related to noise on the Project Site (including the Phase I Site) and in areas adjacent to the Project Site.

Regional and Local Setting

The Project Site is in the city of San Bruno in northern San Mateo County, just west of SFO. The Project Site is centrally located in the city and within 0.5 mile of downtown, city hall, the San Bruno Caltrain and Bay Area Rapid Transit (BART) stations, and the Tanforan shopping center. The Interstate (I-) 380 freeway/connector is immediately north of the Project Site; I-280 is west of the Project Site.

Existing Land Uses

Development within the Project Site currently consists of office, retail/commercial, and hotel uses. A small area in the northwestern portion of the Project Site is vacant. The Phase I Site is within the northwest portion of the Project Site and developed with two office buildings, both of which are currently operated by YouTube.

Table 3.7-7. Airport Noise Compatibility Zones

Table IV-1 Noise/Land Use Compatibility Criteria

LAND USE	COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) BELOW 65 dB	65-70 dB	70-75 dB	75 dB AND OVER
Residential				
Residential, single family detached	Y	C	N *(a)*	N
Residential, multi-family and single family attached	Y	C	N *(a)*	N
Transient lodgings	Y	C	C	N
Public/Institutional				
Public and Private Schools	Y	C	N	N
Hospitals and nursing homes	Y	C	N	N
Places of public assembly, including places of worship	Y	C	N	N
Auditoriums, and concert halls	Y	C	C	N
Libraries	Y	C	C	N
Outdoor music shells, amphitheaters	Y	N	N	N
Recreational				
Outdoor sports arenas and spectator sports	Y	Y	Y	N
Nature exhibits and zoos	Y	Y	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N
Golf courses, riding stables, and water recreation	Y	Y	Y	Y
Commercial				
Offices, business and professional, general retail	Y	Y	Y	Y
Wholesale; retail building materials, hardware, farm equipment	Y	Y	Y	Y
Industrial and Production				
Manufacturing	Y	Y	Y	Y
Utilities	Y	Y	Y	Y
Agriculture and forestry	Y	Y *(b)*	Y *(c)*	Y *(c)*
Mining and fishing, resource production and extraction	Y	Y	Y	Y

Notes:

CNEL = Community Noise Equivalent Level, in A-weighted decibels.

Y (Yes) = Land use and related structures compatible without restrictions.

C (conditionally compatible) = Land use and related structures are permitted, provided that sound insulation is provided to reduce interior noise levels from exterior sources to CNEL 45 dB or lower and that an avigation easement is granted to the City and County of San Francisco as operator of SFO. See Policy NP-3.

N (No) = Land use and related structures are not compatible..

(a) Use is conditionally compatible only on an existing lot of record zoned only for residential use as of the effective date of the ALUCP. Use must be sound-insulated to achieve an indoor noise level of CNEL 45 dB or less from exterior sources. The property owners shall grant an avigation easement to the City and County of San Francisco prior to issuance of a building permit for the proposed building or structure. If the proposed development is not built, then, upon notice by the local permitting authority, SFO shall record a notice of termination of the avigation easement.

(b) Residential buildings must be sound-insulated to achieve an indoor noise level of CNEL 45 dB or less from exterior sources.

(c) Accessory dwelling units are not compatible.

SOURCES: Jacobs Consultancy Team 2010. Based on State of California General Plan Guidelines for noise elements of general plans; California Code of Regulations, Title 21, Division 2.5, Chapter 6, Section 5006; and 14 CFR Part 150, Appendix A, Table 1.

PREPARED BY: Ricondo & Associates, Inc., June 2012.

The Project Site is surrounded by a mix of commercial, retail, residential, and hotel uses, which are characteristic of a densely developed urban environment. Noise-sensitive land uses[1] in the vicinity of the Project Site consist of neighborhoods with single- and multi-family residences as well as hotels. As shown in Figure 3.7-2, the closest sensitive land uses are the residences located south of San Bruno Avenue, which are south of the Project Site. The nearest residences within this area are approximately 80 feet from the southern perimeter of the Project Site. The closest noise-sensitive land uses to the Phase I Site are the multi-family residential uses located approximately 450 feet northwest of the Phase I Site, north of I-380 and southwest of the intersection of Cherry Avenue and Commodore Drive. Residential uses, a nursing home, and a hotel use are located east of the Project Site, across El Camino Real.

Existing Noise Sources

The primary noise sources affecting the Project Site are traffic along the two adjacent freeways (I-280 to the west and I-380 to the north) as well as aircraft overflights from SFO. In addition, parking lot noise within the Project Site, including at the onsite retail and offices uses, contributes to the existing ambient noise levels at the Project Site. The primary noise sources at the Phase I Site are essentially the same as noise sources at the overall Project Site.

Existing Noise Levels

The existing ambient noise environment at the Project Site, inclusive of the Phase I Site, is characteristic of an urban environment (e.g., highway and local traffic, aircraft overflights, commercial noise sources). Traffic noise from vehicles traveling on surrounding streets (such as San Bruno Avenue and El Camino Real) and freeways (I-280 and I-380) is the dominant noise source at the Project Site.

To quantify existing ambient noise levels at and around the Project Site, long-term (24-hour) and short-term (15-minute) ambient noise measurements were conducted. Long-term measurements were conducted between June 3, 2019, and June 5, 2019, and short-term measurements were conducted on June 3, 2019. Measurements were conducted at locations on and adjacent to the Project Site. Short- and long-term measurement locations were selected to capture noise levels in areas that are sensitive to noise or representative of ambient levels in the vicinity throughout the day. The locations of the noise measurement sites are shown in Figure 3.7-2.

As shown in Table 3.7-8, existing noise levels east of the Project Site (at LT-1 on the east side of El Camino Real) were measured to be between 74.3 and 74.9 dBA L_{dn} (Measurement LT-1). This is characteristic of a very noisy urban residential area, as described on page 3.7-4 (with noise levels above 70 dBA Ldn or CNEL). The 24-hour average noise levels south of the Project Site were measured to be between 73.5 and 73.8 dBA L_{dn} (Measurement LT-2 on the south side of San Bruno Avenue). The noise levels at LT-3, located north of the Project Site and north of I-380 at Commodore Park (near the multi-family residential buildings located west of Cherry Avenue), were similar, measured to be approximately 74 dBA CNEL.

Tables 3.7-8 and 3.7-9 summarize the results of the noise measurement survey. For the complete dataset of measured noise levels, please refer to Appendix 3.7-1.

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[1] Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive land uses typically include single- and multi-family residential areas, health care facilities, lodging facilities, and schools. Recreational areas where quiet is an important part of the environment can also be considered sensitive to noise. Some commercial areas may be considered noise sensitive as well, such as outdoor restaurant seating areas.

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Figure 3.7-2
Short- and Long-Term Noise Measurements in the Project Area

Table 3.7-8. Long-Term Noise Level Measurements in the Project Site Vicinity

Site	Site Description	Date and Time	Measured L_{dn} 6/03–6/04	Measured CNEL 6/03–6/04	Measured L_{dn} 6/04–6/05	Measured CNEL 6/04–6/05	Lowest daytime Leq	Highest daytime Leq
LT-1	East of the intersection of Euclid Avenue and El Camino Real, near the San Bruno Skilled Nursing Facility	Start: Monday June 3, 2019, at 11:49 a.m. End: Wednesday June 5, 2019, at 10:49 a.m.	74.9[a]	75.3[a]	74.3[a]	74.7[a]	66.2	72.9
LT-2	Southeast of the intersection of Traeger Avenue and San Bruno Avenue, along Peachwood Court (on the north side of the street near 1301 Peachwood Court)	Start: Monday June 3, 2019, at 11:18 a.m. End: Wednesday June 5, 2019, at 11:18 a.m.	73.5	73.9	73.8	74.2	69.9	73.9
LT-3	On the western perimeter of Commodore Park, south of the intersection of Commodore Drive and Cherry Avenue	Start: Monday June 3, 2019, at ~11:30 a.m. End: Wednesday June 5, 2019, at 11:30 a.m.	74.0	74.4	73.7	74.1	67.8	71.8

Note: See Appendix 3.7-1 for data.

LT = long-term (24-hour/multi-day) ambient noise measurement.

L_{dn} = day-night level

CNEL = community noise equivalent level

Note that CNEL and L_{dn} noise levels in a given area are typically very similar because both are 24-hour average noise levels, with additional dB (penalties) added for noise levels during the evening and/or nighttime hours.

a. A backup meter was placed at LT-1, resulting in two sets of data for this location. The data set with lower noise levels is presented here to provide a conservative analysis (i.e., Project-related noise levels would represent a greater increase compared with ambient noise levels).

Table 3.7-9. Short-Term Noise Level Measurements in the Project Site Vicinity

Site	Site Description	Date and Time	Primary Noise Sources	Measured Noise Level (dBA)		
				L_{eq}	L_{max}	L_{min}
ST-1	In the YouTube parking lot east of the building at 1000 Cherry Avenue, south of I-380 and north of Grundy Lane	June 3, 2019, at 1:35 p.m.	Traffic from I-380, parking lot traffic, and background-level music in the vicinity.	73.1	80.1	66.1
ST-2	Northwest of the intersection of Traeger Avenue and Bayhill Drive, west of the buildings at 1250 Bayhill Drive (along the southern perimeter of the Phase I Site)	June 3, 2019, at 12:58 p.m.	Intermittent pass-by traffic, voices of passing pedestrians, distant aircraft noise, birds, and traffic from I-380.	61.2	64.7	55.3

Note: See Appendix 3.7-1 for data.
ST = short-term (~15-minute) ambient noise measurement.

With regard to the short-term measurements, as shown in Table 3.7-9, two short-term measurements were conducted in the Project area. ST-1 is in the northern portion of the proposed Phase I area near I-380. The 15-minute average noise level at this location, which was largely influenced by the nearby freeway traffic noise, was 73.1 dBA L_{eq}. ST-2 is in the southern portion of the Phase I Site near Bayhill Drive. The 15-minute average noise level at this location was lower, even though I-380 traffic was distantly audible in this area and measured to be 61.2 dBA L_{eq}.

Although noises typical of an urban setting (e.g., people talking and birds chirping), as well as some aircraft noise from SFO, may have been captured by these measurements, the predominant noise source that was audible during the manned (short-term) measurements was traffic from nearby roadways. It is likely that the predominant noise source captured by the long-term measurements (all located close to relatively busy roadways) was also traffic noise from nearby roadways.

3.7.3 Environmental Impacts

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

3.7.3.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below.

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.
- Generate excessive ground-borne vibration or ground-borne noise levels.
- Be located in the vicinity of a private airstrip or within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and expose people residing or working in a project area to excessive noise levels.

3.7.3.2 Methodology and Approach

This noise impact analysis evaluates the temporary noise increase associated with Project construction activities, operational noise generated by sound-generating equipment and onsite activities, traffic noise associated with Project-related changes in traffic patterns, and the exposure of users of the Project Site and the Phase I Site to traffic and other noise sources.

Noise impacts associated with onsite demolition and construction were evaluated using the noise calculation method and construction equipment noise data in the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). The data include the A-weighted L_{max}, measured at a distance of 50 feet from the construction equipment, and the utilization factors for the equipment. The utilization factor is the percentage of time each piece of construction equipment is typically operated at full power over the specified time period. It is used to estimate L_{eq} values from L_{max} values. For example, the L_{eq} value for a piece of equipment that operates at full power over 50 percent of the time is 3 dB less than the L_{max} value (Federal Highway Administration 2006).

As discussed under *Regulatory Setting*, above, pursuant to San Bruno Municipal Code Section 6.16.070, noise from construction activities within any residential zone, or within 500 feet of any residential zone, is limited to 85 dBA, as measured at 100 feet from the source between the hours of 7:00 a.m. and 10:00 p.m., unless a permit has been obtained to exceed this level. Between the hours of 10:00 p.m. and 7:00 a.m., construction noise is limited to 60 dBA at 100 feet from the source, unless a permit is obtained. These noise criteria are applied in the construction noise analysis for the Project and the Phase I Development. With regard to potential vibration impacts, guidelines developed by Caltrans to assess potential vibration-related damage and annoyance effects are applied in this analysis (refer to Table 3.7-4 and Table 3.7-5).

Direct and cumulative noise impacts associated with increased traffic volumes generated by the Project were quantitatively evaluated for the following conditions:

- Existing
- Year 2040 without Project
- Year 2040 with Project

Potential traffic impacts under Phase I were qualitatively evaluated based on the modeling results of the Specific Plan traffic noise analysis. Quantitative modeling of traffic noise from the Project was conducted using a spreadsheet that was based on the FHWA Traffic Noise Model (TNM), version 2.5. This spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway, based on the traffic volume, roadway speed, and vehicle mix that is predicted to occur under each condition. Peak-hour turning movements were converted to average daily traffic volumes, based on guidance from the EIR traffic engineer (Fehr & Peers) and used to determine the traffic noise impact along the major vehicle access routes. A reasonable default vehicle mix (i.e., the proportion of automobiles, trucks, buses, and other vehicles) was used in the model, based on guidance from the Project traffic consultant. Traffic noise was evaluated in terms of how Project-related noise increases could affect existing noise-sensitive land uses as well as proposed onsite sensitive land uses along the major Project traffic access roadways. The analysis of Phase I Development traffic-related noise is based on the quantitative traffic modeling done for the Project.

When assessing traffic noise impacts, noise levels with and without the Project are compared to the land use compatibility standards set forth in the City of San Bruno General Plan to determine if noise levels along a given roadway are already in excess of acceptable levels or would be in excess of those levels with

Project implementation. As discussed previously in the *Overview of Noise and Sound* section, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases. Because noise levels could be in excess of, or very close to, the applicable compatibility standard without Project implementation, simply comparing Project noise levels to the compatibility standard is not an appropriate method for evaluating Project-related traffic noise impacts. For this reason, an increase in traffic noise levels of 3 dB or more (considered "barely noticeable") along segments where existing or resulting noise levels with the Project would be in excess of the "normally acceptable" level would be considered a significant increase. Along segments where the existing or resulting noise level would be below the relevant noise compatibility criteria, increases in noise could still result in adverse effects on nearby noise-sensitive land uses. Because a 5 dB change is generally considered "clearly noticeable," a Project-related increase of 5 dB or more at these segments would be considered potentially significant. For this reason, the following thresholds are applied to determine impact significance of Project-related traffic noise increases:

1. An increase of more than 5 dB is considered a significant traffic noise increase, regardless of the existing ambient noise level, and
2. In places where the existing or resulting noise environment is "conditionally acceptable," "normally unacceptable," or "clearly unacceptable," based on the City of San Bruno Land Use Compatibility Guidelines, any noise increase greater than 3 dB is considered a significant traffic noise increase.

Traffic noise impacts on future onsite noise-sensitive uses were analyzed in accordance with the *California Building Industry Association v. Bay Area Air Quality Management District* case,[2] which establishes that the effects of the environment on a project are not considered impacts, unless a project exacerbates the hazard or worsens the noise effect. Because development of the Project would result in an increase in traffic noise, the potential for future onsite sensitive receptors to be exposed to traffic noise in the Project vicinity is considered in the analysis. However, because the land uses are not currently in existence, impact determinations are not based on traffic noise increases with the Project compared to noise levels without the Project. Rather, traffic noise levels are compared to the applicable land use compatibility standard from the general plan (refer to Table 3.7-6).

Operational noise impacts associated with the proposed onsite activities and stationary sources of noise were evaluated, based on the proposed site plan layout and the types of noise-generating equipment and activities that could occur under the Phase I Development and the Project. To not exceed applicable City Municipal Code thresholds, mechanical equipment must not result in noise levels of 10 dB above ambient. In addition, noise from outdoor gatherings with amplified music must not exceed 15 dB above the ambient base noise level, as measured at a distance of 100 feet from the sound source, to avoid potentially significant impacts.

Noise at various distances from point sources (e.g., construction equipment and stationary operational equipment) was estimated using point-source attenuation of 6 dB per doubling of distance. Noise at various distances generated by line sources (e.g., vehicles traveling on streets) was estimated using line-source attenuation of 3 dB per doubling of distance from the noise source.

[2] *California Building Industry Association v. Bay Area Air Quality Management District*, Supreme Court Case No. S213478.

Buildout Scenario

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the farthest range allowable under the Specific Plan, resulting in 573 multi-family residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed. Each section within Chapter 3, *Environmental Impact Analysis*, of this EIR analyzes the buildout scenario that represents the "worst-case" scenario for the resource area being analyzed. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts.

It should be noted that impacts between the two buildout scenarios for many noise sources would be the same. However, the components of the noise analysis that are based on operational traffic assume the operational traffic volumes of the Maximum Office Scenario, which represents the worst-case potential traffic generation in terms of trip volumes. However, to account for potential impacts on future receptors (where applicable), this analysis also assumes that potential residential uses could be located within the housing and mixed-use overlay zones and that day-care uses could be located anywhere in the Project Site.

3.7.3.3 Impacts and Mitigation Measures

Impact NOI-1a. The Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance, or applicable standards of other agencies, with implementation of mitigation measures (Project: Less than Significant with Mitigation)

Impact NOI-1b. The Phase I Development would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance, or applicable standards of other agencies, with implementation of mitigation measures (Phase I Development: Less than Significant with Mitigation)

Project

Construction

Daytime Construction Noise

Implementation of the Specific Plan would result in the demolition of some onsite structures and associated surface parking areas, along with the construction of new office and residential buildings, subterranean parking garages, and infrastructure improvements. Demolition and construction activities would generate noise and temporarily increase noise levels onsite and at nearby land uses. The level of noise generated would depend on the types of construction equipment used, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Potential construction noise impacts are typically more substantial when construction occurs during noise-sensitive times of the day (early morning, evening, or nighttime hours) in areas immediately adjoining noise-sensitive land uses or for extended periods of time. Demolition and construction activities associated with Project development could expose nearby sensitive receptors to excessive noise levels. As previously discussed, the nearest offsite sensitive receptors are the single-family residences approximately 80 feet from the southern perimeter of the Project Site, south of San Bruno Avenue. In addition, new onsite residential uses could be occupied while construction activities are taking place elsewhere in the Project Site and could be exposed to excessive noise levels.

As discussed under *Regulatory Setting,* above, pursuant to San Bruno Municipal Code Section 6.16.070, noise from construction activities within any residential zone, or within 500 feet of any residential zone, is limited to 85 dBA, as measured at 100 feet from the source, between the hours of 7:00 a.m. and 10:00 p.m., unless a permit has been obtained to exceed this level. Between the hours of 10:00 p.m. and 7:00 a.m., construction noise is limited to 60 dBA at 100 feet from the source, unless a permit is obtained.

Although the exact construction activities and associated equipment that would be used throughout buildout of the Specific Plan are not known at this time, they are assumed to be similar to the construction activities and equipment that would be used for the Phase I Development, which are listed below in Table 3.7-10. As shown, this includes a variety of different equipment types, including, but not limited to, bulldozers, graders, excavators, forklifts, and cranes. To provide a reasonable worst-case analysis of potential combined noise levels from the concurrent use of construction equipment during Project construction, this analysis assumes that the three loudest pieces of equipment proposed for a construction subphase of the Phase I Development would also be the three loudest pieces of equipment that could be used during buildout of the Specific Plan. The analysis also assumes that each piece of equipment would operate concurrently in the same general location on the Project Site. The screening analysis determined that the grading activities subphase would have the potential to produce the highest sound level as a result of concurrent operation of a bulldozer, compactor, and grader. Table 3.7-10 identifies the combined noise level (both L_{max} and L_{eq}) from operation of these three pieces of construction equipment and the anticipated reasonable worst-case noise levels during Project construction at various distances from the Project Site.

As shown in Table 3.7-10, reasonable worst-case combined construction noise (based on the assumptions described above) is expected to be approximately 78 dBA L_{eq} and 82 dBA L_{max} at a distance of 100 feet from the noise source. This level is below the City's construction noise standard of 85 dBA at a distance of 100 feet between the hours of 7:00 a.m. to 10:00 p.m. Because construction noise is expected to be below the applicable City limits during daytime hours, daytime construction noise from Specific Plan development would not result in a substantial temporary increase in noise levels that would be in excess of applicable local standards. Daytime construction noise impacts under the Specific Plan would be ***less than significant.***

Although the City does not require noise levels at receptors closer than 100 feet to be below the 85 dBA criterion, it is noted that the reasonable worst-case combined construction noise level at the nearest offsite receptors (the single-family residences approximately 80 feet to the south) would be 80 dBA L_{eq} and 84 dBA L_{max}, which is also below the City's daytime construction noise standard. Future onsite receptors could be located closer than this distance (80 feet) from Project construction areas and could be occupied while later phases of Project construction occur. Note that at distances of 50 feet from the noise source, construction noise levels could exceed the 85 dBA criterion (refer to Table 3.7-10, which shows L_{eq} noise levels at 50 feet of 88 dBA L_{max} and 84 dBA L_{eq}). Table 3.7-10 shows reasonable worst-case construction noise levels if the three loudest pieces of equipment (bulldozer, grader, and compactor) from the loudest subphase of construction were to operate simultaneously within the same general location; therefore, it is possible that construction noise levels would be less than these modeled levels. Although it is possible that noise levels at occupied onsite land uses developed under the Project would be exposed to construction noise in excess of 85 dBA during later phases of Project construction, the impact would remain less than significant, pursuant to the City's daytime construction noise standard.

Table 3.7-10. Combined Project Construction Noise Levels at Various Distances (L_{max} and L_{eq})

Source Data:		**Maximum Sound Level (dBA)**	**Utilization Factor**	**L_{eq} Sound Level (dBA)**
Construction Condition: Grading				
Source 1: Bulldozer – sound level (dBA) at 50 feet =		82	40%	78.0
Source 2: Grader – sound level (dBA) at 50 feet =		85	40%	81.0
Source 3: Compactor – sound level (dBA) at 50 feet =		83	20%	76.0
Calculated Data:				
All Sources Combined – L_{max} sound level (dBA) at 50 feet =				88 L_{max}
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =				84 L_{eq}
Distance Between Source and Receiver (feet)	**Geometric Attenuation (dB)**		**Calculated L_{max} Sound Level (dBA)**	**Calculated L_{eq} Sound Level (dBA)**
50	0		88	84
80	**-4**		**84**	**80**
100	***-6***		***82***	***78***
200	-12		76	72
300	-16		73	68
400	-18		70	66
450	**-19**		**69**	**65**
500	-20		68	64
600	-22		67	62
650	-22		66	61
700	-23		65	61
800	-24		64	60
900	-25		63	59
1,000	-26		62	58

Source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: https://www.gsweventcenter.com/Draft_SEIR_References/2006_01_Roadway_Construction_Noise_Model_User_Guide_FHWA.pdf. Accessed: December 18, 2018.

Notes:

- **Bolded** and *italicized* results: Results at 80 feet are **bolded** because 80 feet is the distance to the nearest noise-sensitive land use from the Project Site. Results at 450 feet are **bolded** because that is the distance to the nearest noise-sensitive land use from the Phase I Site (discussed below under the Phase I Development analysis). Results at 100 feet are **bolded** and *italicized* because this is the distance at which the threshold for construction noise in the city applies.
- Geometric attenuation based on 6 dB per doubling of distance.
- This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.

Table 3.7-11. Construction Equipment Noise Levels at 50 and 100 Feet (L_{max} and L_{eq})

Equipment	L_{max} at 50 feet (dBA)[a]	Acoustical Usage/ Utilization Factor	L_{eq} at 50 feet (dBA)[a]	L_{eq} at 100 feet (dBA)[a]
Auger drill rig	84	20%	77	71
Excavator	81	40%	77	71
Front-end loader	79	40%	75	69
Dozer	82	40%	78	72
Concrete pump truck	81	20%	74	68
Generator	81	50%	78	72
Forklift[b]	84	40%	80	74
Crane	81	16%	73	67
Paver	77	50%	74	68
Compactor	83	20%	76	70
Grader	85	40%	81	75

Notes:.
a. These values were calculated by subtracting 6 dBA from each L_{max} value at 50 feet, based on geometric attenuation for a point source.
b. Forklift represented by a tractor in FHWA Construction Noise Model.

Nighttime Construction Noise

Most construction activities that would occur under the Specific Plan are expected to occur during daytime hours (7:00 a.m. to 10:00 p.m.), or as specified within San Bruno Municipal Code. It is possible, however, that a limited amount of nighttime construction work could be necessary for Specific Plan development. Table 3.7-11 shows estimated noise levels for anticipated construction equipment that could be used during buildout of the Specific Plan, based on the types of equipment proposed to be used for the Phase I Development, at a distance of 50 feet and 100 feet.

As previously discussed, the City Noise Ordinance limits construction noise levels to 60 dBA at a distance of 100 feet from the noise source between the hours of 10:00 p.m. and 7:00 a.m., unless a permit has been obtained from the director of the City Public Works Department or his/her designee. If granted, the nighttime construction permit would include stipulations and restrictions with which contractors would be required to comply. As shown in Table 3.7-11, most individual pieces of construction equipment that could be used during buildout of the Specific Plan would exceed 60 dBA at a distance of 100 feet. Therefore, the Project's construction noise impacts during nighttime hours would be potentially significant, and mitigation is required.

Mitigation Measures

Implementation of **Mitigation Measure NOI-1** would reduce Project impacts associated with compliance with local noise standards during potential nighttime construction to a less-than-significant level. This impact would be ***less than significant with mitigation.***

Mitigation Measure NOI-1: Construction Noise Control Plan for Nighttime Construction.

Should construction be planned for the nighttime hours of 10:00 p.m. to 7:00 a.m. for any development under the Specific Plan within 500 feet of a residential land use (including the Phase I Development), the contractor(s) for each construction phase shall develop a construction noise control plan that demonstrates that noise from nighttime construction activities will comply with the City noise limit of 60 dBA at a distance of 100 feet, unless a permit is issued and approval is granted by the director of the City Public Works Department or his/her designee. Measures to help reduce noise from construction activity during nighttime hours to this level (or to the extent feasible) shall be incorporated into this plan and may include, but are not limited to, the following:

- Require stationary noise sources associated with construction (e.g., generators and compressors) in proximity to noise-sensitive land uses to be muffled and/or enclosed within temporary enclosures and shielded by barriers, which can reduce construction noise by as much as 5 dB.
- Require all construction equipment powered by gasoline or diesel engines and used during nighttime hours to have sound control devices that are at least as effective as those originally provided by the manufacturer and operated and maintained to minimize noise generation.
- Prohibit idling of inactive construction equipment for prolonged periods during nighttime hours (i.e., more than 2 minutes).
- Locate construction equipment as far as feasible from adjacent or nearby noise-sensitive receptors.
- Use noise-reducing enclosures around noise-generating equipment during nighttime hours. Prohibit the use of impact tools (e.g., jack hammers) during nighttime hours.
- Use electric motors rather than gasoline- or diesel-powered engines to avoid noise associated with compressed air exhaust from pneumatically powered tools during nighttime hours. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust could be used; this muffler can lower noise levels from the exhaust by about 10 dB. External jackets on the tools themselves could be used, which could achieve a reduction of 5 dB.
- Ensure that equipment and trucks used for Project construction use the best available noise control techniques (e.g., improved mufflers, equipment redesign, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds).
- For construction work that occurs at night, an alternative to high pitched, single-tone back up alarms shall be used. This could include a visual observer to provide warnings to the driver in the event that workers are present behind the vehicle or the use of a white noise alarm sound source. Any alternative approach must comply with all applicable safety regulations.
- The City of San Bruno shall require a third-party inspector to be onsite during all nighttime construction work. The director of the City Public Works Department or his/her designee, based on the degree of construction, proximity to sensitive uses, or a noise complaint, may require the Project sponsor to monitor noise levels during nighttime construction activities. If this is required, a plan for noise monitoring and reporting must be provided to the Director of the City Public Works Department or his/her designee for review.
- Should a reduction in construction noise to below the allowable 60 dBA level be deemed infeasible, the contractor shall coordinate with the Community and Economic Development Department to obtain a permit that allows the generation of nighttime construction noise in excess of 60 dBA. The permit shall include stipulations and restrictions with which the contractor(s) would be required to comply. The contractor(s) shall comply with all stipulations of the permit. One of the conditions of the permit shall be that interior noise levels at the nearest noise-sensitive uses resulting from nighttime construction shall not exceed 45 dBA, a commonly accepted threshold for sleep disturbance.

Haul Truck Noise

As described previously, construction details for Specific Plan development are not available at this time, including details about haul truck use. It is likely that haul truck usage for future development under the Specific Plan would be similar to that of the Phase I Development; therefore, the analysis of noise from haul truck use is based on similar assumptions applied to the Phase I Development analysis below.

For Phase I Development construction, which is being used as a proxy for construction of future projects under the Specific Plan, up to 216 one-way (108 round-trip) haul truck trips during a hauling-intensive subphase of construction is anticipated. Conservatively assuming a fourth of these haul truck trips could occur during a worst-case peak hour, there could be as many as 54 one-way haul truck trips occurring during a reasonable worst-case hour during the most hauling-intensive phase of construction (Site Preparation – Shoring Excavation). Per the Phase I Development construction data, most phases of construction would have far fewer daily haul truck trips (ranging from 4 to 100 trips per day instead of 216). For this reason, it is important to note that this many haul truck trips would not occur daily for the duration of Project (or Phase I Development) construction. The Site Preparation stage of each development project on the Project Site (when this higher volume of haul truck trips would occur) is expected to could last approximately 6 months (based on information from the Phase I applicant as to Phase I construction.)

Although haul trucks generate more noise than typical light-duty autos, noise levels in the vicinity of the Project Site are already elevated by traffic occurring on higher-volume adjacent arterial streets (e.g., San Bruno Avenue and El Camino Real) and nearby freeways (I-380 and I-280). The 24-hour ambient noise levels along the perimeter of the Project Site where haul trucks may travel were measured to be approximately 74 to 75 dBA L_{dn}, as shown in Table 3.7-7. The loudest L_{eq} levels recording during the normal 12-hour construction day along these routes were approximately 72 dBA L_{eq} along Cherry Avenue north of the Project Site, 74 dBA L_{eq} along El Camino Real east of the Project Site, and 73 dBA L_{eq} along West San Bruno Avenue, south of the Project Site. The quietest L_{eq} recorded during the normal 12-hour construction day along these roadways were recorded to be 68, 70 and 66 dBA L_{eq}, respectively.

The City's Municipal Code does not include a specific threshold that pertains to construction haul truck noise. Therefore, anticipated loudest-hour haul truck noise was assessed to determine if a 3 dB increase over ambient noise levels would occur.

The temporary addition of up to 54 one way haul trucks per hour using the local roadway network to access the freeways in proximity to the Project Site would be unlikely to substantially raise ambient noise levels. Although potential haul routes for future projects under the Specific Plan have yet to be identified, it is unlikely that all trucks would utilize the same route. However, to provide a conservative analysis, it is assumed that all trucks would utilize travel on the main roads surrounding the Project Site where existing ambient noise was measured (e.g., along El Camino Real, W San Bruno Avenue and Cherry Avenue). A total of 54 haul trucks per hour on a roadway with speeds of approximately 40 miles per hour (mph) would result in a 1-hour L_{eq} noise level of about 64 dBA L_{eq} at a distance of 50 feet from the roadway centerline (e.g. the center of the roadway, not the closest lane of traffic) on a given roadway.

Compared to the lowest recorded daytime Leq values (refer to Table 3.7-8) of 66 to 70 dBA Leq, 54 haul trucks per hour would have the potential to slightly increase the 1-hour Leq depending on the existing ambient noise level at the time of day when trucks are traveling. For example, the addition of haul truck noise at 64.0 dBA Leq (on El Camino Real) to an existing ambient of 66.2 dBA would result in an overall noise level of 68.2 dBA. The addition of haul truck noise of 64.0 dBA Leq (on El Camino Real, Cherry Avenue and Sneath Lane) to an existing ambient of 69.9 dBA would result in an overall noise level of approximately 70.9 dBA. Therefore, the addition of haul truck noise could temporarily add up to approximately 1 to 2 dBA to existing noise levels. During the hours of the day when the ambient is louder, haul trucks would add less noise to the overall ambient levels. For example, where the existing loudest daytime ambient noise level was 71.8 dBA Leq, the addition of 64 dBA of haul truck noise would result in a worst-hour peak noise level of 72.5 dBA (or a less than 1 dB increase). Where existing ambient was 73.9 dBA Leq, truck noise could increase the overall 1-hour ambient leq to 74.3 dBA Leq. Therefore, as a worst-case, haul truck noise could temporarily increase worst-case hourly ambient noise levels along haul routes by between 0.4 and 2.0 dBA leq.

Since a less than 3 dB increase in noise would occur (with a change of 3 dB considered barely noticeable), temporary noise increases from haul trucks along project haul routes would result in a less than significant impact related to a substantial temporary increase in noise during project construction. Temporary noise impacts related to haul truck use during Specific Plan construction would be ***less than significant.***

Operation

Traffic Noise Effects on Existing Land Uses

Implementation of the Specific Plan would lead to an increase in traffic in the vicinity of the Project Site, as detailed in Section 3.10, *Transportation*, of this ~~Draft~~ EIR. As described in the methodology section above, an increase in traffic noise levels of 3 dB or more (considered "barely noticeable") along segments where existing or resulting noise levels (with Project) are in excess of the "normally acceptable" level would be considered a significant increase because in some cases the compatibility standard along a roadway may be exceeded without Project implementation. Along segments where the existing or resulting noise level would be below the relevant noise compatibility criteria, increases in noise could still result in adverse effects on nearby noise-sensitive land uses. Because a 5 dB change is generally considered "clearly noticeable," a Project-related increase of 5 dB or more would be considered potentially significant. For these reasons, the following thresholds can be applied to determine the significance of Project-related traffic noise increases:

> (1) An increase of more than 5 dBA is considered a significant traffic noise increase, regardless of the existing ambient noise level, and
>
> (2) In places where the existing or resulting noise environment is "conditionally acceptable," "normally unacceptable," or "clearly unacceptable," based on the City of San Bruno Land Use Compatibility Guidelines, any noise increase greater than 3 dBA is considered a significant traffic noise increase.

According to the City of San Bruno General Plan Noise Element, a noise level of up to 60 dBA L_{dn} is considered "normally acceptable" for single-family residential land uses, 65 dBA L_{dn} is considered "normally acceptable" for multi-family residential or transient residential land uses, and 70 dBA L_{dn} is considered "normally acceptable" for office buildings, businesses, and commercial and professional land uses, such as those currently existing on the Project Site.

Table 3.7-12 shows Project-generated traffic noise increases along roadway segments in the vicinity of the Project Site for 2040 conditions, the anticipated buildout year for the Project. Note that this table shows only roadway segments with an increase of 2 dB or more (when rounded) attributable to the Project. For a full summary of traffic noise levels for all roadway segments modeled in the Project Site vicinity, see Appendix 3.7-1.

Table 3.7-12. Modeled Traffic Noise Impacts on Existing Land Uses

Roadway	Segment	Year 2040 Without Project (dB L_{dn})[a]	Year 2040 With Project[a,b] (dB L_{dn})	Project-related Increase[c, d]	Type of Land Use	Applicable Compatibility Standard	Exceeds Compatibility Standard?	Allowable Increase	Exceeds Allowable Increase?
Bayhill Drive	West of El Camino Real	59.2	61.0	1.8	O/C[e]	70.0	No	5	No
Bayhill Drive	West of Cherry Avenue	55.5	58.5	3.0	O/C[e]	70.0	No	5	No
Elm Avenue	North of San Bruno Avenue	53.3	56.0	2.7	O/C[e]	70.0	No	5	No
Traeger Avenue	North of San Bruno Avenue	55.6	57.7	2.2	O/C[e]	70.0	No	5	No

Notes:

a. Note that modeled traffic noise levels are based on modeling of traffic noise only and do not account for background noise levels (partly because it is not feasible to measure ambient noise levels along every modeled roadway segment). This is a conservative approach because a very high background level (measured) would mask any noise increases attributable to Project traffic. It is appropriate for the analysis of potential Project-related traffic noise increases/impacts.

b. Based on traffic volumes from Maximum Office Scenario, which are higher than those of Maximum Housing Scenario.

c. Year 2040 with-Project values minus year 2040 without-Project values

d. Only segments with a 2 dB increase over without-Project conditions (when rounded to the nearest whole number) are presented in this table. Refer to Appendix 3.7-1 for a full summary of Specific Plan traffic noise modeling results.

e. O/C = office buildings, business, commercial, and professional

All roadway segments presented in Table 3.7-12 above (where an increase of more than 2 dB would occur) are currently developed with commercial or office land uses. In these areas, the land use compatibility standard is 70 dBA L_{dn}. Project noise levels are not expected to exceed this noise level along any modeled roadway segments. Project-related traffic noise increases were modeled to be less than 5 dB along all of these segments.

Because Project-related traffic noise increases would not result in a 3 dB increase in areas where the noise levels would exceed the normally compatible level, or a 5 dB increase in areas where the applicable compatibility standard would not be exceeded, Project-related traffic noise impacts on existing land uses would be considered ***less than significant***.

Traffic Noise Effects on Future Onsite Land Uses under the Specific Plan

The Specific Plan could result in the development of new multi-family housing uses in the proposed housing and mixed-use overlays located in the southern portion of the Project Site. In addition, the development of day-care uses could occur in any portion of the Specific Plan area. Increased traffic generation associated with the Project could expose these new sensitive receptors to excessive noise levels. Refer to Table 3.7-13 for modeled traffic noise along the roadway segments in the Specific Plan area.

As shown in Table 3.7-13, traffic noise levels along the roadway segments in the Specific Plan area would vary. Noise levels along Cherry Avenue north of San Bruno Avenue and south of Bayhill Drive were modeled to be in the range of 65.1 to 65.4 dBA L_{dn}, which would exceed the “normally acceptable” compatibility criterion for new multi-family land uses (65 dBA L_{dn}). Traffic noise levels along San Bruno Avenue where new Project residences could be developed would also exceed the 65 dBA L_{dn} compatibility standard, with noise levels in the range of 67.3 to 69.0 dBA L_{dn}. Note that all modeled onsite noise levels from roadway segments adjacent to or within the Specific Plan area were below the “normally acceptable” compatibility criterion for day-care and school uses. For this reason, potential noise impacts on interior or exterior areas of any onsite day-care centers developed under the Specific Plan would be less than significant.

With regard to noise at exterior use areas for residential land uses, noise may also exceed the “normally acceptable” compatibility standard of 65 dBA L_{dn}. However, Specific Plan Policy 3-13, which generally states that outdoor areas for sensitive land uses shall be designed so as to be exposed to less traffic noise, either by locating them farther from nearby roadways or by orienting buildings and other shielding features to reduce noise at outdoor use areas, would reduce any effects on outdoor use areas.

Table 3.7-13. Modeled Traffic Noise Impacts on Future Project Land Uses

Roadway	Segment	Year 2040 Without Project (dB Ldn)	Year 2040 With Project[a] (dB Ldn)	Type of Future Land Use	Most Stringent Applicable Compatibility Standard[b]	Exceeds Standard ?
Bayhill Drive	West of Cherry Avenue	55.5	58.5	MFR[c]	65.0	No
Bayhill Drive	East of Cherry Avenue	57.5	58.9	MFR[c]	65.0	No
Bayhill Drive	West of El Camino Real	59.2	61.0	DC[d]	70.0	No
Cherry Avenue	North of W. San Bruno Avenue	64.4	**65.4**	MFR[c]	65.0	**Yes**
Cherry Avenue	South of Bayhill Drive	63.9	**65.1**	MFR[c]	65.0	**Yes**
San Bruno Avenue	West of Cherry Avenue	68.0	**68.6**	MFR[c]	65.0	**Yes**
San Bruno Avenue	East of Cherry Avenue	67.3	**67.9**	MFR[c]	65.0	**Yes**
San Bruno Avenue	East of Traeger Avenue	66.7	**67.3**	MFR[c]	65.0	**Yes**
Elm Avenue	North of W. San Bruno Avenue	53.3	56.0	DC[d]	70.0	No
Traeger Avenue	North of San Bruno Avenue	55.6	57.7	MFR[c]	65.0	No

Notes:

a. Based on traffic volumes from Maximum Office Scenario, which are higher than those of Maximum Housing Scenario.

b. The MFR land use compatibility standard ("normally acceptable") of 65 dBA L_{dn} is more stringent than the schools standard (applicable to day-care facilities) and therefore presented for segments where either MFR or day-care uses could be developed.

c. MFR = multi-family residential

d. DC = day care. Note that this means only that a day-care facility could be located along this segment, not that it necessarily would be.

Although exceedances of the "normally acceptable" compatibility standard for residential uses could occur if no specific effort is taken to reduce interior noise, compliance with Title 24 and building code requirements (as discussed in City of San Bruno General Plan Policy HS-35) would be required. Treatments that could be applied to comply with Title 24 include but are not limited to upgraded acoustical insulation and/or selecting door and window seals that help attenuate noise. Compliance with these regulations would ensure that interior noise levels for new onsite residential land uses would be reduced to within the allowable levels for proposed onsite residential land uses. In addition, compliance with Specific Plan Policy 6-1, which requires new residential and hotel uses in the Planning Area complete an acoustical evaluation of building materials to ensure interior noise levels of below 45 dBA, would also ensure adequate interior noise levels for project sensitive land uses. The modeled noise levels for the residential and mixed-use overlays are in the "conditionally acceptable" range (i.e., development is allowed as long as a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design to ensure appropriate interior noise levels). Therefore, it is expected that interior noise levels can be reduced to the appropriate levels with implementation of noise insulation features as part of the design of Project residential buildings. This impact would be ***less than significant***. No mitigation measures are required.

Other Noise-Generating Uses

Development under the Specific Plan would be expected to result in the siting of noise sources, such as emergency generators; heating, ventilation, and air-conditioning (HVAC) equipment; other mechanical equipment, in new outdoor gathering spaces and at loading docks. The following discussion evaluates noise impacts associated with these onsite uses.

HVAC Noise

HVAC equipment can produce sound levels in the range of about 70 to 75 dBA at 50 feet, depending on the size of the equipment (Hoover and Keith 2000). Future buildings developed under the Specific Plan could be located as close as 80 feet from the single-family residences south of San Bruno Avenue. At a distance of 80 feet, potential HVAC noise levels from a single HVAC unit would be in the range of 66 to 71 dBA $L_{eq,}$

To not exceed applicable thresholds, mechanical equipment must not result in noise levels of 10 dB above ambient. Note that ambient noise levels in this area vary greatly, with short-term measurements on the Project Site measuring 61 to 73 dBA L_{eq} during a 15-minute measurement. The 1-hour L_{eq} noise levels recorded by the long-term meters ranged greatly as well. For example, the lowest L_{eq} recorded at the LT-2 location was approximately 58 dBA L_{eq}, but the highest L_{eq} recorded was approximately 74 dBA L_{eq}, indicating a 16 dB range in 1-hour L_{eq} levels at this location. The 1-hour L_{eq} noise levels varied in the same way at the other long-term measurement locations.

At this time, it is not known if HVAC equipment would be shielded or enclosed. Although shielding for HVAC equipment could be included, and HVAC equipment may be located more than 80 feet from noise-sensitive land uses, no reduction from shielding or increased distances can be assumed at this stage (because plan-specific details are not yet known). In addition, it is likely that more than one unit would be installed for each Project building and that multiple units may be operating simultaneously in proximity to one another during Specific Plan operations. Based on the measured ambient noise levels in the vicinity of the Project Site (with some 1-hour L_{eq} noise levels as low as 58 dBA L_{eq}), noise from HVAC equipment could result in a 10 dB or greater increase in ambient noise levels, which would exceed City Noise Ordinance limits for mechanical equipment. For the reasons described above, HVAC equipment for future buildings developed under the Specific Plan could result in noise levels in excess of standards. Noise from the use of HVAC equipment under the Specific Plan would be considered potentially significant, and mitigation is required.

Emergency Generator Noise

With regard to emergency generators, emergency generators included in the development of future buildings under the Specific Plan could also result in the generation of audible noise during testing. As with HVAC equipment, noise from emergency generator testing would be limited by the same City Noise Ordinance limitations on mechanical equipment.

Specific details regarding the emergency generators proposed for Specific Plan uses are not known at this time. As an example, a 1,500-kilowatt (kW) generator could generate a noise level of 74 dBA at a distance of 7 meters, or 23 feet (Cummins Corporation 2013), and a 500 kW generator could generate a noise level of 72 dBA at a distance of 7 meters, or 23 feet (Cummins Corporation 2013). Depending on the size and make or model of the generators installed, actual generator noise could be even greater. Some additional noise attenuation could be achieved through shielding, in the form of exhaust mufflers or generator enclosures; however, specific details about generator shielding for future generators under the Specific Plan are also not known at this time.

Noise levels at nearby sensitive land uses (LT-1, LT-2, and LT-3) were all between approximately 74 and 75 dBA L_{dn}, with daytime (7:00 a.m. to 7:00 p.m.) 1-hour L_{eq} noise levels as low as 66 dBA L_{eq} and nighttime 1-hour L_{eq} noise levels as low as 58 dBA L_{eq}. Emergency generator testing would be limited to daytime hours, when the ambient noise level is typically higher because of the influence of traffic noise as well as other potential noise sources. However, because the exact generators proposed for use are not known at this time, and design features with the potential to attenuate noise (mufflers, enclosures, etc.) have not been identified, it is possible that noise levels from emergency generator testing under the Specific Plan could be 10 dB greater than ambient noise levels. Noise from the use of future emergency generators under the Specific Plan would be considered potentially significant, and mitigation is required.

Other Onsite Sources of Operational Noise

Buildout of the Project could introduce other potential sources of noise, such as outdoor use areas with amplified music, loading docks, a central plant (including chillers and cooling towers), and mechanical equipment. To comply with Section 6.16.050 of the City Municipal Code, mechanical equipment cannot generate noise levels that exceed ambient noise levels by 10 dB or more at any adjacent property line. Specific details about equipment locations and noise-generating activities under the Specific Plan are not known at this time. For that reason, it cannot be known with certainty if all future noise-generating sources developed as part of the Specific Plan would result in noise that would be below this level.

With regard to amplified music, per the San Bruno Municipal Code, the operation of sound-amplifying equipment as part of future development under the Specific Plan would be limited to the hours of 8:00 a.m. to 8:00 p.m. each day, except on Sundays and legal holidays; sound-amplifying equipment for commercial purposes would not be operated (or permitted) on Sundays or legal holidays (unless a special permit is granted). Further, the operation of sound-amplifying equipment for noncommercial purposes related to future Specific Plan development would occur only between the hours of 10:00 a.m. and 8:00 p.m. on Sundays and legal holidays (unless a special permit is granted). Also per the City Municipal Code, noise from outdoor gatherings with amplified music must not exceed a level of 15 dB above the ambient base noise level, as measured at a distance of 100 feet from the sound source. (A permit must also be obtained to produce amplified music, per the City Code.) The precise types of events, and the noise levels from amplified music or speech at the events, cannot be known with certainty at this time. Per the analysis of amplified sound in the Phase I analysis, it is possible that amplified speech or music may result in a 15 dB increase over ambient noise levels.

Because the potential exists for numerous noise sources to be developed under the Specific Plan that could generate noise levels in excess of applicable standards and/or result in substantially temporary/periodic or permanent increases in ambient noise levels, noise impacts from the siting of noise-generating uses under the Specific Plan would be considered potentially significant, and mitigation is required.

Mitigation Measures

Compliance with the San Bruno Municipal Code and the aforementioned Specific Plan policies would reduce noise impacts from new noise-generating sources. **Mitigation Measure NOI-2** and **Mitigation Measure NOI-3** would ensure that noise from future onsite noise-generating land uses and events with amplified sound would comply with the applicable criteria set forth in the City of San Bruno General Plan and Municipal Code. This impact would be considered ***less than significant with mitigation***. **Mitigation Measure NOI-2** is not required for the Phase I Development, which is analyzed separately below.

Mitigation Measure NOI-2: Siting of Noise-Generating Uses.

A noise analysis shall be required for new development under the Specific Plan (except for Phase I) that includes onsite noise-generating activities (besides amplified music, addressed in Mitigation Measure NOI-3) and equipment (e.g., HVAC equipment, emergency generators, loading docks, and mechanical equipment) with the potential to generate noise levels in excess of ambient noise levels or applicable standards. This analysis shall be conducted prior to the first Project-approval action other than the Phase I Development.

The analysis shall be prepared by persons qualified in acoustical analysis and/or engineering and demonstrate with reasonable certainty that the operational noise sources associated with the proposed use would not adversely affect nearby noise-sensitive uses and would not result in a noise level that would be in excess of applicable standards. All recommendations from the acoustical analysis necessary for ensuring that noise sources would meet applicable requirements of the noise ordinance and would not result in 10 dB or more increases in ambient noise levels shall be incorporated into the building design and building operations. Should the analysis demonstrate that predicted noise levels may not meet applicable requirements, the City shall require completion of a detailed noise control plan (by a person qualified in acoustical analysis and/or engineering) that includes the incorporation of noise reduction measures (e.g., using quieter equipment, installing construction barriers or enclosures) prior to the first Project-approval action.

Mitigation Measure NOI-3: Operation of Sound Amplifying Equipment.

For special events involving the use of amplified music, per the City Municipal Code, the sound level emanating from sound-amplifying equipment shall be limited such that it is not more than 15 dB above the ambient base noise level, as measured at a distance of 100 feet from the sound source. In the absence of measured ambient sound levels, the zone ambient noise level for residential land uses, as defined by the City Municipal Code, Section 6.16.030, *ambient noise level limits* may be used*.* The zone ambient noise level for residential uses is 60 dB during daytime hours (7:00 a.m. to 10:00 p.m.) and 45 dB during nighttime hours (10:00 p.m. to 7:00 a.m.). Therefore, when using the zone ambient noise level, the daytime sound level limit is 75 dBA and the nighttime limit is 60 dBA.

Per the City Municipal Code, the user of sound-amplifying equipment shall file a registration statement with the City Manager 10 or more days prior to the date on which the equipment is intended to be used. Registration must include information such as "the maximum sound-producing power of the sound-amplifying equipment, including the wattage to be used; the volume in decibels of the sound that will be produced; and the approximate distance from which sound will be audible."

Should the City have reason to believe that noise from amplified music or speech at a given event may exceed 15 dB over the ambient noise level at a distance of 100 feet from the source, the City shall either require a noise analysis demonstrating expected compliance with the applicable noise restrictions or require noise monitoring during the event to measure actual sound levels and enable real-time reductions in amplified noise, if necessary. Should an analysis be conducted, the analysis shall be prepared by persons qualified in acoustical analysis and/or engineering and demonstrate with reasonable certainty that the proposed use would not adversely affect nearby noise-sensitive uses. As a result of this analysis, modifications to the location, design, and/or proposed equipment associated with the event may be required so that noise would not result in exceedances of the allowable level. Should monitoring be conducted, persons qualified in acoustical analysis and/or engineering shall conduct both ambient and event noise measurements, and real-time reductions in noise as a result of monitoring results must be possible (e.g., turning the volume down).

Phase I Development

Construction

Daytime Construction Noise

Construction of the Phase I Development would result in the demolition of onsite structures and associated surface parking areas and construction of approximately 440,000 square feet of new office and accessory space and two new subterranean parking structures. The Phase I Site is located along the northern perimeter of the Project Site, east of Cherry Avenue. The nearest noise-sensitive land uses are multi-family residential uses approximately 450 feet northwest of the Phase I Site, west of Cherry Lane and south of Commodore Drive.

As discussed under *Regulatory Setting*, pursuant to San Bruno Municipal Code Section 6.16.070, noise from construction activities within any residential zone, or within 500 feet of any residential zone, is limited to 85 dBA, as measured at 100 feet from the source between the hours of 7:00 a.m. and 10:00 p.m., unless a permit has been obtained to exceed this level. Between the hours of 10:00 p.m. and 7:00 a.m., construction noise is limited to 60 dBA at 100 feet from the source, unless a permit is obtained.

Construction equipment expected to be used for Phase I demolition and construction was identified by the Phase I Development applicant and is included in Table 3.7-14. This table shows the corresponding L_{max} sound levels at 50 feet and the typical acoustical use factors for each piece of construction equipment expected to be used during Phase I Development. The acoustical use factor, or utilization factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction. It is used to estimate L_{eq} values from L_{max} values. The L_{eq} values based on these utilization factors are also shown in the table.

Table 3.7-14. Estimated Construction Noise Emission Levels for Phase I Development (L_{max} and L_{eq})

Construction Activity	Equipment	L_{max} at 50 feet (dBA)[a]	Acoustical Usage/ Utilization Factor (percent usage)	L_{eq} at 50 feet (dBA)[a]
Demolition	Bulldozer	82	40%	78
	Excavator	81	40%	77
	Front End Loader	79	40%	75
Site Preparation - Shoring and Excavation	Auger Drill Rig	84	20%	77
	Excavator	81	40%	77
	Dozer	82	40%	78
	Front end loader	79	40%	75
Foundations and Garage Construction	Crane	81	16%	73
	Concrete Pump Truck	81	20%	74
Grading	Dozer	82	40%	78
	Grader	85	40%	81
	Compactor	83	20%	76

Construction Activity	Equipment	L_{max} at 50 feet (dBA)[a]	Acoustical Usage/ Utilization Factor (percent usage)	L_{eq} at 50 feet (dBA)[a]
Superstructure	Crane	81	16%	73
	Concrete Pump Truck	81	20%	74
	Forklift[c]	84	40%	80
Building Construction	Forklift[c]	84	40%	80
	Generator	81	50%	78
	Crane	84	40%	80
Bus Stop	Forklift[c]	84	40%	80
	Generator	81	50%	78
	Crane	84	40%	80
Exterior Façade	Crane	81	16%	73
Paving - Grundy Lane and Temp Parking Lot	Paver	77	50%	74
	Compactor	83	20%	76
	Grader	81	16%	73

Source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: https://www.gsweventcenter.com/Draft_SEIR_References/2006_01_Roadway_Construction_Noise_Model_User_Guide_FHWA.pdf. Accessed: December 18, 2018.

Notes:

a. These values represent the loudest noise levels generated by each equipment type at a distance of 50 feet.

b. These values were calculated by subtracting 6 dBA from each L_{max} value at 50 feet, based on geometric attenuation for a point source.

c. Forklift represented by a tractor in FHWA Construction Noise Model.

Table 3.7-10, presented previously in the Specific Plan analysis section, identifies the combined noise level (both L_{max} and L_{eq}) from operation of the three pieces of construction equipment expected to be used during the loudest phase of construction (i.e., grading) at various distances from the noise source for the Phase I Development. As shown in this table, combined construction noise levels at a distance of 450 feet (the distance to the nearest residential land use from the Phase I Site) would be approximately 65 dBA L_{eq} and 69 dBA L_{max}. As with the Project, combined construction noise at a distance of 100 feet (based on the assumptions described above) is expected to be approximately 78 dBA L_{eq} and 80 dBA L_{max}. Therefore, noise from construction during daytime hours would not exceed the criterion specified in the City Noise Ordinance of 85 dBA at 100 feet. For these reasons, noise from daytime Phase I Development construction activities would not result in a substantial temporary increase in noise levels that would be in excess of applicable local standards, and this impact would be ***less than significant***.

Nighttime Construction Noise

Based on information received from the Phase I Development applicant, most construction associated with the Phase I Development would occur during the daytime hours of 7:00 a.m. to 5:30 p.m., with some work occurring between 5:30 p.m. and 10:00 p.m. Although no nighttime work during the hours of 10:00 p.m. to 7:00 a.m. is specifically planned at this time, the Phase I Development applicant has indicated that it is possible that a limited amount of nighttime construction work (specifically, for a potential concrete pour) could be necessary. For example, if there is a scheduling conflict that inhibits the delivery of concrete from the batch plant during daytime hours, this activity may need to occur during nighttime hours. As previously stated, between the hours of 10:00 p.m. and 7:00 a.m., construction noise from activities occurring within 500 feet of a residential land use would be limited to 60 dBA at 100 feet, unless a permit has been obtained from the director of the City Public Works Department or his/her designee. If required, nighttime construction activities would most likely be located more than 500 feet from the nearest residential land use because the 450-foot distance is measured to the nearest (northernmost) Phase I Site property line. However, to ensure a conservative assessment, this analysis assumes that equipment associated with a nighttime concrete pour could be operating within 500 feet of the multi-family residential complex located northwest of the Phase I Site.

The equipment required for a nighttime concrete pour would include a concrete mixer truck and a concrete pump truck. Table 3.7-15 presents the potential noise levels during simultaneous operation of this equipment at a distance of 100 feet from the noise source. Note that utilization factors for these pieces of equipment have been increased from the standard levels of 40 percent (for the mixer) and 20 percent (for the pump truck) to 90 percent and 80 percent, respectively. This is to account for the fact that, during these nighttime concrete pours, the equipment will likely be operational the majority of the time to ensure the concrete pour can be completed in the time allotted.

Table 3.7-15. Phase I Development Noise from Potential Nighttime Concrete Pour (L_{max} and L_{eq})

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Construction Condition: Nighttime Concrete Pour			
Source 1: Concrete mixer truck – sound level (dBA) at 50 feet =	79	90%	75.0
Source 2: Concrete pump truck – sound level (dBA) at 50 feet =	81	80%	74.0
Calculated Data:			
All Sources Combined – L_{max} sound level (dBA) at 50 feet =			83 L_{max}
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =			82 L_{eq}

Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	83	82
100	**-6**	**77**[a]	76
200	-12	71	70
300	-16	68	67
400	-18	65	64
450	-19	64	63
500	-20	63	62

Notes:

- Geometric attenuation based on 6 dB per doubling of distance.
- This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.

As shown in Table 3.7-15, noise levels from a concrete mixer trunk and a concrete pump truck are estimated to be approximately 76 dBA L_{eq} at a distance of 100 feet and as such would exceed the City's 60 dBA nighttime construction noise standard. Therefore, the Phase I Development's construction noise impacts during nighttime hours would be potentially significant, and mitigation is required.

Mitigation Measures

Implementation of **Mitigation Measure NOI-1**, described previously in the Project analysis, would reduce Phase I Development impacts associated with compliance with local noise standards during potential nighttime construction to a less-than-significant level. This impact would be ***less than significant with mitigation.***

Haul Truck Noise

Haul trucks used during construction of the Phase I Development could take one of two routes when ~~when~~accessing or leaving the Phase I Site, according to the Project applicant. One option would be to travel east on Bayhill Drive towards El Camino Real, then turn left onto El Camino Real to access I-380 east or west via the ramps just north of Bayhill Drive and vice versa. The other option would be for the trucks to travel north on Cherry Avenue from the Phase I Site to Sneath Lane, then turn left to access the I-280 south or north via the ramps west of Cherry Avenue. The loudest L_{eq} levels recorded during the normal 12-hour construction day along these main routes were approximately 72 dBA L_{eq} along Cherry Avenue north of the Phase I Site and 74 dBA L_{eq} along El Camino Real east of the Phase I Site. The quietest L_{eq} levels recorded during the normal 12-hour construction day along these main haul truck routes were recorded to be 66, and 68 dBA L_{eq}, respectively.

Based on information provided by the Phase I Development applicant, a worst-case construction day (which would occur during the site preparation phase) would involve approximately 216 one-way (108 round-trip) haul truck trips. Although it is likely that the truck trips would be somewhat spread out throughout the day, assuming a fourth of these haul truck trips could occur during a worst-case peak hour provides for a conservative analysis. Based on this assumption, there could be as many of 54 one-way haul truck trips occurring per worst-case hour during the most hauling-intensive phase of construction (Site Preparation – Shoring and Excavation). Note that most phases of construction would have far fewer daily haul truck trips (ranging from 4 to 100 trips per day instead of 216). For this reason, it is important to note that this many haul truck trips would not occur daily for the duration of Phase I Development construction.

Some noise-sensitive land uses, including single- and multi-family residential land uses, are located along the two identified potential haul routes. For example, a number of multi-family residential complexes are located along Cherry Avenue, north of the Project Site and south of Sneath Lane. In addition, some single-family homes and a hotel use are located along the haul route following Bayhill Drive and El Camino Real. Therefore, noise-sensitive land uses would be exposed to haul truck noise during the Phase I Development construction period. A total of 54 haul trucks per hour on a roadway with speeds of approximately 40 miles per hour (mph) would result in a 1-hour L_{eq} noise level of about 64 dBA L_{eq} at a distance of 50 feet from the roadway centerline (e.g. the center of the roadway, not the closest lane of traffic) on a given roadway.

The City's Municipal Code does not include a specific threshold that pertains to construction haul truck noise. Therefore, anticipated loudest-hour haul truck noise was assessed to determine if a 3 dB increase over ambient noise levels would occur.

Compared to the lowest recorded daytime L_{eq} values (refer to Table 3.7-8) of 66 and 68 dBA L_{eq} along Phase I Development haul routes, 54 haul trucks per hour would have the potential to slightly increase the 1-hour L_{eq} depending on the existing ambient noise level at the time of day when trucks are traveling. For example, the addition of haul truck noise at 64.0 dBA L_{eq} on El Camino Real to an existing ambient of 66.2 dBA would result in an overall noise level of 68.2 dBA L_{eq}. The addition of haul truck noise of 64.0 dBA L_{eq} on Cherry Avenue to an existing ambient of 67.8 dBA L_{eq} would result in an overall noise level of approximately 69.3 dBA L_{eq}. Therefore, the addition of haul truck noise could temporarily add up to approximately 1.5 to 2 dB to existing noise levels.

During the hours of the day when the ambient noise level is louder, haul trucks would add less noise to the overall ambient levels. For example, where the existing loudest daytime ambient noise level was 71.8 dBA L_{eq}, the addition of haul truck noise would result in a worst-hour peak noise level of 72.5 dBA (or a 0.7 dB increase). Where existing ambient was 72.9 dBA L_{eq}, truck noise could increase the overall 1-hour ambient L_{eq} to 73.4 dBA L_{eq}. For these reasons, as a worst-case, haul truck noise could temporarily increase worst-case hourly ambient noise levels along haul routes by between 0.5 and 2.0 dB on haul routes in the Project area.

Since an increase in noise of less than 3 dB would occur (with a change of 3 dB considered barely noticeable), temporary noise increases from haul trucks along project haul routes for the Phase I Development would result in a less than significant impact related to a substantial temporary increase in noise during project construction. Temporary noise impacts from construction haul trucks during the Phase I Development would be ***less than significant***.

Operation

Traffic Noise Effects on Existing Land Uses

Traffic generated by the Phase I Development would be less than the overall traffic generated by buildout of the Project because the Phase I Development is a component of the Project. As discussed in the Project analysis above, traffic generated by the Project would not result in a significant increase in noise along any roadway segments vicinity of the Project Site because Project-related traffic noise increases would not result in a 3 dB increase in areas where the normally compatible level is exceeded or a 5 dB increase in areas where the normally compatibility criteria is not exceeded. Because the Phase I Development is a component of the Project and would result in less traffic than the overall Project, traffic noise impacts from implementation of the Phase I Development would also be ***less than significant***.

Other Noise-Generating Uses

HVAC Noise

The Phase I Development would involve the use of HVAC systems and equipment. Some of this equipment would be located in equipment rooms within the proposed Phase I Development buildings, and some would be located on the roof of the Phase I Development buildings.

HVAC equipment can produce sound levels in the range of about 70 to 75 dBA at 50 feet, depending on the size of the unit (Hoover and Keith 2000). The type of HVAC units proposed for the Phase I Development would most likely generate noise levels similar to standard levels. The nearest noise-sensitive land uses to the proposed Phase I Development buildings are the multi-family residential uses northwest of the Phase I Site. This complex is more than 550 feet away from the closest edge of the northern Phase I Development building. At a distance of 550 feet, noise from multiple (up to 10) HVAC units would be expected to be in the range of 59 to 64 dBA L_{eq} without accounting for shielding. However, intervening structures and noise from the I-380 overpass would provide additional attenuation. For these reasons, noise levels experienced at the multi-family residential uses would be expected to be even lower than these levels.

As described above under *Regulatory Setting*, the City's Noise Ordinance establishes that "no person shall operate any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property plane of any property to exceed the ambient base noise level by more than 10 decibels." The section also includes an allowance for a 20 dB increase above ambient for a period not to exceed 30 minutes during any 24-hour period.

The existing ambient noise level in the vicinity of the multi-family residential uses is approximately 74 dBA L_{dn} (refer to LT-3), with a measured maximum hourly L_{eq} of 71.8 dBA L_{eq} and a minimum hourly L_{eq} of 67.8 dBA L_{eq}. Therefore, existing noise levels at this location are already greater than the estimated hourly average noise level that would result from the operation of up to 10 HVAC units on the Phase I Site. HVAC noise from rooftop equipment at the Phase I Site would not be expected to exceed the ambient noise level by 10 dB or more at this location. Noise impacts from HVAC equipment on nearby noise-sensitive land uses would be ***less than significant***.

Emergency Generator Noise

The Phase I Development proposes the installation of two 500 kW emergency generators. One generator would be located in each of the two Phase I buildings. Generators would be located in generator rooms, which would pump exhaust outside the building. It is anticipated that the exhaust would exit through the roofs of the buildings. Generators would be tested for approximately 1 hour per month, during which time the noise ordinance criteria for machinery would apply. All emergency generator testing would be expected to occur during normal working (daytime) hours.

According to the City Noise Ordinance, "no person shall operate any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property plane of any property to exceed the ambient base noise level by more than 10 decibels." The section also includes an allowance for a 20 dB increase above ambient for a period not to exceed 30 minutes during any 24-hour period.

The proposed generator room in the North Building would be located near the northwest corner of the building footprint, on sublevel 1 (in the garage). This would be more than 580 feet from the nearest multi-family residential land uses northwest of the Phase I Site. The proposed generator room in the South Building would be located in the far northwest corner of the building, also on sublevel 1 (in the garage). This would be more than 950 feet from the same multi-family land uses northwest of the Phase I Site and 580 feet from the nearest single-family residential land uses south of San Bruno Avenue. Although noise from operation of the generator engine would be inside the garage of the proposed Phase I buildings, which would greatly reduce audible generator engine noise outside of the Phase I Site, unmuffled generator noise from the two Phase I buildings was modeled near the northwest corner of each building perimeter to provide a worst-case assessment.

Operation of one 500 kW generator can result in noise levels of 72 dBA at a distance of 23 feet without accounting for shielding (Cummins Corporation 2013). Noise from the operation of this generator at a distance of 580 feet (the distance to the nearest noise-sensitive land use), without accounting for noise reduction from being inside the building or from any potential mufflers or silencers used, would be 47 dBA. Measured noise levels at nearby sensitive land uses (LT-1, LT-2, and LT-3) were all between approximately 74 and 75 dBA L_{dn}. The measured maximum hourly L_{eq} at LT-3, which is representative of the nearby multi-family residences, was 71.8 dBA L_{eq}, and the minimum hourly L_{eq} in this area was 67.8 dBA L_{eq}. Because the lowest measured ambient noise level in the vicinity of the Phase I Site was approximately 68 dBA L_{eq} and generator noise at this location would be up to 47 dBA L_{eq}, generator noise during testing is not predicted to result in an increase in overall noise levels. Therefore, generator operations would not result in a 10 dB or greater increase in ambient noise in the vicinity of the Phase I Site, and generator noise impacts would be ***less than significant***.

Loading Dock and Loading Yard Noise

The Phase I Development proposes one main loading dock off the proposed North Building. Although some deliveries would be required at the proposed South Building, these deliveries would come from the North Building because delivery personnel would access the South Building from a below-grade connection at the North Building. Some limited additional loading and unloading activities, as well as ride-share drop-off and pickup activities, would occur along the white-striped areas in front of both buildings. However, most loading activities would occur at the designated loading dock or yard.

According to the Phase I Development Applicant, it is estimated that a maximum of 11 deliveries per peak hour would occur at the loading dock for the North Building. To comply with applicable thresholds, mechanical equipment and loading dock activities must not result in noise levels of 10 dB above the ambient sound level.

The nearest sensitive receptor to the proposed loading dock is the multi-family residential complex west of Commodore Park (see Figure 3.7-2), which is approximately 550 feet from the North Building loading dock.

Loading dock operations from a single truck unloading have been measured to generate approximately 71 dBA L_{eq} at a distance of 50 feet (AECOM 2018). At a distance of 550 feet, this noise level would be reduced to approximately 44 dBA L_{eq}. Therefore, even if all of the 11 peak-hour loading and unloading trips occur at the North Building at the same time, noise from loading activities would only be approximately 55 dBA L_{eq} (if each loading activity takes at least 5 minutes, which is conservative). In addition, the loading and unloading of each truck would be short term and intermittent. Also, I-380 is between the loading areas and the nearest residences, which results in louder ambient noise levels. The lowest measured daytime hourly L_{eq} at the closest residential land uses was 67.8 dBA L_{eq}, and (as stated above) the expected maximum hourly noise level resulting from loading dock activity at these residences is approximately 55 dBA L_{eq}. When combining noise levels that are more than 10 dB apart, the louder noise level dominates overall noise and is equal to the combined noise level. For these reasons, noise generated by loading dock activities would not result in an increase in the ambient noise levels at the nearest residential land uses. Impacts related to loading dock noise from Phase I implementation would be ***less than significant.***

Transit Center

As a part of Phase I Development, a private multi-modal transportation hub would be developed. This transportation hub would be essentially a bus stop for YouTube/Google employee shuttles. This transit center would be on the Phase I Site between Grundy Lane and Bayhill Drive (running north/south), east of Traeger Avenue and west of Elm Avenue. The transit center would be more than 750 feet from the nearest residences (south of the Project Site for the Specific Plan and south of West San Bruno Avenue).

According to the Phase I Development applicant, approximately 15 buses would visit the multi-modal transportation hub on a given day, resulting in 30 round-trip bus trips to and from the multi-modal transportation hub. This analysis assumes that a worst-case peak hour (e.g., the peak hour in the morning when employees come to work or evening when employees leave work) could have approximately half, or up to 16, bus trips to and from the multi-modal transportation hub.

Assuming 16 bus trips to the multi-modal transportation hub during a worst-case hour, with a bus speed of approximately 25 mph, noise from 16 buses accessing the multi-modal transportation hub during a single hour would result in an hourly average noise level at the nearest residents (750 feet south of the transit center) of 36.3 dBA L_{eq}. If all 16 buses were idling at this location, hourly average noise from idling would be approximately 35.0 dBA L_{eq} at the nearest residences. These noise levels are far below the existing ambient hourly L_{eq} measured in the vicinity of the nearest noise-sensitive receptors during daytime hours (refer to LT-2) of between 69.9 dBA L_{eq} and 73.8 dBA L_{eq}. For this reason, noise impacts from the Phase I transit center would be ***less than significant.***

Amplified Music and Sound

The Phase I Development would include a number of outdoor gathering spaces. According to information received from the Phase I Development applicant, events could take place at all outdoor gathering areas associated with the Phase I Development. Gatherings could be small or large and could include amplified music. Large gatherings would not exceed the prescribed building/fire code maximum occupancy levels. Refer to Figure 3.7-3 for the locations of the proposed outdoor gathering spaces and their maximum capacities.

Section 6.16.110, *Amplified Sound,* of the City Municipal Code states that "every user of sound-amplifying equipment shall file a registration statement with the city manager ten or more days prior to the date on which the sound-amplifying equipment is intended to be used." The registration statement must contain the information described above in the *Regulatory Setting* section. Specifically, in addition to other information, the applicant must include information about the maximum sound-producing power of the sound-amplifying equipment, including the wattage to be used, the volume in decibels of the sound that will be produced, and the approximate distance the sound from the sound-amplifying equipment will travel.

As also described in the *Regulatory Setting* section, according to Section 6.16.160, *Amplified Sound—Regulations,* the only sounds that are allowed to be amplified are music and human speech. In addition, the use of sound-amplifying equipment is restricted to the hours of 8:00 a.m. and 8:00 p.m. each day, except legal holidays (during which time no operation of sound-amplifying equipment for commercial purposes is permitted; the operation of sound-amplifying equipment for noncommercial purposes is limited to the hours of 10:00 a.m. and 8:00 p.m.). In addition to these hourly restrictions, noise from amplifying equipment may not exceed 15 dB above the ambient base noise level, as measured at a distance of 100 feet from the sound source.

The largest gathering area for the Phase I Development is level 1 of the South Building's courtyard area, which has a maximum occupancy of 2,131 persons. The South Building proposes other gathering areas, including a level 2 side yard area with a maximum occupancy of 494 and smaller gathering areas with maximum occupancy numbers ranging from 42 to 123 persons. The largest courtyard or outdoor area at the North Building is the level 2 courtyard area, which has a maximum capacity of 494 persons. There is another side yard area on this level that has a maximum capacity of 471 persons as well as two smaller terrace areas that have a maximum occupancy of 15 persons. The level 1 courtyard open space for this building has a maximum capacity of 170.

Source: SHoP Architects, 2019.

Graphics ... 00389.17 (4/29/20) AB

Figure 3.7-3
Phase 1 Outdoor Gathering Areas

With regard to ambient noise levels at noise-sensitive land uses near the Phase I Site, the measured maximum hourly L_{eq} between the hours of 8:00 a.m. and 8:00 p.m. near the multi-family residential complex northwest of the Phase I area was 71.8 dBA $L_{eq.}$ The minimum hourly L_{eq} at this location was 67.8 dBA L_{eq}. Near the single-family residential land uses south of San Bruno Avenue, the maximum daytime hourly L_{eq} recorded between the hours of 8:00 a.m. and 8:00 p.m. was 73.8 dBA L_{eq}, and the minimum daytime hourly L_{eq} recorded was 69.9 dBA L_{eq}. Noise levels on the Phase I Site were quieter than these levels. The measured L_{eq} at ST-2, a short-term measurement location northwest of the intersection of Traeger Avenue and Bayhill Drive (along the southern perimeter of the Phase I Site), was 61.2 dBA L_{eq} at approximately 1:00 p.m. on a weekday. Because the threshold for amplified music applies at 100 feet from the noise source and ambient noise in the vicinity of the Phase I Site was as low as 61.2 dBA L_{eq}, amplified music or speech noise levels of 77 dBA L_{eq} or more would result in an exceedance of the City's standard for amplified noise (15 dB above ambient at 100 feet).

Although noise from the specific types of events that may occur is not known, noise from a variety of event types must be considered to ensure that event noise would be within allowable levels. Noise levels from smaller events where amplified speech would occur would be generally lower than noise levels from amplified live or recorded music, depending on the volume used to project the sound. For example, noise from human speech being amplified by a single loud speaker has been measured to be in the range of approximately 56 to 58 dBA L_{eq} at 100 feet,[3] whereas noise from a small live band, which included a guitar and vocalists, with a single amplifier has been measured to be approximately 65 dBA L_{eq} at 100 feet.[4]

Larger concert-type events could generate higher noise levels. For example, noise measurements during concerts at Shoreline Amphitheater were measured to be between 60 and 63 dBA at a distance of between 1,400 and 1,750 feet (City of Mountain View 2017). At a distance of 100 feet, noise from concerts would be much louder. For example, noise levels from the same concert at Shoreline Amphitheater would be in the range of approximately 83 to 88 dBA at 100 feet (City of Mountain View 2017).[5] This noise level is more than 15 dB above the measured ambient noise level in the Phase I Site area. Specifically, these noise levels are 22 to 27 dBA greater than the measured 61.2 dBA L_{eq}. Although concerts or events at the Phase I Site would be much smaller than those occurring at Shoreline Amphitheater, the noise levels generated by amplified music for large-scale events, especially concerts, could be similar. Therefore, although operation of sound-amplifying equipment for Phase I would be subject to the allowable hours defined in the City's Municipal Code, amplified noise from events, such as concerts (e.g., potentially generating up to 83 to 88 dBA at 100 feet, as cited above) could result in noise levels that would be more than 15 dB above the ambient level at a distance of 100 feet from the source (because the lowest measured daytime L_{eq} in the vicinity of the Phase I Site was approximately 61.2 dBA L_{eq}). Given the potential to exceed the City's Municipal Code noise restrictions, noise impacts related to amplified sound associated with special events at the Phase I Development would be considered potentially significant, and mitigation is required.

Mitigation Measures

Implementation of **Mitigation Measure NOI-3**, described previously in the Project analysis, would reduce the Phase I Development impact associated with amplified music or speech from events to a less-than-significant level. This impact would be ***less than significant with mitigation.***

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3 Wedding Noise: Noise measured at ~140 feet from an individual officiating over a wedding (single speaker) was measured to be between ~55 and 56 dBA L_{eq}, equating to a noise level of 58 to 59 dBA L_{eq} at 100 feet.

4 Acoustic Band Noise: Noise measured at ~73 feet from a small live band with a single amplifier that included a guitar and vocals was measured to be 67.5 dBA L_{eq}, equating to 64.8 dBA L_{eq} at 100 feet.

5 Based on the attenuation equation of 20 x log (distance 1/distance 2)

Crowd Noise

As mentioned above, the Phase I Development would include a number of courtyards and outdoor areas that could have gatherings of any size, up to the maximum capacity of each area. The largest of these areas is the level 1 South Building courtyard, with a maximum occupancy of 2,131 persons. Amplified music from this area is analyzed above. However, an additional source of noise from courtyards and gathering areas is crowd noise. Crowd noise, in the form of cheering or applause, can vary, based on the type and size of a given event. However, according to Section 6.16.050, *Noise Levels Exceeding Ambient Base Level*, of the City Municipal Code, "any noise level exceeding the zone ambient base level at the property plane of any property, or exceeding the zone ambient base level on any adjacent residential area zone line or at any place of other property (or, if a condominium or apartment house, within any adjoining apartment) by more than 10 dB shall be deemed to be prima facie evidence of a violation of the provisions of this chapter." Therefore, the potential for crowd noise from events to exceed this limit must be assessed.

Noise from one person shouting at a distance of approximately 3 feet is about 82 dBA (Harris, Cyril M. 1979). At a distance of 50 feet, this noise level would be reduced to about 58 dBA. However, the noise from 2,131 people (the capacity of the level 1 South Building courtyard) shouting at a distance of 50 feet would be approximately 92 dBA L_{max}.

The nearest noise-sensitive receptors to the level 1 South Building courtyard are the single-family residences located south of the Project Site, south of San Bruno Avenue. This area is approxaimtely 650 feet from the level 1 South Building courtyard. At distance of 650 feet, the 92 dBA L_{max} sound level would reduce to about 69 dBA L_{max}. A conservative assumption is that people would be shouting 50 percent of the time. This would result in an L_{eq} of 66 dB L_{eq} (3 dB less than the L_{max} value). At a distance of 650 feet, noise from 2,131 persons shouting 50 percent of the time over a given hour would therefore be approximately 66 dBA L_{eq}. Persons talking "very loudly" instead of shouting would result in a lower overall noise level (Harris, Cyril M. 1979). This would instead result in a noise level of about 58 dBA L_{eq} at 650 feet. This noise level is below the existing ambient hourly L_{eq} measured in the vicinity of noise-sensitive receptors during daytime hours (refer to LT-2), which were between 69.9 dBA L_{eq} and 73.8 dBA L_{eq}. Crowd noise from Phase I Development events would therefore not be expected to result in a 10 dB increase in the existing ambient noise level. Noise impacts from crowds at onsite gatherings or events would be ***less than significant.***

Impact NOI-2a. The Project would not result in the generation of excessive ground-borne vibration or ground-borne noise levels (Project: Less than Significant)

Impact NOI-2b. The Phase I Development would not result in the generation of excessive ground-borne vibration or ground-borne noise levels (Phase I Development: Less than Significant)

Project

Construction activity is a main cause of vibration effects, and the two main concerns associated with construction-generated vibration are annoyance/sleep disturbance and potential structural damage. In addition, land uses where ground-borne vibration could interfere with operations or equipment (such as research facilities, manufacturing facilities, hospitals, and university research operations) are also considered vibration sensitive (Federal Transit Administration 2018). The degree of sensitivity depends on the specific equipment that would be affected by the ground-borne vibration. The potential for construction-related vibration impacts depends on the proximity of construction activities to sensitive receptors, the number and types of construction equipment, and the duration of construction equipment use.

With regard to potential vibration-related annoyance impacts on residential land uses (or land uses where people normally sleep), a vibration level of 0.04 PPV in/sec is considered to be distinctly perceptible for continuous/frequent intermittent sources of vibration (e.g., construction activity). As discussed previously, the nearest residence is approximately 80 feet from Project construction areas. Using the vibration attenuation equation [$PPV = PPV_{ref} \times (25/Distance)^{1.5}$], vibration from demolition and construction equipment at a distance of 80 feet can be calculated (vibration levels at 80 feet are shown in Table 3.7-3).

Although pile driving, which has the greatest potential to generate vibration, would not occur during Project construction, large earth-moving equipment would be used. The most vibration-intensive piece of equipment anticipated to be used during construction is an auger drill. As shown in Table 3.7-3, an auger drill could generate vibration levels of 0.016 PPV in/sec at a distance of 80 feet (the distance to the nearest residential land uses). This vibration level is below the "distinctly perceptible" level of 0.04 PPV in/sec shown in Table 3.7-5. In addition, most construction activities would not occur during nighttime hours when people normally sleep. Therefore, vibration effects during Project construction related to annoyance would not be substantial at nearby residential land uses. Commercial or office land uses are not typically considered to be vibration sensitive. In addition, because no pile driving would occur with the Project, vibration levels would generally be low even at closer distances (where non-residential land uses may be located). For example, the vibration level from an auger drill is below the "distinctly perceptible" criterion at a distance of 45 feet (0.037 PPV in/sec) and below the "strongly perceptible" criterion at distances of 25 feet or more. Therefore, even if these land uses are relatively close to Project construction, annoyance-related vibration impacts would be ***less than significant***.

With regard to potential damage impacts, the nearest buildings would most likely be the existing office or commercial buildings that may remain operational during Project construction. The applicable damage criterion for modern commercial buildings is 0.5 PPV in/sec for continuous/frequent intermittent sources of vibration (e.g., construction equipment), as shown in Table 3.7-4. Note that the exact location of the nearest commercial or office building to vibration-generating construction activities is not known at this time. However, an auger drill (the most vibration-intensive piece of equipment proposed for construction) generates vibration levels below this damage threshold at distances of 8 feet and greater. Although the use of an auger drill during construction is not expected to occur that close to existing onsite structures, even if this were to occur, vibration levels would be below the applicable damage criteria for onsite buildings. Offsite buildings are even farther from the nearest onsite building; therefore, vibration-related damage effects on offsite buildings would not be expected to occur. For these reasons, damage-related vibration impacts from implementation of the Project would be ***less than significant.***

Phase I Development

With regard to potential vibration-related annoyance impacts on residential land uses from construction of the Phase I Development, the same vibration level of 0.04 PPV in/sec (which is considered to be distinctly perceptible for continuous/frequent intermittent sources of vibration) is applied. The nearest residential land uses are as close as approximately 450 feet from Phase I construction areas. Using the vibration attenuation equation [$PPV = PPV_{ref} \times (25/Distance)^{1.5}$], vibration from demolition and construction equipment at a distance of 450 feet can be calculated.

The most vibration-intensive piece of equipment proposed for use during Phase I Development construction is an auger drill. As shown in Table 3.7-3, an auger drill could generate vibration levels of 0.011 PPV in/sec at a distance of 100 feet. At a distance of 450 feet, the vibration level of this equipment would be reduced to 0.001 PPV in/sec. This vibration level is well below the "distinctly perceptible" level of 0.04 PPV in/sec shown in Table 3.7-5. Therefore, vibration effects during Project construction related to annoyance would not be substantial at nearby residential land uses. Commercial or office land uses are not typically considered to be vibration sensitive. In addition, because no pile driving would occur with the Phase I Development, vibration levels would generally be low, even at closer distances (where non-residential land uses may be located). For example, the vibration level from an auger drill is below the "distinctly perceptible" criterion at a distance of 45 feet (0.037 PPV in/sec) and below the "strongly perceptible" criterion of 0.1 PPV in/sec at distances of 25 feet or more. Therefore, as is the case for annoyance-related vibration impacts under the Project, annoyance-related vibration for the Phase I Development would be ***less than significant***.

With regard to potential damage impacts, as discussed for the Project analysis, the nearest buildings to Phase I construction areas would most likely be the onsite office or commercial buildings that may remain operational during construction of the Phase I Development. As discussed above, the applicable damage criterion for modern commercial buildings is 0.5 PPV in/sec for continuous/frequent intermittent sources of vibration (e.g., construction equipment). Note that the exact location of the nearest commercial or office building to vibration-generating construction activities under the Phase I Development is not known at this time. However, an auger drill (the most vibration-intensive piece of equipment proposed for construction) generates vibration levels below the damage criterion at distances of 8 feet or greater. Although the use of an auger drill during construction is not expected to occur that close to existing onsite structures, even if it were to occur, vibration levels would be below applicable damage criteria for onsite buildings. For these reasons, damage-related vibration impacts from the construction of the Phase I Development would be ***less than significant.***

Impact NOI-3a. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the Project would not expose people residing or working in the project area to excessive noise levels. (Project: Less than Significant)

Impact NOI-3b. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the Phase I Development would not expose people residing or working in the project area to excessive noise levels. (Phase I Development: No Impact)

Project

There are no private airstrips in the vicinity of the Project Site. Therefore, there would be no impact related to aircraft noise from private airstrips.

SFO is the closest public airport to the Project Site. As shown in Figure 3.7-1, the 2012 ALUCP 65 dB CNEL noise contour crosses the northeast corner of the Project Site. No other portions of Project Site fall within an airport noise contour. The 2012 ALUCP designates recreational, commercial, and industrial/production land uses as compatible uses within the 65 dB CNEL contour. Residential land uses are designated as conditionally compatible uses within the 65 dB CNEL contour, meaning that the use must be sound insulated to achieve an indoor noise level of 45 dB CNEL or less from exterior sources in order to be considered compatible.

Land uses allowed under the proposed Specific Plan within the 65 dB CNEL contour include commercial and office land uses. According to Table IV-1 of the ALUCP (entitled Noise/Land Use Compatibility Criteria), these types of land uses are considered compatible with all airport-related noise levels. Residential land uses would not be permitted within the portion of the Project Site that is within the 65 dB

CNEL contour. For these reasons, impacts related to excessive aircraft noise from public airports or private airstrips for the Specific Plan would be ***less than significant***.

Phase I Development

There are no private airstrips in the vicinity of the Phase I Site. Therefore, there would be no impact related to aircraft noise from private airstrips. The Phase I Site is not within an airport noise contour established in the ALUCP. Therefore, there would be ***no impact*** related to aircraft noise from private airstrips or public airports at the Phase I Site.

3.7.4 Cumulative Impacts

Impact C-NOI-1a. The Project, in combination with past, present, and reasonably foreseeable future projects, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. (Project: Less than Significant with Mitigation)

Impact C-NOI-1b. The Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. (Phase I Development: Less than Significant with Mitigation)

The cumulative context for noise and vibration impacts varies, depending on the source of the noise or vibration. Specifically, the geographic context for cumulative construction noise impacts typically encompasses cumulative projects within no more than 1,000 feet of the Project Site. Beyond 1,000 feet, the contributions of noise from the construction of other projects would be greatly attenuated through both distance and intervening structures, and their contribution would be expected to be minimal. The cumulative context for stationary-source noise impacts, such as noise effects from HVAC or other mechanical equipment, and for vibration effects from construction activities is generally smaller than this distance (a few hundred feet at most). Finally, cumulative impacts related to vehicular traffic noise are based on overall forecast average daily traffic along roadway segments in the vicinity of the Project Site, which includes traffic increases from all growth within the Project area, as predicted in the traffic model.

Noise generated by construction and operation of the Project could combine with noise generated by construction and operation of other projects in the area. Specifically, the 841 San Bruno Avenue Medical Office is adjacent to the Project Site, across San Bruno Avenue, and a proposed office development is located on the Project Site in the vacant parcel west of 901 Cherry Avenue.[6] The Mills Park Plaza Project, at 751 El Camino Real, is also relatively close to the Project site (just over 300 feet south of the Project Site along El Camino Real). Other projects, such as the 111 San Bruno Avenue Mixed-Use Project, are farther from the Project Site (more than 1,400 feet away for 111 San Bruno Avenue). Construction and onsite operations associated with these projects would have little likelihood of contributing to a cumulative

[6] As noted in Chapter 2, *Land Use*, of the Specific Plan, this project could be constructed under an existing, fully entitled development agreement or, if the development agreement expires, as part of buildout under the Project. Therefore, it is conservatively evaluated in the EIR as both a component of the Project and a cumulative project. As stipulated by Policy 2-3 in the Specific Plan, if the project is developed under the existing Development Agreement, the net new square footage allowed on Parcel 5 would be reduced from 287,000 square feet by the number of square feet developed under the Development Agreement .

construction or stationary-source operational noise impact. However, because some cumulative projects are close to or within the Project Site and the precise schedules for construction of those projects are not known at this time, the potential for a cumulative construction or operational noise impact must be assessed. In addition, increases in traffic resulting from the development of these types of projects, as captured in the cumulative average daily traffic, have the potential to increase traffic noise in the area. Cumulative traffic noise effects must therefore also be assessed.

Project

Construction Noise

Construction noise is a localized impact that reduces as distance from the noise source increases. In addition, intervening features (e.g., buildings) between construction areas and nearby noise-sensitive land uses result in additional noise attenuation by providing barriers that break the line of sight between noise-generating equipment and sensitive receptors. These barriers can block sound wave propagation and somewhat reduce noise levels at a given location. Construction activities for the Project could coincide with similar activities for other projects in the area. Specifically, the 841 San Bruno Avenue Medical Office is adjacent to the Project Site, across San Bruno Avenue, and currently under construction; it would most likely be completed by the time construction of the Project begins. Construction of the proposed office project in the vacant parcel next to 901 Cherry Avenue could also occur concurrently with Project-related development if permits are granted under the existing development agreement for that project. The Mills Park Plaza Project, at 751 El Camino Real, is also relatively close to the Project site (just over 300 feet south of the Project Site along El Camino Real). This project could be under construction at the same time as some components of the Project and could expose receptors between the two projects to combined noise levels greater than would occur with a single construction project.

It is unknown at this time which nearby projects could be undergoing construction at the same time as the Project, and schedules for development projects can change. It is therefore difficult to predict whether construction activities associated with nearby projects would overlap with those for the Project. However, based on the fact that other projects are proposed in proximity to the Project Site, and based on the fact that Project development is expected to occur over an approximate 20-year period, it is likely that construction activities from some nearby projects (including potential projects that are not yet known) could either overlap with Project construction activities or occur consecutively (exposing the same receptors to construction noise for a longer period of time). In addition, it is possible that multiple future development projects under the Specific Plan could have construction periods that would overlap with one another. If projects near one another occur in close succession, the overall duration of construction noise in the area would increase.

Construction noise in the city is limited to 85 dBA at a distance of 100 feet during the daytime hours of 7:00 a.m. to 10:00 p.m. Each individual future project must ensure compliance with this construction noise standard. For that reason, there is little likelihood for noise from multiple individual construction projects in the vicinity of the Project to combine and increase the overall noise level at a single receptor. However, it is also not possible to ensure that construction noise from multiple projects would not combine because of the unknown schedules of future projects and the expected duration of Project construction. In addition, development of the Project may involve some nighttime construction activities, during which time the construction noise threshold would be lower. Should other nearby projects involve nighttime construction, and should those activities occur simultaneously with nighttime construction for the Project, noise could combine to result in a cumulative construction noise impact during nighttime hours. Because the construction impacts of the Project could combine with those of nearby projects (either by occurring concurrently and increasing noise levels or occurring consecutively and increasing the duration of noise exposure), cumulative construction noise impacts would be considered potentially significant.

With regard to the potential for the Project to have a cumulatively considerable contribution to this cumulative impact during daytime hours, reasonable worst-case combined construction noise must be considered. Combined construction noise from the loudest types of construction activity (grading) for the Project would be approximately 78 dBA L_{eq} and 80 dBA L_{max} at a distance of 100 feet (refer to Table 3.7-9), which is approximately 7 dB below the allowable L_{eq} in the city. For this reason, the Project's contribution to this potential cumulative impact during daytime hours would not be considered cumulatively considerable.

With regard to cumulative haul truck activities, construction of nearby cumulative projects could occur concurrently with Project construction activities and could result in a greater amount of construction-related haul truck traffic on roadways near the Project Site. However, most cumulative projects are located such that the expected haul routes would not be the same as those for the Project. In addition, the timing, intensity, and location of cumulative project construction activities and how they might overlap with the timing, intensity, and location of construction activities under the Project are largely unknown (other than the Phase I Development, which is evaluated separately below). Therefore, it would be speculative to assume that peak hauling activities for cumulative projects would occur in combination with the Project to the extent that a significant cumulative impact would occur.

With regard to nighttime construction, it is possible that construction during nighttime hours would occur for some components of Project development. Between the hours of 10:00 p.m. and 7:00 a.m., construction noise is limited to 60 dBA at 100 feet in the city, unless a permit has been obtained from the director of the City Public Works Department or his/her designee. As shown previously in Table 3.7-10, most individual pieces of construction equipment proposed for Project construction activities would exceed 60 dBA at a distance of 100 feet. Note that construction during nighttime hours would not be a common occurrence but may occur for certain activities (concrete pours, etc.) if required to maintain the construction schedule. Nighttime construction would therefore be intermittent and temporary. However, noise from these activities may be audible at nearby noise-sensitive land uses and may exceed the 60 dBA limit at 100 feet. For this reason, the contribution of the Project to the cumulative construction noise impact during nighttime hours would be considered cumulatively considerable, and mitigation is required.

Mitigation Measures

Mitigation Measure NOI-1, described previously, would reduce construction noise impacts during nighttime hours to a less-than-significant level by ensuring that noise at a distance of 100 feet during nighttime construction activities would be below 60 dBA L_{eq}. With implementation of this mitigation measure, Project impacts would be reduced to a less-than-significant level, and the contribution of the Project to the potential cumulative impact would not be cumulatively considerable. This impact is considered ***less than significant with mitigation.***

Operational Noise

Traffic Noise Impacts

To determine the potential cumulative noise impacts in the Project area, traffic volumes from the existing scenario were compared to the 2040 with-Project scenario. The following thresholds (which are similar but slightly different from those described for the direct traffic impacts) were applied to determine if cumulative traffic noise impacts would occur in the Project vicinity:

1. An increase of more than 5 dBA from existing to year 2040 with-Project conditions is considered a significant cumulative traffic noise increase, regardless of the existing ambient noise level, and
2. In places where the existing or resulting noise environment is "conditionally acceptable," "normally unacceptable," or "clearly unacceptable," based on City of San Bruno Land Use Compatibility Guidelines, any noise increase greater than 3 dBA from existing to year 2040 with-Project conditions is considered a significant cumulative traffic noise increase.

If a cumulative traffic noise impact is anticipated along a given roadway segment, then the proposed Project's contribution to that impact must be assessed.

Table 3.7-16 shows cumulative traffic noise increases, as well as an analysis of potential impacts, along roadway segments in the vicinity of the Project Site. Note that this table shows only roadway segments with an increase of at least 2 dB between cumulative without-Project and cumulative with-Project conditions (noting that a 3 dB or 5 dB increase is necessary to result in a potential cumulative impact, depending on the overall noise level in a given area). The full summary of traffic noise modeling for all roadway segments is included in Appendix 3.7-1.

As shown in Table 3.7-16, no significant cumulative impacts would be expected to occur along any modeled roadway segments. This is because, even if the land use compatibility standard would be exceeded in the future year, the incremental increase from existing to year 2040 with-Project conditions would be below the allowable level (e.g., a smaller than 3 dB increase along Cherry Avenue south of Sneath Lane where multi-family residential land uses are located). For areas where the land use compatibility standard would not be exceeded in a future year, a 5 dB increase would be allowed; however, a 5 dB increase would not occur along any modeled roadway segments. Therefore, the potential for the Project to have a cumulatively considerable contribution to a cumulative impact need not be assessed. Cumulative traffic noise impacts would be ***less than significant.***

HVAC Noise

In general, most operational sources of noise do not generate noise that is perceptible far beyond the edge of a project site. Although noise from Specific Plan HVAC equipment would be localized and would attenuate rapidly with distance, it is possible that Specific Plan HVAC equipment could generate noise in excess of allowable levels, depending on the type of equipment installed and the location of the equipment. It is also possible noise-generating uses from nearby projects (especially the proposed office development at the vacant parcel west of 901 Cherry Avenue and potential projects adjacent to the Project Site, such as 841 San Bruno Avenue) could be close enough to one another that HVAC noise from multiple projects could combine and result in a cumulative noise impact. Therefore, because complete details about HVAC equipment for the proposed Specific Plan and for nearby development projects are not known at this time, it is possible that noise from HVAC for the proposed Project could combine with HVAC noise from adjacent projects to cause a cumulative noise impact at nearby residential land uses. This cumulative impact is considered potentially significant.

Table 3.7-16. Cumulative Traffic Noise Impact Assessment

Roadway Segment		Existing (dB L_{dn})	Year 2040 No Plan (dB L_{dn})	Year 2040 with Plan[a] (dB L_{dn})	Type of Land Use	Most Stringent Applicable Compatibility Standard	Exceeds Compatibility Standard?	Allowable Increase	Increase from Existing to Year 2040 With Plan (dB)	Exceeds Allowable Increase?
Cherry Avenue	South of Sneath Lane	62.4	63.6	64.5	MFR[d]	65.0	Y	3.0	2.1	N
Cherry Avenue	North of San Bruno Avenue	63.3	64.4	65.4	O/C[b]	70.0	N	5.0	2.1	N
Bayhill Drive	West of El Camino Real	58.8	59.2	61.0	O/C[b]	70.0	N	5.0	2.2	N
Bayhill Drive	East of Cherry Avenue	56.6	57.5	58.9	O/C[b]	70.0	N	5.0	2.3	N
Cherry Avenue	North of Bayhill Drive	62.3	63.9	64.7	O/C[b]	70.0	N	5.0	2.4	N
Cherry Avenue	South of Bayhill Drive	62.5	63.9	65.1	O/C[b]	70.0	N	5.0	2.6	N
Traeger Avenue	North of San Bruno Avenue	54.7	55.6	57.7	O/C[b]	70.0	N	5.0	3.0	N
Cemetary Entrance	North of Sneath Lane	44.9	48.1	48.1	Cemetery	75.0	N	5.0	3.4	N
Elm Avenue	North of San Bruno Avenue	52.6	53.3	56.0	O/C[b]	70.0	N	5.0	3.4	N
Bayhill Drive	West of Cherry Avenue	55.1	55.5	58.5	O/C[b]	70.0	N	5.0	3.4	N

Notes:

a. Maximum Office Scenario selected as worst-case for traffic noise.

b. O/C = office buildings, business, commercial, and professional

c. SFR = single-family residential

d. MFR = multi-family residential

HVAC equipment can produce sound levels in the range of 70 to 75 dBA at 50 feet, depending on the size of the equipment (Hoover and Keith. 2000). As discussed previously, future buildings developed under the Specific Plan could be as close as 80 feet from the single-family residences south of San Bruno Avenue. At a distance of 80 feet, potential HVAC noise levels from this equipment would be in the range of 66 to 71 dBA L_{eq}, The lowest L_{eq} recorded in this area (at the LT-2 location) was approximately 58 dBA L_{eq}. To not exceed applicable thresholds, mechanical equipment must not result in noise levels of 10 dB above ambient. It is therefore possible that Specific Plan HVAC equipment could combine with HVAC noise from nearby future projects to exceed thresholds and that Specific Plan HVAC noise independently could exceed the applicable thresholds. Therefore, the Specific Plan's contribution to this potential cumulative impact would be considered cumulatively considerable. This impact would be considered significant, and mitigation is required.

Mitigation Measures

With implementation of **Mitigation Measure NOI-2** (The Siting of Noise-Generating Uses), Project-related impacts would be reduced to less-than-significant levels, and the contribution of the Project to the potential cumulative impact would not be cumulatively considerable. This impact is considered ***less than significant with mitigation.*** Mitigation Measure NOI-2 is not required for the Phase I Development, which is analyzed separately below.

Emergency Generators

Emergency generators included in the development of future buildings under the Specific Plan could also result in the generation of audible noise during testing. Noise from emergency generator testing is limited by the mechanical equipment limitations from the City Noise Ordinance and must not be more than 10 dB above ambient.

It is important to note that emergency generators are tested intermittently (often on the order of once per month for 30 to 60 minutes), and their use is often exempted during actual emergencies. Although specific details of the emergency generators proposed for Specific Plan or nearby future projects are not known at this time, it is very unlikely that the testing of an emergency generator for the proposed Project would occur concurrently with the testing for a generator at a nearby project. Even if testing were to occur simultaneously (which is unlikely), it is not likely that the generators would be close enough to one another for the noise to combine at a given individual receptor. Cumulative noise impacts related to emergency generator testing would be ***less than significant***.

Other Sources of Non-Traffic Operational Noise

Other potential sources of noise could also be developed under the Specific Plan, such as outdoor use areas that may have amplified music, loading docks, a central plant (including chillers and cooling towers), and other mechanical equipment. To comply with applicable thresholds, mechanical equipment and loading dock activities must not result in noise levels of 10 dB above ambient. Because specific details about the mechanical equipment (including the design, size, and location) as well as the loading docks for both adjacent cumulative projects and future development under the Specific Plan (including the locations and activity levels at the loading areas) are not known at this time, it is not possible to determine if noise from mechanical equipment and loading dock operations would be 10 dB or more above ambient. In addition, with regard to noise from events or gatherings where amplified music may occur, the "sound level emanating from sound-amplifying equipment shall not exceed 15 dB above the ambient base noise level, as measured at a distance of 100 feet from the sound source." Because specific details about the types of events with noise amplification that may occur under the Specific Plan are not known at this time, it is not possible to determine if noise from these types of events would exceed the ambient noise level by 15 dB or more.

Although precise details related to the potential development of stationary sources of noise for nearby projects are not known at this time, it is possible that stationary sources of noise from cumulative projects would combine to result in a cumulative noise impact related to operational noise. Specifically, proposed development projects in the vicinity of the Specific Plan (including some adjacent to the Specific Plan area) may have sources of stationary noise. Depending on the location of, and the noise levels produced by, these sources, noise from operation of other projects could combine with noise generated by development within the Project Site for the Specific Plan to result in excessive noise. Cumulative impacts related to the siting of noise-generating uses/stationary-source operational noise (not inclusive of HVAC and emergency generators, which were described previously) would be potentially significant.

Because Specific Plan operations were determined to result in potentially significant impacts, or noise levels in excess of applicable thresholds, implementation of the Specific Plan could result in a cumulatively considerable contribution to this cumulative impact without mitigation. This impact would be considered significant.

Mitigation Measures

With implementation of **Mitigation Measure NOI-2** (The Siting of Noise-Generating Uses) and **Mitigation Measure NOI-3** (The Operation of Sound Amplifying Equipment), Project impacts would be reduced to less-than-significant levels. The contribution of the Project to the potential cumulative impact would not be cumulatively considerable with implementation of this mitigation measure. This impact would be considered ***less than significant with mitigation.*** Mitigation Measure NOI-2 is not required for the Phase I Development, which is analyzed separately below.

Phase I Development

Construction

As described previously under the cumulative construction noise analysis for the Project, construction noise is generally localized. It reduces as distance from the noise source increases. Construction activities for the Phase I Development could coincide with similar activities for other projects in the area. For example, the 841 San Bruno Avenue Medical Office is adjacent to the Specific Plan footprint, and construction activities at this site could overlap Phase I Development construction. However, this project is farther from the Phase I Site than the Project Site (south of the Phase I Site, across West San Bruno Avenue), at a distance of more than 1,500 feet. For this reason, noise from construction of this project is less likely to combine with Phase I construction than Specific Plan construction in general. Similarly, the Mills Park Plaza Project, at 751 El Camino Real, is also relatively close to the site for the Project (just over 300 feet south of the Project Site along El Camino Real) but farther from the Phase I Site (more than 1,800 feet). In addition, construction of the proposed office project in the vacant parcel next to 901 Cherry Avenue could occur concurrently with the Phase I Development if permits are granted under the existing development agreement for that project. This project is located approximately 350 feet from the western edge of the Phase I Site. Because some of these projects could be under construction at the same time as some components of the Phase I Development, it is possible that simultaneous construction activities could expose receptors between two individual projects to combined noise levels greater than would occur with a single construction project.

Although it is possible that construction activities for nearby projects would overlap with construction activities for the Phase I Development, each individual future project must ensure compliance with the City's daytime construction noise standard (85 dBA at 100 feet during the daytime hours of 7:00 a.m. to 10:00 p.m.), unless a special permit is awarded. Therefore, it is unlikely that daytime construction noise from multiple individual construction projects would combine to increase the overall noise level at a single receptor. However, construction schedules for nearby projects are not known with certainty at this time. In addition, construction for nearby projects may involve louder activities (such as pile driving) that make it difficult to comply with the standard outlined above. For these reasons, it is possible the construction noise from the Phase I Development could combine with construction noise from nearby cumulative projects, particularly the proposed office building west of 901 Cherry Avenue, to result in excessive construction noise during daytime hours.

Construction of the Phase I Development may also involve some nighttime construction activities, during which time the construction noise threshold is lower. Should other nearby projects involve nighttime construction, and should those activities occur simultaneously with nighttime construction of the Phase I Development, construction noise could combine to result in a cumulative construction noise impact during nighttime hours. Ambient noise levels are typically lower during nighttime hours, and construction noise may be audible at greater distances during these times. Because the construction impacts of the Phase I Development could combine with those of nearby projects, cumulative construction noise impacts would be considered significant.

With regard to the potential for Phase I Development construction to make a cumulatively considerable contribution to a cumulative impact during daytime hours, reasonable worst-case combined construction noise must be considered. Combined construction noise from the loudest types of construction activity (grading) for the Phase I Development is expected to be approximately 78 dBA L_{eq} and 80 dBA L_{max} at a distance of 100 feet (refer to Table 3.7-9), which is approximately 7 dB below the allowable L_{eq} noise level in the city. For this reason, the contribution of Phase I Development construction to this potential cumulative impact during daytime hours would not be considered cumulatively considerable.

With regard to cumulative haul truck activities for the Phase I Development, there is a chance that construction of some cumulative projects mentioned previously could occur concurrently with Phase I Development construction activities and could result in more construction-related haul truck traffic near the Project Site. However, most cumulative projects are located such that the expected haul routes would not be the same as those for the Phase I Development, with the exception of the proposed office project in the vacant parcel next to 901 Cherry Avenue.

Construction at 901 Cherry Avenue could occur concurrently with construction of the Phase I Development. This project is of a similar size and scale of the Phase I Development and could be expected to require a similar number of total, daily, and hourly haul truck trips as the Phase I Development. Given the proximity of the two properties, it is possible that the haul routes for both projects could overlap. Since haul truck activity for the Phase I Development was determined to add up to 2 dB to surrounding roadway segments during peak hauling, it is possible that a 3 dB total increase could occur if hauling activities from the Phase I Development occurred along the same roadway segments and overlapped in time with hauling activities from the 901 Cherry development. Therefore, cumulative impacts from haul truck noise under the Phase I Development are conservatively considered to be significant. Since the Phase I Development's contribution could be up to 2 dB based on the direct impact analysis presented previously, the Phase I Development's contribution to this potential cumulative impact would be cumulatively considerable. This impact would be considered ~~***significant***~~ <u>significant</u>, and mitigation is required.

With regard to nighttime construction, it is possible that construction during nighttime hours would occur for some components of the Phase I Development. Between the hours of 10:00 p.m. and 7:00 a.m., construction noise is limited to 60 dBA at 100 feet in the city (unless a permit has been obtained from the director of the City Public Works Department or his/her designee. As shown previously in Table 3.7-10, most individual pieces of construction equipment proposed for Phase I Development construction activities would exceed 60 dBA at a distance of 100 feet. Note that construction during nighttime hours would not be a common occurrence but may occur for certain activities (concrete pours, etc.) if required to maintain the construction schedule. Nighttime construction would therefore be intermittent and temporary. However, noise from these activities may be audible at nearby noise-sensitive land uses and may exceed the 60 dBA limit at 100 feet. For this reason, as was the case with the Project, the contribution of the Phase I Development to the potential cumulative construction noise impact during nighttime hours would be considered cumulatively considerable. This impact would be considered significant, and mitigation is required.

<u>With implementation of the mitigation measures below, Phase I Development impacts would be reduced to less-than-significant levels, and the contribution of Phase I Development construction to the potential cumulative impact would not be cumulatively considerable. This impact would be considered ***less than significant with mitigation***.</u>

Mitigation Measures

Mitigation Measure NOI-1, described previously, would reduce construction noise impacts from construction of the Phase I Development during nighttime hours to less-than-significant levels by ensuring that noise at a distance of 100 feet during nighttime hours would be below 60 dBA L_{eq}, unless a permit is first obtained from the director of the City Public Works Department or his/her designee).

Implementation of **Mitigation Measure NOI-4** would reduce the potential cumulative impact related to construction-related haul truck noise for the Phase I Development to a less-than-significant level.

> **Mitigation Measure NOI-4: Coordination of Phase I Development Haul Truck Routes with 901 Cherry Avenue (only required for Phase I Development).**
>
> Prior to the issuance of a grading permit, the City shall determine whether hauling activities associated with the Phase I Development could occur simultaneously with hauling activities associated with the 901 Cherry Avenue development. If it is determined that hauling activities for both projects could occur simultaneously, the applicant shall consult with the City to coordinate the appropriate haul route(s) so that both projects are not conducting hauling activities at the same time and along the same route. The final haul route shall be subject to City approval.

~~With implementation of these mitigation measures, Phase I Development impacts would be reduced to less-than-significant levels, and the contribution of Phase I Development construction to the potential cumulative impact would be not be cumulatively considerable. This impact would be considered ***less than significant with mitigation.***~~

Operation

Traffic Noise Impacts

As shown in Table 3.7-11 (under the analysis for cumulative traffic impacts under the Specific Plan), no significant cumulative impacts would be expected to occur along any modeled roadway segments. Because Phase I Development traffic is included in the Specific Plan traffic volumes, and because no potential cumulative impacts were identified under the Specific Plan, the potential for the Phase I Development to have a cumulatively considerable contribution to a cumulative impact need not be assessed. Cumulative traffic noise impacts would be ***less than significant.***

Emergency Generator Noise

Although there are some new development projects proposed in the general vicinity of the Phase I Site, they may or may not require the use of emergency generators. However, even if they do require the use of emergency generators, the likelihood of the generators being tested simultaneously would be very low. In addition, as described under the Phase I analysis of generator noise, the closest Phase I generator to an offsite receptor would be the 500 kW generator in the North Building. This would be more than 580 feet from the nearby multi-family receptors northwest of the Project Site for Phase I. Noise from operation of this generator at a distance of 580 feet, without accounting for noise reduction from being inside the building or from any potential mufflers or silencers used, would be 47 dBA. This level of 47 dBA L_{eq} is far below the measured daytime lowest hourly L_{eq} of 67.8 dBA L_{eq} near the multi-family residences north of the Phase I Site. Therefore, even if cumulative projects require the use of emergency generators, and even if the testing periods happened to overlap, the likelihood of emergency generator testing from multiple projects combining to result in excessive noise levels at the residences in the Project vicinity is low. This cumulative impact is considered ***less than significant.***

HVAC Noise

As discussed previously, the Phase I Development would entail the installation of some HVAC equipment on the building roofs. HVAC equipment can produce sound levels in the range of 70 to 75 dBA at 50 feet, depending on the size of the unit (Hoover and Keith. 2000). It is possible that, when multiple projects are developed in proximity to one another, noise from mechanical equipment (such as HVAC equipment) could combine to increase the overall noise level in a given area.

The types of HVAC units proposed for the Project (and the components of the equipment proposed to be located on the Project rooftops) would generate noise levels in the range described above (70 to 75 dBA at 50 feet). Although there are some proposed projects in the general vicinity of the Phase I area, all projects (including Phase I of the proposed Project) must undergo an individual analysis to determine whether HVAC noise from their equipment would exceed applicable standards of the City. For this reason, noise from HVAC equipment for other projects in the Phase I vicinity would be unlikely to exceed the applicable standards.

As described previously under the Project-specific analysis for Phase I, HVAC noise from the Phase I Development at the nearest noise-sensitive land use would be expected to be in the range of 49 to 64 dBA L_{eq}, depending on how many units are installed and operating simultaneously. The existing ambient noise level at all measurement locations surveyed for the Specific Plan and Phase I was approximately 74 dBA L_{dn}. LT-3, the site closest to the nearby multi-family homes, had a measured maximum hourly L_{eq} of 71.8 dBA L_{eq} and a minimum hourly L_{eq} of 67.8 dBA L_{eq}. Therefore, all measured hourly noise levels in this area were greater than the estimated hourly average maximum noise level of 64 dBA L_{eq} (with 10 HVAC units running simultaneously) at this location. Based on the information presented above, and as discussed under the analysis of direct Project impacts, HVAC noise from rooftop equipment at the Phase I site would not be expected to exceed the ambient noise level by 10 dB or more.

Because cumulative projects in the Phase I vicinity would not be expected to result in noise levels from HVAC equipment in excess of standards, and because the proposed Project would also not result in HVAC noise levels of 10 dB or more above ambient, cumulative impacts related to HVAC noise would be ***less than significant.***

Loading Dock and Loading Yard Noise

Loading dock activities can result in noise that affects nearby sensitive land uses. As discussed previously, Phase I of the proposed Project, including both the North and South Building, would have one main loading dock at the North Building (with deliveries to the South Building coming from this location). Direct noise impacts from the Phase I loading dock were determined to be less than significant because of the short-term and intermittent nature of loading activities. In addition, proposed Phase I loading areas would either be below grade or located such that some shielding between the nearest receptors and loading activities would occur. These features would further reduce noise from loading dock activities.

Nearby cumulative projects could also involve noise-generating loading activities. However, these projects would also need to comply with applicable thresholds. In addition, noise from loading docks is generally localized and very short term and intermittent. As discussed previously, noise from Phase I loading dock activities would be below any applicable significance thresholds. It is also likely that cumulative projects with loading docks would also generate relatively localized short-term and intermittent noise that would not exceed applicable thresholds. For these reasons, loading dock noise from cumulative projects would not be expected to combine with loading noise from Phase I to result in a cumulative impact. Cumulative impacts related to loading dock noise would be ***less than significant***.

Multi-Modal Transportation Hub

As discussed previously, bus trips to and from the Phase I multi-modal transportation hub could generate noise. However, worst-case hourly estimated noise would be approximately 36.3 dBA L_{eq} if 16 one-way bus trips to or from the transit center occur in a peak hour. Note that it is likely that fewer trips per hour would occur on average. As mentioned previously, if 16 buses are idling at the transit center during a given hour, hourly average noise from idling would be approximately 35.0 dBA L_{eq} at the nearest residences. These noise levels would be far below the existing ambient hourly L_{eq} levels measured in the vicinity of these noise-sensitive receptors during daytime hours (refer to LT-2) of between 69.9 dBA L_{eq} and 73.8 dBA L_{eq}. Noise from Phase I multi-modal transportation hub activities would therefore not result in any increases in noise at the nearest sensitive receptors. Because bus pass-by or idling noise at the Phase I multi-modal transportation hub would be so low, it would not be expected to combine with similar noise sources from cumulative nearby projects. Cumulative impacts related to noise from the multi-modal transportation hub would be ***less than significant***.

Amplified Music and Sound and Crowd Noise

It is unlikely that cumulative projects in the vicinity of the Project would have large noise-generating gatherings that would occur simultaneously with Phase I events. In addition, the nearest projects to the Phase I area would be more than 1,500 feet from the Phase I area. For this reason, gatherings at nearby cumulative project sites would not be expected to generate excessive noise that could combine with crowd and amplified music noise from the Phase I Site to result in a cumulative noise impact. Cumulative impacts related to crowd noise and amplified music would be ***less than significant***.

Impact C-NOI-2a. The Project, in combination with past, present, and reasonably foreseeable future projects, would not expose persons to or generate excessive ground-borne vibration or ground-borne noise levels (Project: Less than Significant)

Impact C-NOI-2b. The Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not expose persons to or generate excessive ground-borne vibration or ground-borne noise levels (Phase I Development: Less than Significant)

Project

With regard to the potential for a cumulative vibration-related damage impact to occur, because vibration impacts are based on instantaneous PPV levels, worst-case ground-borne vibration levels from construction are generally determined by whichever individual piece of equipment generates the highest vibration levels. Unlike the analysis for average noise levels, in which noise levels of multiple pieces of equipment can be combined to generate a maximum combined noise level, instantaneous peak vibration levels do not combine in this way**.** Vibration from multiple construction sites, even if they are close to one another, would not be expected to combine to raise the maximum PPV. For this reason, the cumulative impact of construction vibration from multiple construction projects near one another would generally not combine to increase PPV vibration levels. In essence, vibration effects are highly localized.

Vibration effects resulting from construction of the Specific Plan would not be expected to combine with vibration effects from cumulative projects in the Project area. Therefore, cumulative ground-borne vibration impacts related to both potential damage and annoyance would be considered ***less than significant*** for the Specific Plan.

Phase I Development

As described above for the Specific Plan, vibration effects resulting from construction of the Phase I Site would not be expected to combine with vibration effects from cumulative projects in the Project area because vibration from multiple construction sites, even if they are close to one another, would not be expected to combine to raise the maximum peak (PPV) vibration level. Therefore, cumulative ground-borne vibration impacts related to both potential damage and annoyance would be considered ***less than significant*** for the Specific Plan.

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3.8 Population and Housing

This section describes the environmental and regulatory setting for population and housing in the city of San Bruno as it pertains to the Bayhill Specific Plan and Phase I Development (Project). It also describes the population and housing impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ EIR, the Project comprises the Bayhill Specific Plan (Specific Plan) and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level, and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described.

No questions or concerns related to population and housing were raised in the Notice of Preparation (NOP) or revised NOP comments.

3.8.1 Existing Conditions

3.8.1.1 Regulatory Setting

This section summarizes regional and local regulations and policies applicable to the Project concerning population and housing. There are no federal regulations regarding population and housing applicable to the Project.

State

Sustainable Communities Strategy and SB 375

Senate Bill (SB) 375, adopted in 2008, requires preparation of a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP). Plan Bay Area 2040, the SCS for the region, was jointly approved in July 2013 by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG).[1] The plan represents a transportation and land use/housing strategy for how the San Francisco Bay Area (Bay Area) will address its transportation mobility and accessibility needs, land development, and greenhouse gas emissions reduction requirements through 2040.

Projections 2040, a component of Plan Bay Area, provides a series of statistical compendia on demographic, economic, and land use changes in coming decades. The current version covers the period between 2010 and 2040. The projections illustrate how the region will accommodate growth if local jurisdictions adopt a set of policies consistent with the vision of Plan Bay Area. Growth is distributed within the region among counties, cities, and Priority Development Area (PDAs), which are designated areas that are expected to accommodate more than two-thirds of all regional growth by 2040. The Project Site is within a designated PDA, as shown in Figure 2-9 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR.

[1] MTC is the government agency responsible for regional transportation planning, financing, and coordinating transportation services in the nine-county San Francisco Bay Area.

Housing Element Law

Housing Element law requires local jurisdictions to plan for and allow the construction of a share of the region's projected housing needs. This share is called the Regional Housing Needs Allocation (RHNA). Housing needs for each region in the state are determined by the State Department of Housing and Community Development and submitted to Councils of Government for allocation to local jurisdictions. ABAG is ultimately responsible for determining the share of regional housing needs to be met by each city in the Bay Area. State housing law has established four housing categories. The categories are based on the region's median income, taking into account households ranging in size from one to six people. These four affordability categories are used by ABAG in allocating regional housing needs.

- Very Low: 0 to 50 percent of the area's median income
- Low: 50 to 80 percent of the area's median income
- Moderate: 80 to 120 percent of the area's median income
- Above Moderate: greater than 120 percent of county median family income

In the Bay Area, the SCS and ABAG's RHNA methodology are mutually reinforcing and were developed together to meet the overlapping objectives of SB 375 and the Housing Element law. These objectives include increasing the supply, diversity, and affordability of housing; promoting infill development and a more efficient land use pattern; promoting an improved intraregional relationship between jobs and housing; protecting environmental resources; and promoting socioeconomic equity. SB 375 requires that the RHNA be consistent with the SCS and establishes an eight-year cycle for the RHNA. The RHNA has been incorporated into Plan Bay Area (MTC and ABAG 2017).

Currently, the RHNA identifies allocated housing units for the 2015 to 2023 period (Table 3.8-1). ABAG identified 1,155 units (defined by income category) as the City's fair share of the regional housing need for the 2015 to 2023 period (Table 3.8-1) (ABAG 2013).

Table 3.8-1. ABAG Regional Housing Need Allocation for the City of San Bruno and County of San Mateo 2015–2023 (Units) [a]

Income Level	City Need	County Need	Regional Need
Very Low	358	4,595	46,680
Low	161	2,507	28,940
Moderate	205	2,830	33,420
Subtotal of Affordable Units	*724*	*9,932*	*109,040*
Above Moderate[b]	431	6,486	78,950
Total	1,155	16,418	187,990

[a] The jurisdictions in Napa, San Mateo, and Solano counties each chose to form a subregion to carry out the RHNA process. These numbers reflect the final allocations adopted by each of the three subregions.

[b] Above Moderate = households with incomes greater than 120 percent of county median family income.

Source: Association of Bay Area Governments. 2013. *Regional Housing Need Plan, San Francisco Bay Area: 2015–2023*. Adopted July 18, 2013.

Local

The City of San Bruno General Plan (General Plan), adopted in 2009 and amended in 2013 as part of the San Bruno Transit Corridors Plan, forecasts that the city will have 49,774 residents, 18,670 housing units, and 24,867 jobs by 2025 (General Plan buildout) (City of San Bruno 2009). Of this total, General Plan–related growth between 2005 and 2025 comprises 4,156 residents, 1,572 housing units, and 7,125 jobs,[2] not including existing development or development that was already under way in 2005, identified as "pending development" in the General Plan. The 7,125 jobs are associated with forecast growth totaling 1,982,990 square feet of mixed-use, commercial, office, and industrial building area.

To date, actual growth in the city has far under-paced the additional growth forecast in the General Plan. According to the City, development completed since adoption of the General Plan includes 5,000 square feet of restaurant space, 7,250 square feet of retail/commercial space, 67,586 square feet of professional office space, and 14 housing units. This does not include existing or pending development at the time the General Plan was adopted or projects that are currently pending, which are identified in the cumulative analysis below (see Table 3.8-6 on page 3.8-15).

The General Plan also includes goals and policies related to housing. These are based on growth trends and population projections, as described above. The Land Use & Urban Design Element contains policies aimed at providing adequate housing and maintaining a job-housing balance in San Bruno. The Housing Element includes a housing needs assessment that identifies current and projected housing needs as well as policies to accommodate housing development that will be affordable to a range of household types and income levels. The Housing Element contains goals, policies, and programs to guide future residential development as well as preserve and enhance existing residential areas in San Bruno. The Project's consistency with applicable General Plan policies is evaluated in Section 3.6, *Land Use*, of this ~~Draft~~ EIR.

City of San Bruno General Plan

The City of Bruno General Plan, adopted in 2009, includes goals and policies related to population and housing (City of San Bruno 2009). Housing Element goals and policies include supporting identified housing opportunities, increasing the supply of housing for large families, ensuring the continued availability of affordable housing, and promoting fair housing. The Land Use & Urban Design Element also includes policies applicable to housing, including policies that promote infill and revitalization, coordinate planning and development with surrounding cities and agencies, and ensure that new development is sensitive to existing uses.

3.8.1.2 Environmental Setting

This section provides a discussion of the existing conditions related to population and housing at the Project Site, including the Phase I Site.

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[2] Not including jobs associated with construction and transportation.

Regional Setting

Population

According to recent California Department of Finance data, the city of San Bruno has a population of 44,859 (as of January 1, 2019), while San Mateo County has a population of 765,077 (California Department of Finance 2019). In addition, the city of San Bruno has an average household size of 2.89 persons per household, similar to the 2.87 persons per household average for San Mateo County (California Department of Finance 2019). As shown in Table 3.8-2, according to ABAG's *Projections 2040*, San Bruno's population will increase by approximately 9,915, from 41,455 in 2020 to 51,370 in 2040, while San Mateo County's population will increase by approximately 117,250, from 786,875 in 2020 to 904,125 in 2040 (ABAG 2019). The Bay Area population is also expected to grow, increasing by approximately 1,692,840 (ABAG 2019).[3]

Table 3.8-2. City of San Bruno and Bay Area Population and Household Projections, 2020–2040

	2020	2030	2040	Growth, 2020–2040
Population[a]				
City of San Bruno	41,455	43,835	51,370	9,915 (24%)
San Mateo County	786,875	842,060	904,125	117,250 (15%)
Bay Area	7,758,535	8,509,245	9,451,375	1,692,840 (22%)
Households				
City of San Bruno	14,890	15,570	17,935	3,045 (20%)
San Mateo County	284,260	302,520	317,965	33,705 (12%)
Bay Area	2,881,965	3,142,020	3,426,705	544,740 (19%)

[a] Does not include the population in group quarters. The U.S. Census Bureau classifies all people not living in housing units (i.e., houses, apartments, mobile homes, rented rooms) as living in group quarters. Institutional group quarters include correctional facilities, nursing homes, and mental hospitals. Non-institutional group quarters include college dormitories, military barracks, group homes, missions, and shelters.

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May.

Housing

According to recent California Department of Finance data, the city of San Bruno has 16,075 total housing units and a 3.6 percent vacancy rate (as of January 1, 2019) (California Department of Finance 2019). Approximately 43 percent (9,051) of the units are single detached units, approximately 5 percent (877) are structure of two to four units, and approximately 34 percent (5,536) are in structures with five or more units (California Department of Finance 2019). For 2019, sources have reported a San Bruno median home value of $1,083,000 (Zillow. 2019) or higher. As shown above in Table 3.8-2, according to ABAG's *Projections 2040*, the number of households is expected to increase by 3,045, from 14,890 in 2020 to 17,935 in 2040, while San Mateo County's households will increase by approximately 33,705, from

[3] As discussed above under *Sustainable Communities Strategy and SB 375*, ABAG's *Projections 2040* is a series of statistical compendia on demographic, economic, and land use changes in the coming decades. These forecasts are created to help local governments anticipate and prepare for changes and are not based on actual counts. California Department of Finance population estimates are based on current counts from a variety of sources, including drivers' licenses, birth and death certificates, public school enrollment numbers, and other sources. For these reasons, differences may appear between the population numbers for the two data sets.

284,260 in 2020 to 317,965 in 2040. Households in the Bay Area are expected to increase by 544,740 by 2040.

Employment

As shown in Table 3.8-3, according to ABAG's *Projections 2040*, jobs in San Bruno are projected to increase by 1,940 between 2020 and 2040. The total number of jobs in San Mateo County is projected to increase by 37,520 between 2020 and 2040. A jobs-to-employed-residents ratio is used to evaluate the match between jobs and residents in a community. When the jobs-to-employed-residents ratio is greater than 1.0, it indicates that the community is providing more jobs than it has residents to fill them; a jobs-to-employed-residents ratio of less than 1.0 indicates that a community has fewer jobs than employable residents. ABAG predicts that the city of San Bruno will maintain a jobs-to-employed-residents ratio of 0.6 from 2020 to 2040, while San Mateo County is projected to maintain a jobs-to-employed-residents ratio of 1.0 over the same period.

Project Site

There are no existing housing units on the Project Site.

Phase I Site

There are no existing housing units on the Phase I Site.

Table 3.8-3. City of San Bruno and Bay Area Employment Projections, 2020–2040

	2020	2030	2040
San Bruno			
Population	41,455	43,835	51,370
Jobs	14,645	14,905	14,780
Employed Residents	22,310	22,640	25,335
Jobs-to-Employed-Residents Ratio	0.7	0.7	0.6
San Mateo County			
Population	786,875	842,060	904,125
Jobs	399,275	423,005	472,045
Employed Residents	415,275	433,655	446,040
Jobs-to-Employed-Residents Ratio	1.0	1.0	1.1
Bay Area			
Population	7,758,535	8,509,245	9,451,375
Jobs	4,136,195	4,405,120	4,698,375
Employed Residents	4,147,005	4,397,865	4,663,895
Jobs-to-Employed-Residents Ratio	1.0	1.0	1.0

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May.

3.8.2 Environmental Impacts

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

3.8.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below.

- Creation of substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).
- Displacement of a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere.

3.8.2.2 Methodology and Approach

This analysis considers whether substantial population and household growth would occur with implementation of the Project and whether this growth is within forecasts for the city and/or can be considered substantial with respect to remaining growth potential in the city. This section uses ABAG's projections to analyze the Project's impacts.

Substantial population growth is considered an increase in population that is unplanned, without consideration of, or planning for, infrastructure services and housing to support new residents, employees, and visitors. In general, a project that induces population growth is not viewed as having a significant impact on the environment unless the physical changes that would be needed to accommodate project-related population growth would have adverse impacts on the environment. Project-related residential growth would result in direct physical environmental changes. These changes are analyzed and disclosed in the various environmental topic sections in this EIR.

An indirect environmental impact is a change to the physical environment that is not immediately related to a proposed project. Specifically, indirect project-related population growth includes the ways in which a proposed project could foster economic or population growth in other locations or induce the construction of additional housing. Projects that would remove obstacles to population growth (e.g., a major expansion of a wastewater treatment plant or an extension of roadways into a previously unserved area) might, for example, allow for development to occur in an area that was not previously considered feasible for development because of infrastructure limitations. This type of development pattern typically occurs in suburban or rural areas adjacent to undeveloped land and is not generally applicable to a site that is in a developed urban environment and already served by infrastructure.

Buildout Scenario

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multifamily residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the farthest range allowable under the Specific Plan, resulting in 573 multifamily residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed. Each section within Chapter 3, *Environmental Impact Analysis*, of this EIR analyzes the buildout scenario that represents the "worst-case" scenario for the resource area being analyzed. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts.

A project can introduce population and housing growth both directly (i.e., through the construction of new housing) and indirectly (i.e., through employee-generated demand). Only the Maximum Housing Scenario would generate direct population and housing growth, but both scenarios would have the potential to generate indirect population and housing growth by introducing new employees to the city. That is, the employees generated by the Project could wish to relocate to the city of San Bruno to live closer to their workplaces. Table 3.8-4 and Table 3.8-5 compare the projected increase in employees, residents, and households from each development scenario.

Table 3.8-4. Direct and Indirect Employee, Resident, and Housing Generation—Maximum Office Scenario

Land Use	Square Footage (sf)/Units/ Employees	Generation Rate	Projected Employees/ Residents/ Households[h]
Employees			
Office (net new)	2,459,847 sf	250 sf/employee[a]	9,840 employees
Total New Employees	**—**	**—**	**9,840 employees**
Residents			
Onsite residents (direct)	0	2.89 persons/household[b]	0 residents
Employee-generated residents in San Bruno (indirect)	9,840 employees	13.6%[c,d,e] 1.88 persons/employee[f]	1,338 employees/ 2,510 residents
Employee-generated residents outside San Bruno (indirect)	9,840 employees	86.4%[c] 1.88 persons/employee[f]	8,502 employees/ 15,947 residents
Total New Residents	**—**	**—**	**18,457 residents**
Households			
Onsite households (direct)	0	—	0 households
Employee-generated households in San Bruno (indirect)	2,510 residents	2.89 persons/household[b]	869 households
Employee-generated households outside San Bruno (indirect)	15,947 residents	2.80 persons/household[g]	5,695 households
Total New Households	**—**	**—**	**6,564 households**

Land Use	Square Footage (sf)/Units/ Employees	Generation Rate	Projected Employees/ Residents/ Households[h]

Note: Sums may not total because of rounding.

[a] YouTube Development – Phase I Submittal to City of San Bruno, Community Development Department. January 3, 2019.

[b] California Department of Finance. 2019. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019*. Sacramento, CA. May. Available: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/. Accessed: June 6, 2019.

[c] The 3,204 San Bruno residents who work at place of residence/23,606 jobs in San Bruno = 13.6 percent of San Bruno residents who also work in the city. Assumption for outside San Bruno is the remainder.

[d] The 3,204 who work at place of residence. U.S. Census Bureau. 2017. *American Fact Finder, American Community Survey (ACS).* Sex of Workers by Place of Work—Place Level, San Bruno City, California, 2013–2017 ACS 5-Year Estimates, ID B08008. Available: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t. Accessed: March 13, 2019.

[e] The economy of San Bruno employs 23,606 people. DataUSA. 2019. *San Bruno, California.* Economy. Available: https://datausa.io/profile/geo/san-bruno-ca/#economy. Accessed: March 13, 2019.

[f] The 7,758,535 residents/4,136,195 jobs = 1.88. Refer to Table 3.8-4.

[g] California Department of Finance. 2019. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019.* Sacramento, CA. May. Based on 2019 Bay Area population not in group homes divided by occupied housing units.

[h] Due to rounding, numbers presented in this column may not add up precisely.

Table 3.8-5. Direct and Indirect Employee, Resident, and Housing Generation—Maximum Housing Scenario

Land Use	Square Footage (sf)/Units/ Employees	Generation Rate	Projected Employees/ Residents/ Households[h]
Employees			
Office (net new)	1,942,896 sf	250 sf/employee[a]	7,772 employees
Total New Employees	—	—	**7,772 employees**
Residents			
Onsite residents (direct)	573 units	2.89 persons/ household[b]	1,656 residents
Employee-generated residents in San Bruno (indirect)	7,772 employees	13.6% [c,d,e] 1.88 persons/employee[f]	1,057 employees/ 1,983 residents
Employee-generated residents outside San Bruno (indirect)	7,772 employees	86.4%[c] 1.88 persons/employee[f]	6,715 employees/ 12,596 residents
Total New Residents	—	—	**14,579 residents (1,656 assumed absorbed by onsite housing)**

Land Use	Square Footage (sf)/Units/ Employees	Generation Rate	Projected Employees/ Residents/ Households[h]
Households			
Onsite households (direct)	573 households	—	573 households
Employee-generated households in San Bruno (indirect)	1,983 residents	2.89 persons/household[b]	686 households
Employee-generated households outside San Bruno (indirect)	12,596 residents	2.80 persons/household[g]	4,499 households
Total New Households	**—**	**—**	**5,185 households (573 units of housing demand met onsite)**

Note: Sums may not total because of rounding.

[a] YouTube Development – Phase I Submittal to City of San Bruno, Community Development Department. January 3, 2019.

[b] California Department of Finance. 2019. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019*. Sacramento, CA. May. Available: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/. Accessed: June 6, 2019.

[c] The 3,204 San Bruno residents who worked at place of residence/23,606 jobs in San Bruno = 13.6 percent of San Bruno residents who also work in the city. Assumption for outside San Bruno is the remainder.

[d] The 3,204 who work at place of residence. U.S. Census Bureau. 2017. *American Fact Finder, American Community Survey (ACS).* Sex of Workers by Place of Work—Place Level, San Bruno City, California, 2013–2017 ACS 5-Year Estimates, ID B08008. Available: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t. Accessed: March 13, 2019.

[e] The economy of San Bruno employs 23,606 people. DataUSA. 2019. *San Bruno, California*. Economy. Available: https://datausa.io/profile/geo/san-bruno-ca/#economy. Accessed: March 13, 2019.

[f] The 7,758,535 residents/4,136,195 jobs = 1.88. Refer to Table 3.8-4.

[g] California Department of Finance. 2019. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019. Sacramento*, CA, May 2019. Based on 2019 Bay Area population not in group homes divided by occupied housing units.

[h] Due to rounding, numbers presented in this column may not add up precisely.

As shown in Table 3.8-4, the Maximum Office Scenario is anticipated to generate 9,840 employees through the construction of new office space and 0 onsite residents. Of the employees who currently work in San Bruno, 13.6 percent also live in the city. Applying this ratio, the Maximum Office Scenario would result in 1,338 new Project employees residing in the city of San Bruno (13.6 percent of 9,840 employees). Based on the Bay Area average of 1.88 residents per employee, the Maximum Office Scenario would result in 2,510 new residents in San Bruno. Based on the San Bruno average household size of 2.89 persons per household,[4] these new residents could generate the need for an additional 869 new units of housing in the city of San Bruno (as a worst-case scenario, based on assuming that none of the new jobs are filled by an existing San Bruno resident and that none of the new employees occupy currently vacant housing units). The remaining 8,502 employees who are presumed to reside outside of San Bruno would generate population growth totaling 15,947 persons (based on the Bay Area average of 1.88 residents per employee) and a corresponding need for an additional 5,695 new units of housing outside of San Bruno (based on the Bay

[4] If the project generates new households, it generates 2.89 residents/household; if it generates employees, it generates 1.88 residents/employee (including the employee). The reason these are different is that households often have multiple employees, so on average every new employee does not generate a new “full” household.

Area 2019 average household size of 2.80) (as a worst-case scenario, based on assuming that none of the new jobs are filled by an existing regional resident and that none of the new employees occupy currently vacant housing units).

As shown in Table 3.8-5, the Maximum Housing Scenario is anticipated to generate 7,772 employees through the construction of new office space and up to 1,656 onsite residents in the 573 new housing units. Of the employees who work in San Bruno, 13.6 percent (1,057 employees) are presumed to also live in the city. Based on the Bay Area average of 1.88 residents per employee, the Maximum Housing Scenario would generate 1,983 additional residents in the city. Much of this housing demand is expected to be accommodated by the Project's new housing units; as such, this analysis does not assume the population growth due to the new housing units is in addition to the population growth due to new employees. Based on the San Bruno average household size of 2.89 persons per household, the employee-generated residents would create the need for a total of 686 total new units of housing in the city of San Bruno – meaning 113 units in addition to the 573 built by the Project. The remaining 6,715 employees who are presumed to reside outside of San Bruno would generate population growth totaling 12,596 persons (based on the Bay Area average of 1.88 residents per employee) and a corresponding need for an additional 4,499 new units of housing outside of San Bruno (based on the Bay Area 2019 average household size of 2.80).

Based on the above, for the analysis of potential impacts on population and housing, the Maximum Office Scenario is analyzed because it would generate the greatest number of new residents and housing units inside and outside the city when factoring in both direct and indirect population and housing growth and would generate the greatest number of employees.

3.8.2.3 Impacts Not Evaluated in Detail

Displacement of Housing (Project, including Phase I Development). There is no housing on the Project Site; therefore, implementation of the Project would not displace existing housing units or people, and no replacement housing would be needed. The Project would result in ***no impact*** related to the displacement of housing; therefore, this impact is not evaluated further.

3.8.2.4 Impacts and Mitigation Measures

Impact PH-1a. The Project would not result in substantial unplanned population growth, either directly or indirectly (Project: Less than Significant).

Impact PH-1b. The Phase I Development would not result in substantial unplanned population growth, either directly or indirectly (Phase I Development: Less than Significant).

The Project would result in a significant impact related to population and housing growth if it would lead to substantial unplanned growth, either directly or indirectly. As discussed under *Buildout Scenario,* above, the Maximum Office Scenario is used for analysis in the city of San Bruno because it would generate the greatest number of new residents and housing units inside and outside the city when factoring in both direct and indirect population and housing growth.

This impact analyzes the Project's impact relative to planned population growth on its own. The Project's contribution to potential cumulative impacts related to population growth is assessed separately in Section 3.8.3, below.

Project

Construction

As discussed in Chapter 2, *Project Description*, Project construction is anticipated to occur over approximately 20 years, although the exact schedule would be dictated by market conditions at the time of construction. The number of construction workers on the Project Site would vary, ranging from approximately 40 to 550 on any given day, according to the stage of construction and whether or not construction phases are undertaken concurrently. It is anticipated that construction employees associated with the Project who are not already living in the city would commute from their residences elsewhere in the Bay Area rather than permanently relocate to San Bruno, as is typical for employees in various construction trades. Once the construction phases are complete, construction workers typically seek employment at other job sites in the region that require their particular skills. Thus, construction of the Project would not generate substantial unplanned population growth in the city or region. Construction-related population and housing impacts associated with the Project would be ***less than significant***.

Operation

Population growth is considered in the context of local and regional plans as well as population, housing, and employment projections. As discussed in Section 3.8.2 on page 3.8-6, this analysis compares the residential population generated under the Maximum Office Scenario to existing conditions as well as projected population growth citywide and regionally.

Direct Population and Housing Growth

The Project would be located on an existing commercial site in an urbanized area. Implementation of the Project under the Maximum Office Scenario would not add any population or housing directly.[5]

Indirect Employee-Generated Population and Housing Growth

City of San Bruno Population and Housing. The Project, under the Maximum Office Scenario, would construct approximately 2,459,847 square feet of net new office space. As shown in Table 3.8-5, based on the 13.6 percent indirect employee generation rate discussed above, the Maximum Office Scenario's employment is expected to generate 1,338 employees residing in the city of San Bruno. As such, the Project's employment under the Maximum Office Scenario would generate 2,510 residents in the city of San Bruno. According to ABAG's *Projections 2040*, San Bruno's population would increase by approximately 9,915, from 41,455 in 2020 to 51,370 in 2040 (ABAG 2019). Therefore, the addition of 2,510 new residents in San Bruno resulting from employment under the Maximum Office Scenario would account for approximately 25 percent of the population growth expected in the city from 2020 to 2040.

With regard to housing, as shown in Table 3.8-4, when accounting for the additional housing demand within the city of San Bruno that could be generated by Project employees under the Maximum Office Scenario, a total of 869 new housing units could be added in the city. According to ABAG's *Projections 2040*, San Bruno's housing supply will increase by approximately 3,045, from 14,890 in 2020 to 17,935 in 2040. Conservatively assuming that the housing demand generated by Project employees would be served by new offsite housing rather than existing vacant housing elsewhere, the addition of 869 new housing units in the city of San Bruno

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[5] Note that the Project under the Maximum Housing Scenario would result in less population growth than the Maximum Office Scenario; therefore, the EIR's analysis of the Maximum Office Scenario covers the population growth associated with the Maximum Housing Scenario.

resulting from employment under the Maximum Office Scenario would account for approximately 29 percent of the housing growth expected in the city between 2020 and 2040.

Based on ABAG projections for population and housing in San Bruno, growth with the Project would be within the range of anticipated growth for the city.

Bay Area Population and Housing. The Project under the Maximum Office Scenario would construct approximately 2,459,847 square feet of net new office space. As shown in Table 3.8-4, the Maximum Office Scenario's employment is expected to generate 18,457 residents in the Bay Area. San Mateo County's population will increase by approximately 117,250, from 786,875 in 2020 to 842,060 in 2040. The Bay Area population is also expected to grow, increasing by approximately 1,692,840. The addition of 18,457 new residents resulting from employment under the Maximum Office Scenario would account for approximately 15.7 percent of the population growth expected in the county and approximately 1.1 percent of the population growth expected in the Bay Area between 2020 and 2040. Based on ABAG projections for population, this is within the range of anticipated population growth for the county and Bay Area.

According to ABAG's *Projections 2040*, San Mateo County's housing supply will increase by approximately 33,705, from 284,260 in 2020 to 302,520 in 2040. The Bay Area housing supply is also expected to grow, increasing by approximately 544,740 (ABAG 2019). As shown in Table 3.8-4, the Maximum Office Scenario's population growth from employment is expected to generate a demand for 6,564 housing units in the Bay Area. The addition of 6,564 new housing units in the Bay Area resulting from employment under the Maximum Office Scenario would account for approximately 19.5 percent of the housing growth expected in the county and approximately 1.2 percent of the housing growth expected in the Bay Area between 2020 and 2040. Based on ABAG projections for housing, this is within the range of anticipated growth for the county and Bay Area.

Employment. As shown in Table 3.8-5, ABAG forecasts that the number of employees working in San Bruno will increase by 135, from 14,645 in 2020 to 14,780 in 2040. Employees in San Mateo County are projected to increase by 72,770. Upon full buildout, the Project would generate up to 9,840 employees under the Maximum Office Scenario, substantially exceeding ABAG's employment growth projection for the city and comprising approximately 14 percent of the expected employment growth in the county.

Employment impacts are largely social and economic impacts, and CEQA establishes that social and economic impacts are not considered significant impacts unless they contribute to, or are caused by, physical impacts on the environment (Public Resources Code Section 21080). Thus, the Project's exceedance of ABAG's employment growth projection for the city is not, in and of itself, a significant impact when considered at a project level (see consideration of cumulative impacts below in Section 3.8-3). As discussed above, Project employees would not directly create significant impacts related to population or housing demand. Other potential environmental impacts that could result from the new employees on the Project Site are evaluated throughout this ~~Draft~~ EIR. These include impacts related to vehicle travel (including attendant air and noise impacts) and increased demand for public services and utilities. Refer to Section 3.2, *Air Quality*; Section 3.4, *Greenhouse Gases*; Section 3.7, *Noise*; Section 3.9, *Public Services and Recreation*; Section 3.10, *Transportation*; and Section 3.11, *Utilities and Service Systems*. These sections evaluate whether activities associated with the Project's employees would cause significant impacts on the environment.

As noted above, the General Plan also includes population, housing, and employment projections for 2025. The General Plan's forecast does not currently extend to the Specific Plan's buildout year of 2040. It is assumed that when the General Plan is updated, future forecasts will be based on and thus consistent with

ABAG projections for the city of San Bruno. Thus, future updates to the General Plan will account for Project-related growth.

As discussed in Section 3.11, *Utilities and Service Systems,* infrastructure improvements required to serve the Project would include new and upgraded water, wastewater, and storm drain pipelines within the boundaries of the Project Site. The Project would result in infill development within an existing urban environment. The required infrastructure improvements would consist of localized improvements intended to serve Project-related demand. These improvements would not extend infrastructure into other unserved or underserved areas and, as such, would not indirectly generate population growth.

Based on the above, operation of the Project would not generate substantial unplanned population growth in the city or region. Operational population and housing impacts associated with the Project would be ***less than significant***. No mitigation measures are required.

Phase I Development

Construction

For the reasons discussed above in the context of the Project's impacts, construction of the Phase I Development would not generate substantial unplanned population growth in the city or region. Construction-related population and housing impacts associated with the Phase I Development would be ***less than significant***. No mitigation measures are required.

Operation

Direct Population and Housing Growth

The Phase I Development would not involve construction of housing units and thus would not directly add any residents or housing to the city.

Indirect Employee-Generated Population and Housing Growth

The Phase I Development would construct approximately 440,000 new square feet of office space and remove 138,524 square feet of existing office space, for an increase of 301,476 net new square feet of office space. Based on the average of one job per 250 square feet, the Phase I Development is expected to generate 1,206 net new employees. Based on the statistics discussed above, approximately 164 of the net new employees for the Phase I Development would reside in the city of San Bruno (13.6% of the total), and the remaining 1,042 of the net new employees would reside outside the city of San Bruno. Based on the Bay Area average of 1.88 residents per employee, the Phase I Development would result in 308 new residents in San Bruno and 1,959 new residents outside San Bruno, for a total of 2,267 new Bay Area residents. Anticipated completion of the Phase I Development would be in ~~2022~~ 2025.

According to ABAG's *Projections 2040*, San Bruno's population will increase by approximately 2,380, from 41,455 in 2020 to 43,835 in 2030 (the projection year closest to Phase I Development buildout), while San Mateo County's population will increase by approximately 55,185, from 786,875 in 2020 to 842,060 in 2030. The Bay Area population is also expected to grow, increasing by approximately 750,710 (ABAG 2019). The addition of 308 new residents in the city of San Bruno resulting from the Phase I Development employment would account for approximately 13 percent of the population growth expected in the city between 2020 and 2030. The addition of 2,267 new residents in the Bay Area would account for approximately 4.1 percent of the population growth expected in the county and approximately 0.3 percent of the population growth expected in the Bay Area between 2020 and 2030. Based on ABAG projections for population, this is within the range of anticipated growth for the city, county, and Bay Area.

According to ABAG's *Projections 2040*, San Bruno's housing supply will increase by approximately 680, from 14,890 in 2020 to 15,570 in 2030 (the projection year closest to Phase I Development buildout), and San Mateo County's housing will increase by approximately 18,260, from 284,260 in 2020 to 302,520 in 2030. The Bay Area housing supply is also expected to grow over this period, increasing by approximately 260,055 (ABAG 2019).

The Phase I Development would add 308 new residents within the city of San Bruno, which would result in additional demand for 107 housing units (using the 2.89 residents/unit factor from Table 3.8-4), which would account for 15.7 percent of the planned housing growth between 2020 and 2030. The Phase I Development would add 1,955 new residents outside the city of San Bruno, which would result in additional demand for 698 housing units (using the 2.80 persons/unit factor from Table 3.8-4). Combining the increased housing demand inside and outside the city of San Bruno, the Phase I Development would result in additional demand for 805 housing units, which would account for approximately 4.4 percent of the housing growth expected in the county and approximately 0.3 percent of the housing growth expected in the Bay Area between 2020 and 2030. Based on ABAG projections for housing, this is within the range of anticipated growth for the city, county, and Bay Area.

As shown in Table 3.8-3, ABAG forecasts that the number of employees working in San Bruno will increase by 260 between 2020 and 2030 (the projection year closest to Phase I Development buildout). Employees in San Mateo County are projected to increase by 23,730. The 1,206 net new employees generated by the Phase I Development would substantially exceed ABAG's employment growth projection for the city and comprise 5.1 percent of the expected employment growth in the county. For the reasons stated above in the project-level analysis, the Phase I Development's exceedance of ABAG's employment growth projection for the city is not, in and of itself, a significant impact under CEQA. As discussed above, Phase I Development employees would not indirectly create significant impacts related to population or housing demand. Refer to Section 3.2, *Air Quality*; Section 3.4, *Greenhouse Gases*; Section 3.7, *Noise*; Section 3.9, *Public Services and Recreation*; Section 3.10, *Transportation*; and Section 3.11, *Utilities and Service Systems*, of this ~~Draft~~ EIR for analyses of whether activities associated with Phase I Development employees would have significant impacts on the environment.

As noted above, the City of San Bruno General Plan forecasts that the city will grow by 4,156 residents, 1,572 housing units, and 7,125 jobs[6] between 2005 and 2025, not including existing development or development that was already under way in 2005. Buildout of the Phase I Development would occur in ~~2022~~ 2025. According to the City, development completed since adoption of the General Plan includes 5,000 square feet of restaurant space, 7,250 square feet of retail/commercial space, 67,586 square feet of professional office space, and 14 housing units. This does not include existing or pending development at the time the General Plan was adopted or projects that are currently pending, which are identified in the cumulative analysis below (see Table 3.8-6). Given the minimal amount of development that has occurred in the city since General Plan adoption, the addition of 1,206 net new employees and 308 new residents as well as the demand for 107 housing units in the city of San Bruno resulting from the Phase I Development would be within the General Plan's 2005–2025 population, housing, and employment growth projections.

[6] Not including jobs associated with construction and transportation.

Table 3.8-6. Projects Contributing to Foreseeable Development

Location	Type	Residential (dwelling units)	Retail (square feet)	Office (square feet)	Medical (square feet)	Hotel (rooms/ square feet)
Approved Projects and Projects under Construction						
Plaza Apartments 406 San Mateo Avenue	Mixed-Use	83 MF	6,975			
841 San Bruno Avenue	Medical Office				15,000	
Skyline College Residential Project 3300 College Drive	Residential	40 SF 30 MF				
111 San Bruno Avenue	Mixed-Use	62 MF	7,600			
500 Sylvan Avenue	Residential	9 MF				
APN - 020-012-160 (vacant parcel west of 901 Cherry Avenue)	Office			287,000		
Subtotal		***224 DU***	***14,575 sf***	***287,000 sf***	***15,000 sf***	
Proposed Projects						
271 El Camino Real	Residential	24 MF				
Mills Park Plaza 715 El Camino Real	Mixed-Use	425 MF	54,200			
160 El Camino Real	Hotel					34 rooms/ 18,314 sf
Glenview Terrace 2880 San Bruno Avenue	Residential	29 SF				
Subtotal		***478 DU***	***54,200 sf***			***34 rooms/ 18,314 sf***
Total		**702 DU (633 MF, 69 SF)**	**68,775 sf**	**287,000 sf**	**15,000 sf**	**34 rooms/ 18,314 sf**

DU = dwelling units SF = single family
MF = multifamily sf = square feet
Source: City of San Bruno, 2019.

For the reasons discussed above in the context of the Project's impacts, infrastructure improvements associated with the Phase I Development would not indirectly generate population growth.

Based on the above, operation of the Phase I Development would not generate substantial unplanned population growth in the city or region. Operational population and housing impacts associated with the Phase I Development would be ***less than significant***. No mitigation measures are required.

3.8.3 Cumulative Impacts

Impact C-PH-1. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in substantial unplanned population growth, either directly or indirectly, within the city San Bruno (Less than Significant). The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would result in unplanned population growth indirectly in the Bay Area and, potentially, outside the Bay Area, but conclusions about the significance of secondary environmental impacts would be speculative (Project, inclusive of Phase I Development: No Significant Impact Identified)

As previously discussed, Plan Bay Area 2040 is the current RTP and SCS, adopted by the MTC and ABAG in July 2017 in compliance with California's governing greenhouse gas reduction legislation, SB 375. Plan Bay Area calls for an increasing percentage of Bay Area growth to occur as infill development in areas with good transit access and the services necessary to accommodate daily living in proximity to housing and jobs. Because of the regional nature of population and housing effects, and because the General Plan's growth forecast does not extend to the Specific Plan's buildout year of 2040, Plan Bay Area projections for the city of San Bruno represent the context for the cumulative analyses. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

City of San Bruno. Chapter 3, *Environmental Impact Analysis*, identifies reasonably foreseeable projects in the city. These reasonably foreseeable projects include mixed-use residential, multifamily retail, residential multifamily, office, hotel, and shopping center improvements. Together, if all are approved and constructed, they would provide a projected 702 residential units and approximately 389,089 square feet of retail, medical, office, and hotel space. The projects contributing to these totals are shown in Table 3.8-6.

The combined residential units of the cumulative projects would generate approximately 2,029 new residents, based on a household size of 2.89 people per unit (702 x 2.89). The combined 389,089 square feet of non-residential development associated with the related projects would generate approximately 1,556 employees, applying the same employee generation rate as the Project (one employee per 250 square feet). This is considered a conservative rate for the related projects and most likely overestimates related project employment.[7] Presuming 13.6 percent of those employees live in San Bruno and generate 1.88 residents per employee, related project employment could generate an additional 398 residents within the city, for a total of 2,427 residents (2,029 + 398). When added to the 2,510 new city residents that could be introduced by the Maximum Office Scenario (the development scenario with the greatest potential impact on population and housing), cumulative population growth would total 4,937 persons in the city of San Bruno.

[7] For example, the General Plan assumes growth in non-residential development totaling 1,982,990 square feet and 7,125 additional jobs (not including construction and transportation jobs) by 2025, equating to a ratio of one employee per 278 square feet. Refer to General Plan Table 2-3.

With regard to housing, the cumulative projects would directly generate 702 housing units. Based on the San Bruno average household size of 2.89 persons per household, the 398 employee-generated residents could create the need for an additional 138 new units of housing in the city of San Bruno, for a total of 840 housing units (702 + 138). Similar to the Project analysis above, this conservatively assumes that employee-generated housing demand would not be satisfied onsite (for mixed-use projects) or by existing vacant housing units. When added to the 869 new housing units that could be introduced by employment associated with the Maximum Office Scenario within the city (refer to Table 3.8-4), cumulative housing growth in the city of San Bruno would total 1,709 households.

In addition to the cumulative projects identified in Table 3.8-6, which include related projects known at the time of this EIR, additional growth would be expected to occur within the city during the 20-year projection period considered in this analysis (2020–2040). To account for this additional growth, an annual background growth rate of 0.3 percent was applied to this cumulative analysis. This rate is based on development trends in the city over the past five years, represented by the projects shown as approved or under construction in Table 3.8-6. These projects total 224 housing units and 29,575 square feet of non-residential uses. According to the Department of Finance, in 2014 (five years prior to this EIR analysis), the city had a population of 43,861 persons, 15,723 housing units, and an average household size of 2.87 persons per household (California Department of Finance 2019). Thus, the additional 224 housing units that have been developed, and the associated population of 643 persons (assuming 2.87 persons per household), represent a housing growth rate of 1.4 percent and a population growth rate of 1.5 percent over five years, or an average annual growth rate of 0.3 percent for both housing and population.

As shown in Table 3.8-7, according to ABAG's *Projections 2040*, San Bruno's population will increase by approximately 9,915. Therefore, the addition of 7,771 new residents, resulting from the combination of the Project, the identified cumulative projects, and reasonably foreseeable background growth, would account for approximately 78.4 percent of the population growth projected for the city by 2040. These figures are within the range of anticipated population growth for the city, according to ABAG projections.

As also shown in Table 3.8-7, according to ABAG's *Projections 2040*, San Bruno's housing supply will increase by approximately 3,045. Therefore, the addition of 2,709 new housing units, resulting from the combination of the Project, the identified cumulative projects, and reasonably foreseeable background growth, would account for approximately 89.0 percent of the housing growth projected for the city by 2040. These figures are within the range of anticipated housing growth for the city, according to ABAG projections. Furthermore, the Project and the reasonably foreseeable projects in the city of San Bruno would be located on infill sites within an urbanized area and would not require new roads, infrastructure, or utilities that could enable additional development in areas and cause adverse physical impacts. Like the Project, all but one of the related projects are located within a PDA.

Table 3.8-7. Cumulative Population and Housing Growth Compared to Planned City Growth (Maximum Office Scenario)

Population	
City of San Bruno Planned Growth (2020–2040)	9,915
Project + Cumulative Projects	*4,937*
Additional Background Growth (0.3% annual)	*2,834*
Project + Cumulative Projects + Background Growth	***7,771***
Share of City of San Bruno Planned Growth (2020–2040)	78.4

Households	
City of San Bruno Planned Growth (2020–2040)	3,045
Project + Cumulative Projects	*1,709*
Additional Background Growth (0.3% annual)	*1,000*
Project + Cumulative Projects + Background Growth	***2,709***
Share of City of San Bruno Planned Growth (2020–2040)	89.0
Source: Association of Bay Area Governments. *Projections 2040*. May 2019.	

As discussed in Section 3.8.2, the Project, including the Phase I Development, would exceed ABAG's employment growth forecasts for the city of San Bruno. Cumulative projects and background growth would exacerbate this exceedance. For the reasons stated above in the project-level analysis, the exceedance of ABAG's employment growth projection for the city is not, in and of itself, a significant impact under CEQA. As discussed above, cumulative growth in the city of San Bruno would not indirectly create significant impacts related to population or housing demand. Refer to Section 3.2, *Air Quality*; Section 3.4, *Greenhouse Gases*; Section 3.7, *Noise*; Section 3.9, *Public Services and Recreation*; Section 3.10, *Transportation*; and Section 3.11, *Utilities and Service Systems*, of this ~~Draft~~ EIR for analyses of whether activities associated with cumulative employment growth would have significant impacts on the environment.

Bay Area. For the cumulative analysis within the Bay Area, cumulative growth was estimated by combining the Project growth inside and outside San Bruno with the estimated other cumulative growth in city of San Bruno (other than the Project, as shown above in Table 3.8-7) and with the estimated cumulative growth outside the city of San Bruno indicated in the ABAG's *Projections 2013*.

With the Project's Maximum Office Scenario, cumulative population growth would exceed the population growth planned for in the Bay Area by 13,803 persons by 2040, and the cumulative demand for housing would exceed the housing planned for in the Bay Area by 5,359 units by 2040.

Conclusion. Within the city of San Bruno, the increase in the number of residents under the Project, in combination with the reasonably foreseeable future projects and background growth, would be consistent with the population and housing growth projected within the city by regional forecasts and therefore would not constitute substantial unplanned population growth in the city. The Project and most of the cumulative projects in San Bruno would be located on infill sites and in proximity to many transit lines. The combination of the Project and the reasonably foreseeable projects within San Bruno would not require an extension or expansion of roads, utilities, or infrastructures that would result in changes to the environment and constitute a significant impact. Therefore, cumulative impacts related to population growth within San Bruno resulting from implementation of the Project, in combination with the reasonably foreseeable future projects, would be ***less than significant***. No mitigation measures are required.

In the Bay Area, there would be cumulatively more residents than planned and a greater demand for housing than planned. The Project's contribution to this growth is considerable because it would result in an increase in population growth (up to 18,457 new residents under the Maximum Office Scenario), as well as housing demand (up to 6,564 new units), outside the city of San Bruno that is not within current planning projections. There would be greater pressure on communities within the Bay Area to grow more than planned; that additional growth may result in secondary environmental impacts due to additional housing construction as well as the expansion of roads, utilities, infrastructure, and public services.

Current housing shortages relative to a mismatch between housing demand and housing supply are resulting in some Bay Area employees choosing to live in areas on the edge of or outside the Bay Area because of housing affordability issues. Meeting the Bay Area's cumulative housing demand in outlying areas can result in secondary environmental impacts similar to those associated with housing development in Bay Area cities but can also result in the conversion of agricultural land and open space, in addition to additional vehicle miles traveled, greenhouse gas emissions, and air pollution associated with long commutes into and out of the Bay Area and/or the need to construct additional transit or roadway improvements. Although the net regional cumulative population and housing increases indicated in Table 3.8-8 would be approximately no greater than 1 percent over planned population and housing levels, the secondary environmental impacts of additional housing development (and other associated improvements) would be likely to occur. However, it is difficult to identify the specific nature, extent, and significance of secondary physical impacts on the environment due to this additional population growth because it would require a regional determination of the precise location of additional growth in the myriad locations across the Bay Area and beyond. Such analysis should be conducted without speculation by the jurisdictions that are considering additional population and housing growth over time to address cumulative growth, including the indirect growth induced by the Project outside San Bruno. Existing policies in other local jurisdictions may be able to limit the severity of the secondary physical impacts of growth such that significant impacts would not occur; however, this cannot be known at this time without engaging in speculation. The evidence necessary to make a significance conclusion regarding the physical consequences of growth will be available only during environmental review of general plans, specific plans, and proposed projects in other jurisdictions for addressing cumulative growth over time.

Table 3.8-8. Cumulative Population and Housing Growth Compared to Regional Growth Forecasts (Maximum Office Scenario)

Population	
Bay Area Planned Growth (2020–2040)	1,692,840
Project in San Bruno	*2,510*
Cumulative Projects in San Bruno	*2,427*
Additional Background Growth in San Bruno (0.3% annual)	*2,834*
Project outside of San Bruno	*15,947*
Cumulative outside of San Bruno Other than Project	*1,682,925*
Cumulative Bay Area	***1,706,643***
Change compared to Bay Area Planned Growth (2020–2040)	+13,803 (+ 0.8%)
Household Demand	
Bay Area Planned Growth (2020–2040)	544,740
Project in San Bruno	*869*
Cumulative Projects in San Bruno	*840*
Additional Background Growth in San Bruno (0.3% annual)	*1,000*
Project outside of San Bruno	*5,695*
Cumulative outside of San Bruno Other than Project	*541,695*
Cumulative Bay Area	***550,099***
Change compared to Bay Area Planned Growth (2020–2040)	+5,359 (+ 1.0%)

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May.

CEQA requires significance determinations to be made on the basis of substantial evidence, not speculation. As such, although a conclusion can be made that the Project would result in unplanned population and housing growth outside the city of San Bruno, a significance determination concerning the specific secondary physical impacts on the environment due to unplanned growth outside of San Bruno is not possible; thus, no considerable contribution to cumulative significant impacts is identified. Furthermore, addressing the impacts of additional population growth and housing demand outside the city is not within the jurisdiction of the City of San Bruno or within the control of the Phase I Development applicant. Even if a significant impact related to the Project's contribution to growth could be identified without speculation, the City of San Bruno and the Phase I Development applicant have no ability to implement mitigation outside of the city of San Bruno and the Project Site, respectively; thus, no feasible mitigation has been identified, short of dramatically reducing the size of the Project or substantially changing the Project to have a greater balance of employment and housing growth, which would be inconsistent with the Project's purpose and objectives.

3.8.4 References Cited

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Association of Bay Area Governments. 2019. *Projections 2040 by Jurisdiction*. Available: https://data.bayareametro.gov/Demography/Projections-2040-by-Jurisdiction/grqz-amra. Accessed: July 27, 2019.

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Zillow. 2019. *San Bruno Home Prices & Values*. Available: https://www.zillow.com/san-bruno-ca/home-values/. Accessed: September 9, 2019.

3.9 Public Services and Recreation

This section describes the environmental and regulatory setting for public services and recreation in the city of San Bruno as it pertains to the Bayhill Specific Plan and Phase I Development (Project). It also describes the public services and recreation impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ EIR, the Project comprises the Bayhill Specific Plan (Specific Plan) and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described.

Fire protection and emergency medical services, police protection services, schools, libraries, and parks and recreation are each addressed in a separate discussion in this section. A summary of the relevant regulatory setting and existing conditions is followed by a discussion of specific and cumulative impacts of the Project.

No questions or concerns related to public services and recreation were raised in the Notice of Preparation (NOP) or revised NOP comments.

3.9.1 Existing Conditions

3.9.1.1 Fire Protection Services

This section describes existing conditions related to fire protection services regulations, resources, and response times in San Bruno.

Regulatory Setting

Federal Regulations

Uniform Fire Code

The National Fire Protection Association publishes the Uniform Fire Code, which provides standards for fire protection. The nationally recognized standards require that fire departments "have the capability to deploy an initial full alarm assignment within an eight-minute response time to 90 percent of the incidents."

State Regulations

California Fire Code

The California Fire Code incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official Fire Code for the State and all political subdivisions. It is located in Part 9 of Title 24 of the California Code of Regulations. The California Fire Code is revised and published every three years by the California Building Standards Commission; the currently operable code is the 2016 California Fire Code. Similar to the California Building Code, the

California Fire Code is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions.

Local Regulations

City of San Bruno

The *San Bruno General Plan 2025* (General Plan) outlines various goals, policies, and implementing programs relevant to fire protection services in the Land Use and Urban Design, Health and Safety, and Public Facilities and Services Elements. Policies relevant to the Project address the adequate provision of public safety staffing, facilities, and building features such as fire flow and sprinklers. The Project's consistency with applicable General Plan policies is evaluated in Section 3.6, *Land Use*, of this ~~Draft~~ EIR.

San Bruno Municipal Code

The City of San Bruno Municipal Code contains all ordinances applicable to the city. The following provisions in the City of San Bruno Municipal Code apply to fire protection services:

- **Title 10 Municipal Services, Chapter 10.15 Cross-Connection and Backflow Standards, Section 10.15.050 Appropriate backflow protection.** This ordinance requires all facilities with fire suppression systems to meet certain technical specifications, including having an approved backflow prevention assembly with a double check valve. The ordinance also requires fire protection systems to be constructed with approved potable water piping and material.
- **Title 11 Buildings, Construction, and Fire Protection, Chapter 11.24 International Fire Code, Section 11.24.010 Adoption of text of the 2016 California Fire Code and the 2015 International Fire Code.** This ordinance adopts the 2016 California Fire Code and 2016 International Fire Code as the city's regulations governing conditions hazardous to life and property from fire or explosion.

Environmental Setting

This section provides a discussion of the existing conditions related to fire protection services at the Project Site, inclusive of the Phase I Site.

City of San Bruno Fire Department

The San Bruno Fire Department (Fire Department) provides fire suppression and emergency medical service in the city, including the Project Site.

Staffing and Facilities

The Fire Department includes 35 sworn officers and one non-sworn employee (San Bruno Fire Department pers. comm.). All full-time fire fighters are certified in the use of defibrillators and are trained Emergency Medical Technicians (EMTs). Fire Department administration consists of a Fire Chief, a Fire Marshal, and three shift Battalion Chiefs. All Fire Department firefighters are trained at the First Responder Operator level.

According to recent California Department of Finance data, the City of San Bruno has a population of 44,859 (as of January 1, 2019) (State of California 2019b). The Association of Bay Area Governments (ABAG) estimates that San Bruno will have 14,645 employees in 2020 (ABAG 2019). The Fire Department considers a project's service population to include the total residential population and half of the total employment population (San Bruno Fire Department pers. comm.). Thus, the Fire Department's existing service population is estimated to be 52,182 persons (44,859 residents + 7,323 employees), or approximately 1,491 persons per firefighter (based on 35 sworn officers). The Fire Department does not maintain a standard personnel-to-service-population metric for staffing (San Bruno Fire Department pers. comm.).

The Fire Department operates two fire stations. Both stations are over 50 years old and need to be updated to meet current departmental needs; however, the Department's equipment and apparatuses are considered adequate at this time (San Bruno Fire Department pers. comm.). Full replacement of both stations, and replacement of vehicles are identified in the City's Development Impact Fee (DIF) Nexus Study, which was prepared on February 20, 2019 (see discussion below) (EPS 2019). Station No. 51 is located on the south side of the City Hall complex at 555 El Camino Real, approximately 0.35 mile south of the Project Site. Station No. 51 has the primary responsibility for the area east of Interstate 280, including the Project Site. Station No. 52 is located near the intersection of Sneath Lane and Earl Avenue at 1999 Earl Avenue, approximately one mile west of the Project Site. Station No. 52 responds to emergency calls west of I-280 and therefore would not be directly responsible for the Project Site (San Bruno General Plan n.d.). However, the fire department is also part of a Joint Powers Authority (JPA) between the 20 incorporated cities in San Mateo County along with the County itself. The JPA requires that the closest available paramedic engine company respond to calls for emergency medical service, and the closest available engine and truck company respond to fire calls. In addition, a full assignment response such as a fire, fire alarm, or other type of call, which would necessitate a large response, requires three engines; therefore an additional engine would need to come from a neighboring jurisdiction in an event requiring a full assignment response. Each station is equipped with a 1,500 gallons-per-minute pumper (fire engine). For hazmat responses, the nearest hazmat unit within the JPA is located in Station 14 at 911 Granada Street in the City of Belmont.

Response Times and Performance

Fire departments respond to a variety of life-threatening and non-life-threatening calls, including emergency calls for service and other fire-related calls. As part of the JPA, the Fire Department is expected to maintain a response time of six minutes and 59 seconds for priority medical calls. For EMS non-emergency calls, the response time requirement is 14 minutes and 59 seconds (San Bruno Fire Department pers. comm.). In 2016, the Fire Department had an average response time of four minutes and 41 seconds, surpassing the JPA standard (Neubaumer pers. comm.). The fire department is considered a "busy" department, and Station 51, which would serve the Project Site, ranks as forth of the five most active stations within San Mateo County (San Bruno Fire Department pers. comm.).

In addition to response times, the fire department tracks other performance and workload measures, including emergency calls and medical responses. Table 3.9-1 provides actual and forecasted numbers of emergency calls and medical responses for the past four fiscal years based on the most recent data available.

Table 3.9-1. San Bruno Fire Department Performance and Workload Measures

Performance and Workload Measures	2016-17 Actual	2017-18 Actual	2018-19 Estimated	2019-20 Target
Emergency calls for service	4,300	4,294	4,500	4,700
Medical responses	2,580	2,696	2,800	3,100
Structure and other fire related responses	146	153	160	180

Source: City of San Bruno, Adopted 2019-20 Operating and Capital Budget. Years shown represent fiscal years.

Budget and Funding

On May 1, 2019, the City's comprehensive DIF Ordinance, adopted by the City Council on February 26, 2019, went into effect (City of San Bruno 2019a). The Ordinance requires all residential and commercial developers to pay a one-time impact fee charged at the issuance of building permits for new construction in the City. This fee is collected and used to improve and expand public capital facilities and infrastructure throughout the City needed to serve new residential and commercial growth. The Master Fee Schedule, July 2019 assigns an impact fee of $21,838 per multi-family residential unit, $4,410 per new hotel room, and $18.79 per square foot for new office space in order to generate funds for capital facilities and infrastructure improvements (City of San Bruno 2019b). A portion of the DIF, depending on whether the new construction is nonresidential or residential, would be used for public safety, including police and fire capital facilities and infrastructure, including equipment (e.g., vehicles). The DIF is not a source of funding for personnel needs.

3.9.1.2 Police Protection Services

This section describes existing conditions related to regulations, resources, and response times for police protection services in San Bruno.

Regulatory Setting

Local Regulations

City of San Bruno

The General Plan outlines various goals, policies, and implementing programs relevant to police protection services. The policies relevant to the Project address the need to mitigate the impacts of new development on public services. The Project's consistency with applicable General Plan policies is evaluated in Section 3.6, *Land Use*, of this ~~Draft~~ EIR.

Environmental Setting

This section provides a discussion of the existing conditions related to police protection services at the Project Site, inclusive of the Phase I Site.

City of San Bruno Police Department

The San Bruno Police Department (police department) provides police protection service to the City of San Bruno, including the Project Site.

Staffing and Facilities

The Project Site would be served by the San Bruno Police Station located at 1177 Huntington Avenue, approximately 0.4 mile northeast of the Project Site. As shown in Table 3.9-2, the police department includes a total of 95 personnel who provide various law enforcement services within the city (San Bruno Police Department 2019). The police department provides law enforcement services twenty-four hours a day, seven days a week. Police department services include highly visible patrols, systematic gathering and documentation of intelligence information, and the enforcement of laws and regulations throughout the city. In addition, the police department belongs to a mutual aid agreement with neighboring jurisdictions and partner agencies.

Table 3.9-2. San Bruno Police Department Personnel

Employee Type		Number
Paid Sworn Peace Officers		49
Management Analyst		1
Records/Dispatch Supervisor		1
Police Dispatchers		7
Police Clerks		5
Community Service Officers (full-time)		4
Community Service Officers (part-time)		3
Police Dispatchers (per-diem)		8
Police Explorers (volunteer)		13
Reserve Police Officers(volunteer)		4
	Total	**95**

Source: Personal Communication with San Bruno Police Department, May 1, 2019

The San Bruno Police Department serves a population of 45,295 and a daytime population of 51,818, resulting in an officer per population ratio of 9.5 per 10,000 individuals during the peak daytime hours (San Bruno Police Department 2019). The national average of police officers to peak population is 16.6 officers for every 10,000 people (Governing 2019). The San Bruno Police Department ratio goal is to meet this national average.

Response Times and Performance

The police department does not have a standard for the ratio of officers relative to the population; rather, it bases its staffing levels on the number of service calls and crime incidents. As shown in Table 3.9-3 below, the police department's annual crime statistics show a decrease in homicides, robbery, larceny, and burglary, while also showing an increase in rape, aggravated assault, simple-assault, vehicle theft, and arson.

Table 3.9-3. San Bruno Police Department Crime Statistics

Crime	2016	2017	2018
Homicide	0	2	1
Rape	16	14	18
Robbery	47	51	38
Assault-Aggravated	47	56	63
Assault-Simple	172	174	190
Burglary	140	124	117
Larceny	846	908	780
Stolen Vehicle	108	87	93
Arson	1	4	19

Source: Personal Communication with San Bruno Police Department, May 1, 2019

The police department's response time standard is five minutes or less for high priority calls. As shown in Table 3.9-4 below, the police department has continued to maintain this standard response time as the number of calls has increased.

Table 3.9-4. San Bruno Police Department Response Times and Service Calls

	2016	2017	2018
Average Response time	4:08	3:59	4:28
Number of Calls for Service	39,363	44,080	44,052

Source: Personal Communication with San Bruno Police Department, May 1, 2019

Budget and Funding

As stated above, the City adopted a comprehensive DIF Ordinance to require private developer fee contributions to the costs of providing public capital facilities and infrastructure (City of San Bruno 2019a). The Master Fee Schedule, July 2019 assigns an impact fee of $21,838 per multi-family residential unit, $4,410 per new hotel room, and $18.79 per square foot for office space in order to generate funds for infrastructure and facility improvements (City of San Bruno 2019b). A portion of the DIF, depending on whether the new construction is nonresidential or residential, would be used for public safety, including police and fire capital facilities and infrastructure. The DIF is not a source of funding for personnel needs.

BART Police Department

The BART Police Department (Department) provides law enforcement services in areas designated as BART jurisdiction. The Department is a signatory to the area's mutual-aid pacts and has teams of highly trained officers who can respond to critical incidents and major emergencies. This community-based deployment strategy enhances the Department's ability to work closely with local residents, allied public-safety agencies, businesses, schools, and other transit district employees. The Department is comprised of 296 personnel, of which 206 are sworn peace officers (Bay Area Rapid Transit 2017).

The Department has adopted a Zone Geographical Policing Structure, dividing the Department's service area into five Zones according to the unique character and needs of each. Each Zone is further subdivided into two or more Police Service Areas (PSAs). The Project Site is within Zone 5. There are two PSAs within Zone 5: PSA 1, covering Glen Park, Balboa Park, Daly City, Colma, and South San Francisco; and PSA 2, covering San Bruno, the San Francisco Airport, and Millbrae (Bay Area Rapid Transit 2019). The Project Site is within Zone 5/ PSA 2. Two sworn officers are charged with the entirety of Zone 5, including PSA 2. There is one additional sworn officer within PSA 2 who is permanently stationed at the San Francisco Airport due to Federal Aviation Administration (FAA) regulations. One sergeant oversees the three officers and is available to lend additional support if needed (BART Police pers. comm.).

3.9.1.3 Schools

This section describes the existing regulations and conditions with regard to schools serving San Bruno.

Regulatory Setting

State Regulations

Senate Bill 50

Senate Bill 50 (funded by bonds sold under Proposition 1A, approved in 1998) limits the power of Cities and Counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding and whether the school district meets certain additional criteria involving bonding capacity, year round school and the percentage of moveable classrooms in use.

California Government Code, Section 65995(b), and Education Code Section 17620

SB 50 amended the California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every two years, according to inflation adjustments. On January 24, 2018, the State Allocation Board (SAB) approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) to $4.08 per square foot of assessable space for residential development of 500 square feet or more, and to $0.66 per square foot of chargeable covered and enclosed space for commercial/industrial development (State Allocation Board 2020).

Mitigation Fee Act (California Government Code 66000-66008)

Enacted as AB 1600, the Mitigation Fee Act requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put. The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development plan on which it is to be levied. The Act came into force on January 1, 1989.

Local Regulations

City of San Bruno

The General Plan outlines various goals, policies, and implementing programs relevant to schools. The policies relevant to the Project call for clearly marked crosswalks near neighborhood commercial uses and monitoring of the growth of the school-aged population. The Project's consistency with applicable General Plan policies is evaluated in Section 3.6, *Land Use*, of this ~~Draft~~ EIR.

San Bruno Park School District / San Mateo Union High School District

The Project Site, inclusive of the Phase I Site, is served by two school districts: the San Bruno Park School District (SBPSD) and the San Mateo Union High School District (SMUHSD). These school districts, discussed below, are empowered to collect statutory fees from the construction of residential and commercial development to mitigate the impact of new development on school facilities. These fees are listed in Table 3.9-5.

Table 3.9-5. Current School Developer Fees

District	Residential	Commercial
San Bruno Park School District[a]	$3.29/sq foot	$0.53/sq foot
San Mateo Union High School District[b]	$1.39/sq foot	$0.22/sq foot

Sources:
a. San Bruno Park School District 2019
b. San Mateo Union High School District 2019

Environmental Setting

This section provides a discussion of the existing conditions related to schools that serve the Project Site, inclusive of the Phase I Site.

San Bruno Park School District

The SBPSD was established in 1907 and serves the City of San Bruno with five elementary schools and one middle school. The SBPSD schools are listed below (San Bruno Park Schools n.d.).

- Allen (Decima M.) Elementary (1941), 875 West Angus Avenue, San Bruno, CA 94066: Approximately 0.27 miles southeast from the Project Site.
- Belle Air Elementary (1952), 450 Third Avenue, San Bruno, CA 94066: Approximately 0.66 miles east from the Project Site.
- John Muir Elementary (1960), 130 Cambridge Lane, San Bruno, CA 94066: Approximately 0.88 miles southwest from the Project Site.
- Parkside Intermediate (1954), 1801 Niles Avenue, San Bruno, CA 94066: Approximately 0.77 miles southeast from the Project Site.
- Portola Elementary (1965). 300 Amador Avenue, San Bruno, CA 94066: Approximately 1.30 miles west from the Project Site.
- Rollingwood Elementary (1958), 2500 Cottonwood Drive, San Bruno, CA 94066: Approximately 0.86 miles northwest from the Project Site.

Among the schools listed above, the Project Site is served by Allen Elementary, Rollingwood Elementary, and Parkside Intermediate (San Bruno Elementary Park District n.d.).

Enrollment and Capacity

Table 3.9-6 shows SBPSD's recent past enrollments. According to the most recent enrollment figures, SBPSD's total enrollment for the 2018/2019 school year was 2,505, a 5 percent decrease from the previous year and a 10 percent decrease from 2014/2015. In general, all the schools in the SBPSD have experienced a decline in enrollment in recent years. The California Department of Finance (DOF) projects that overall K-12 enrollment in San Mateo Public Schools will decrease from approximately 94,411 for the 2019/2020 school year to 89,199 by the 2027/2028 school year (State of California 2019a). This is consistent with the current trend at SBPSD.

Table 3.9-6. Enrollment for the San Bruno Park Elementary School District

School	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Allen (Decima M.) Elementary	361	360	346	336	409
Belle Air Elementary	323	315	296	280	264
El Crystal Elementary	245	228	257	262	CLOSED
John Muir Elementary	352	344	330	329	437
Nonpublic, Nonsectarian Schools	14	11	10	9	7
Parkside Intermediate	859	846	791	816	789
Portola Elementary	352	344	366	347	337
Rollingwood Elementary	290	279	273	262	262
Total	**2,796**	**2,727**	**2,669**	**2,641**	**2,505**

Source: California Department of Education, DataQuest, https://dq.cde.ca.gov/dataquest/, accessed August 8, 2019.

Student Generation Rate

The SBPSD uses the following student generation rates according to unit type (DecisionInsite Team 2018):

- 0.42 for a Single Family Detached unit
- 0.27 for a Single Family Attached unit
- 0.21 for a Multifamily unit

Budget and Funding

The SBPSD's 2018-19 Adopted Budget was approximately $25 million (San Bruno Park School District 2018a). SBPSD's revenue sources include state funding through the Local Control Funding Formula and the Local Control Accountability Plan, property taxes, federal subsidies, mandated block grants, one-time mandated cost reimbursements, the Lottery, After School Education & Safety (ASES) Grants, and other sources. The SBPSD also collects fees levied on developers (aka Developer Fees). The current Developer Fees are $3.29/sf for residential development and $0.53/sf for commercial development. On November 8, 2108, Measure X was approved by voters and would allow the SBPSD to issue $79 million in bonds for capital improvements at District schools (San Bruno Park School District 2018b).

San Mateo Union High School District

The SMUHSD was established in 1902, beginning with the instruction of fourteen students in a converted, two-story single-family home at 54 North Ellsworth Street (San Mateo Union High School District 2019). The SMUHSD operates one alternative high school and six comprehensive high schools throughout San Mateo County, as listed below. The SMUHSD also allows students to attend any of the other comprehensive high schools through an intra-district transfer program.

- Aragon High School, 900 Alameda de las Pulgas, San Mateo, CA 94402: Approximately 7.30 miles southeast from the Project Site.
- Burlingame High School, 1 Mangini Way, Burlingame, CA 94010: Approximately 5.23 miles southeast from the Project Site.
- Capuchino High School, 1501 Magnolia Avenue, San Bruno, CA 94066: Approximately 1.44 miles southeast from the Project Site.

- Hillsdale High School, 3115 Del Monte Street, San Mateo, CA 94403: Approximately 9 miles southeast from the Project Site.
- Mills High School, 400 Murchison Drive, Millbrae, CA 94030: Approximately 3 miles southeast from the Project Site.
- San Mateo High School, 506 North Delaware Street, San Mateo, CA 94401: Approximately 6.16 miles southeast from the Project Site.
- Peninsula Alternative High School, 300 Piedmont, San Bruno, CA 94066: Approximately 1 mile south from the Project Site.
- San Mateo Middle College High School, 1700 W. Hillsdale Blvd. Bldg. 17, Room 154, San Mateo, CA 94402: Approximately 8 miles southeast from the Project Site.

Among the SMUHSD schools listed above, the Project Site would be served by Capuchino High School (San Mateo County Union Highschool District n.d.). In addition, some students enroll in private schools. While Capuchino High School and Peninsula High School are both located in San Bruno, students can choose to attend any of the district's schools.

Enrollment and Capacity

Table 3.9-7 shows enrollment at SMUHSD schools from 2014-2019. According to the most recent enrollment figures, SMUHSD's total enrollment for the 2018/2019 school year was 9,020, a 0.5 percent increase over the previous year and a 9 percent increase from 2014/2015. In general, all the schools in the SMUHSD have experienced an increase in enrollment in recent years. Capuchino High School, which would serve the Project Site, has seen a seven percent increase in enrollment since the 2014/2015 school year. However, the California Department of Finance projects that overall K-12 enrollment in the San Mateo Public School system will decrease from approximately 94,411 for the 2019/2020 school year to 89,199 by the 2027/2028 school year (State of California 2019a).

Table 3.9-7. Enrollment for the San Mateo Union High School District

School	Past 2014/2015 [a]	Past 2015/2016 [a]	Past 2016/2017 [a]	Past 2017/2018 [a]	Current 2018/2019 [a]
Aragon High	1,423	1,473	1,555	1,639	1,675
Burlingame High	1,316	1,339	1,425	1,475	1,492
Capuchino High	1,105	1,127	1,177	1,213	1,187
Hillsdale High	1,349	1,375	1,418	1,534	1,569
Mills High	1,214	1,198	1,240	1,220	1,182
Nonpublic, Nonsectarian Schools	11	36	27	26	16
Peninsula High	212	203	178	160	186
San Mateo High	1,555	1,615	1,670	1,665	1,713
Total	**8,185**	**8,366**	**8,690**	**8,986**	**9,020**

Source:
[a] California Department of Education, DataQuest, https://dq.cde.ca.gov/dataquest/, accessed February 8, 2019.

Student Generation Rate

According to the *2014 Developer Fee Justification Study for the San Mateo Union High School District*, the SMUHSD uses a student generation rate of 0.2 per household (San Mateo Union High School District 2014).

Budget and Funding

The SMUHSD's 2018-19 Adopted Budget was approximately $112 million (San Bruno Park School District 2018). SMUHSD's revenue sources include state funding through the Local Control Funding Formula and the Local Control Accountability Plan, property taxes, federal subsidies, along with other sources, The SMUHSD also collects fees levied on developers (aka Developer Fees), The current Developer Fees are $1.39/sf for residential development and $0.22/sf for commercial development. On November 7, 2006, voters approved Measure M, authorizing the issuance and sale of $298 million of general obligation bonds approved Measure M. On November 2, 2010, voters approved Measure O, which approved the issuance and sale of $186 million of general obligation bonds (James Marta & Company n.d.). Revenue from these measures are used to finance the costs of renovating, acquiring, constructing, repairing and equipping district buildings.

3.9.1.4 Parks and Recreation

This section describes the regulatory framework and environmental setting related to parks and recreation in San Bruno.

Regulatory Setting

State Regulations

Quimby Act

The Quimby Act (California Government Code section 66477) authorizes cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay park improvement fees as a condition to the approval of a tentative map or parcel map. Under the Quimby Act, fees must be paid and land conveyed directly to the local public agencies that provide park and recreation services communitywide. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The act allows cities and counties to require the dedication of up to three acres of parkland per 1,000 persons residing in a subdivision subject to the act, or equal to the existing parkland ratio up to five acres per 1,000 residents if the existing ratio is greater than three acres. Exactions must show a reasonable relationship to a project's impacts as identified through studies.

The Quimby Act does not apply to new rental (apartment) units. Traditionally, developers in San Bruno fulfilled their Quimby requirements by paying the in lieu fee; however, the City found it discouraged the creation of new ownership (condominium) units and was challenging to calculate and assess on applicable development projects. For this reason, the City Council approved the new DIF Ordinance on February 26, 2019 which repealed the City's Quimby Act in its entirety, instead relying on the provisions of Government Code Section 66000 et seq. to collect impact fees to fund the portion of the anticipated new park and recreation facility infrastructure and capital facilities needed to accommodate growth and maintain service standards. This prevented overlapping park dedication and in-lieu fee requirements, as the City's new Community Facilities DIF has a more streamlined calculation methodology and will fund parkland acquisitions necessary to serve all new development – including non-residential development and rental units- going forward. The DIF Nexus Study allocated the $60.5 million in future park facility costs based on the relative share of service population growth attributable to new residents and employees, respectively.

Local Regulations

The General Plan outlines various goals, policies, and implementing programs relevant to parks and recreation. The policies relevant to the Project establish a parkland goal of 4.5 acres per 1,000 residents and a goal to locate neighborhood park facilities within 1/3-mile walking distance of all residences in San Bruno (City of San Bruno 2009b). The Project's consistency with applicable General Plan policies is evaluated in Section 3.6, *Land Use*, of this ~~Draft~~ EIR.

3.9.1.5 Environmental Setting

This section provides a discussion of the existing conditions related to parks and recreation on the Project Site, inclusive of the Phase I Site.

The City of San Bruno contains four types of parks in addition to school district facilities that are available for recreational uses out of school hours: pocket parks, neighborhood parks, community parks and regional parks (City of San Bruno 2009b). Pocket parks are less than one acre and designed to serve residents of the surrounding blocks. They provide playgrounds and benches. Neighborhood parks are less than 15 acres and designed to serve the residential community within approximately 0.5 mile of the park. They provide playgrounds, picnic tables, and turf areas. Community parks are 30 to 100 acres and serve several neighborhoods, generally within 3 miles of the park. They provide sports facilities and recreational facilities. Regional parks are large parks and open spaces that serve as recreational resources to the surrounding region within approximately 15 miles of the facility. They provide passive facilities such as picnicking, hiking, and spaces for large group events. Table 3.9-8 shows parks in the City of San Bruno. The closest parks serving the Project Site are Commodore Park, Forrest Lane Park, and Grundy Park, all neighborhood parks within 0.5 mile; and Junipero Serra Park, a regional park operated by San Mateo County approximately 1 mile away.

Table 3.9-8. Park and Recreation Facilities in City of San Bruno

Park	Acres
Pocket Parks	
Catalpa Tot Lot	0.5
Earl and Glenview Park	0.5
Herman Tot Lot	0.25
Lomita Park	0.25
Posy Park	0.25
Neighborhood Parks	
Bayshore Circle Park	0.5
Buckey Park	7
Commodore Park	4
Fleetwood Tot Lot	0.5
Florida Ave Park (Future- Planned)	0.5
Forest Lane Park	1.25
Grundy Park	2.75
Lion's Field Park	3
Monte Verde Park	5
Pacific Heights Park	5
Ponderosa Park	0.75

Park	Acres
Seventh Avenue Park	0.5
Seventh and Walnut Park	0.5
Community Parks	
City Park	31
Total City Parks	***64***
Regional Parks	
Junipero Serra Park (San Mateo County Parks)	108
Total Regional Parks	***108***
School District Facilities with City Joint Use Agreement[1]	
Belle Air Elementary	4
Crestmoor High School	10
Parkside Elementary	5
Total School	***19***
Total Parkland	***191***

1 Only public school sites with a current (2019) City joint use agreement for recreation use by the public are shown.

In addition to the parks listed in Table 3.9-8, a future public recreational facility is planned to replace the existing Veteran's Memorial Recreation Center at 251 City Park Way. The planned Recreation and Aquatics Center will include a gymnasium, group exercise room, fitness room, classrooms, an indoor pool, a walking track, a community lounge, and a community hall. An outdoor pool will be built as part of a later phase pending additional funding.

Budget and Funding

On May 1, 2019, the City's comprehensive DIF program took effect (City of San Bruno 2019). The program requires residential and commercial developers to pay a one-time impact fee used to improve and expand infrastructure throughout the City. The Master Fee Schedule, July 2019 assigns an impact fee of $23,783 per residential unit, $4,410 per new hotel room, and $18.79 per square foot for office space in order to generate funds for infrastructure and facility improvements (City of San Bruno 2019). A portion of the DIF, depending on whether the new construction is nonresidential or residential, is specifically designated for community facilities, including parks.

As stated above, the City's General Plan includes a parkland goal of 4.5 acres per 1,000 residents (City of San Bruno 2019). According to recent California Department of Finance data, the City of San Bruno has a population of 44,859 (as of January 1, 2019) (State of California 2019b). If the goal is applied to this population,, approximately 202 acres of park land is required, and 191 acres are currently available, including school facilities with a current City joint use agreement, with the result that the City has a current shortage of 11 acres of park land. However, San Bruno is largely built out, and it is financially difficult for the City to acquire new parkland.

3.9.1.6 Library Services

This section describes the regulatory framework and environmental setting related to libraries in San Bruno.

Regulatory Setting

Local Regulations

The General Plan outlines goals, policies, and implementing programs relevant to libraries. The policies relevant to the Project address the provision of a wide range of library services to San Bruno residents. The Project's consistency with applicable General Plan policies is evaluated in Section 3.6, *Land Use*, of this ~~Draft~~ EIR.

Environmental Setting

This section provides a discussion of the existing conditions related to libraries that serve the Project Site, inclusive of the Phase I Site. The City of San Bruno is served by the Peninsula Library System (PLS), a consortium of 35 public and community college libraries founded in 1971 under a Joint Powers Agreement. The PLS is primarily funded by its member libraries,[1] including Burlingame Public Library, Daly City Public Library, Menlo Park Public Library, Redwood City Public Library, San Bruno Public Library, San Mateo County Libraries, City of San Mateo Public Library, South San Francisco Public Library, and the San Mateo County Community College District. PLS also receives support from the state California Library Services Act funds, federal Library Services and Technology Act and local contracts for special services (Peninsula Library System n.d.).

Library Facility and Services

The Project Site is served by the San Bruno Public Library, which belongs to the PLS (Peninsula Library System n.d.). The library is housed in a 15,600-square foot facility located at 701 Angus Avenue West at the intersection with El Camino Real, adjacent to City Hall (City of San Bruno 2009a). Visitation in 2017–2018 was 190,466 (Susan Goetz pers. comm.). The Facility Master Plan prepared for the library in 2000 determined that there was a shortage of materials and resources at that time. The 2009 General Plan identifies similar shortages, as shown in Table 3.9-9. Because the San Bruno Public Library belongs to the PLS, residents also have access to services from all member libraries, which partly makes up for the shortages.

Table 3.9-9. Public Library Services Evaluation

Service	Holdings as of August 2019	Needed Holdings/Facilities
Circulating Collection	91,250 volumes	133,000 volumes
Seating	67 chairs	178 chairs
Public Computers	14 computers	50 computers
Storytime Space	35 shared seats	40 seats
Group Study Areas	0 seats	28 seats
Parking	9 spaces	170 spaces
Meeting Room	50 seats	160 seats

Source: City of San Bruno. Tim Wallace, Community Services Superintendent. August 28, 2019.
City Of San Bruno. 2009. General Plan. Public Facilities Services Element. Available: https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24021. Accessed: February 15, 2019.

[1] The City of San Bruno allocated $134,233 in FY2018-19 for the PLS, including $78,652 for JPA fees.

3.9.2 Environmental Impacts

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

3.9.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below:

- A substantial adverse physical impact associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - Fire protection
    - Police protection
    - Schools
    - Parks
    - Other public facilities (e.g., libraries)
- An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- An adverse physical effect on the environment related to recreational facilities or the required construction or expansion of recreational facilities.

3.9.2.2 Methodology and Approach

Potential impacts on public services are evaluated by (a) assessing the potential for the Project and the Phase I Development to increase demand for public services based on goals established by service providers and (b) comparing the ability of the service provider/public facility to serve the Project and accommodate the associated increase in demand. A determination is then made as to whether the existing facilities are capable of meeting the demand of the Project and, if not, if expansion of existing facilities could cause an adverse environmental effect. The analysis is based on the review of City documents and maps, field reconnaissance, and communications with City service providers.

Buildout Scenario

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multi-family residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed.

This section analyzes the build out scenario which represents the "worst-case" scenario for public services and recreation. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts. As discussed in Section 3.7, *Population and Housing*, of this ~~Draft~~ EIR, implementation of the Maximum Office Scenario would result in an increase of 9,840 employees on the Project Site and no residents. Implementation of the Maximum Housing Scenario would result in an increase of 7,772 employees on the Project Site and 1,656 residents. The Phase I Development would generate 1,206 new employees and no residents. The employees generated by the Project under either buildout scenario would also result in indirect population generation in the City (i.e., employees who relocate their families to the city). However, it is speculative to assume where in the City the indirect population would locate, and whether they would be located within the service areas of the stations, schools, and parks that serve the Project Site. Therefore, the analysis of impacts to public services focuses on the direct population and employment generation that would result from the Project and the Phase I Development.

Fire

This analysis looks at the location of demand for fire protection services that would result from implementation of the Project and the Phase I Development in relation to existing stations and assesses the need for additional stations based on information provided from the San Bruno Fire Department. The need for additional stations is a complex issue which the Fire Department assesses based on a number of internal department programs and measures.

The Fire Department considers a project's service population to include the total residential population and half of the total employment population (San Bruno Fire Department pers. comm.). As discussed under *Buildout Scenari*o above, implementation of the Maximum Office Scenario would result in an increase of 9,840 employees on the Project Site and no residents under the Maximum Office Scenario. Implementation of the Maximum Housing Scenario would result in an increase of 7,772 employees on the Project Site and 1,656 residents. Therefore, the Maximum Housing Scenario is evaluated in the fire protection analysis for the Project since its fire service population (1,656 residents + 3,886 employees) would be greater than that of the Maximum Office Scenario (4,920 employees).

Police

This analysis looks at the location of demand for police protection services that would result from implementation of the Project and the Phase I Development in relation to existing stations. The identified service goal of the Police Department is to meet the national average of 16.6 officers for every 10,000 people. The need for additional stations or expansion of existing stations is evaluated based on a sworn officers-to-resident ratio, proposed Plan design features, and correspondence with the Police Department.

As discussed above, the Police Department tracks both residential service population and daytime service population metrics. The Maximum Housing Scenario would increase both the residential and daytime service populations on the Project Site. The Maximum Office Scenario would only increase the daytime service population, but that increase would be greater than the increase under the Maximum Housing

Scenario. As both scenarios would increase services populations, and therefore increase demand on police services, both development scenarios are evaluated in the analysis of impacts to police services.

Schools

This analysis determines the increase in students that would result from implementation of the Project under the Maximum Housing Scenario and assesses potential impacts on local schools. The Maximum Housing Scenario is evaluated since student generation is driven by residential uses. Student increases generated by the Project under the Maximum Housing Scenario are compared with each district's existing and projected school growth and school capacity to determine whether new facilities are needed, factoring in the payment of school developer fees.

Parks

This analysis determines whether the increase in service population that would result from implementation of the Project would cause a significant impact on existing park facilities. The analysis is informed by an assessment of whether the Project would preclude the City from achieving its parkland-to-population ratio goal of 4.5 acres for every 1,000 residents, applying the Maximum Housing Scenario since the City's parkland goal is driven by residents. As stated above, the City collects parkland mitigation fees through its DIF Ordinance, which identifies a need for additional parks to serve the City's existing service population. The DIF Ordinance repealed the City's Quimby Act in its entirety and has a more streamlined calculation methodology to fund parkland acquisitions necessary to serve all new development, including non-residential development. Thus, the analysis evaluates whether payment of development impact fees under the DIF Ordinance adequately mitigates Project impacts. Because the DIF takes service population (i.e., residents and employees) into consideration in determining the application of fees to fund parkland, both development scenarios are evaluated in the analysis of impacts to parks.

Libraries

The library analysis evaluates whether the Project would increase the demand for library service to the extent that construction of a new facility or expansion of the existing facility would be required, based on existing service capacity and anticipated demand. The City does not have an established standard or service ratio for the amount of library space per capita, though the General Plan does recognize goals for various library services and facilities as described in Table 3.9-9 above. As stated above, the City collects library mitigation fees through its DIF Ordinance, which identifies a need for additional library facilities to serve the City's existing service population. Thus, the analysis evaluates whether payment of development impact fees under the DIF Ordinance adequately mitigates Project impacts. Because the DIF takes service population (i.e., residents and employees) into consideration in determining the application of fees to fund libraries, both development scenarios are evaluated in the analysis of impacts to libraries.

3.9.2.3 Impacts and Mitigation Measures

Impact PS-1a (Fire). The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant

environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection (Project: Less than Significant).

Impact PS-1b (Fire). The Phase I Development would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection (Phase I Development: Less than Significant).

Project

As discussed above under *Methodology and Approach*, the Maximum Housing Scenario would increase the Fire Department's service population by 5,542 persons, which would result in an increase in the number of calls for fire protection and emergency services. As discussed above under *Existing Conditions*, the Fire Department includes 35 sworn officers and a service population of 52,182 persons, or approximately 1,491 persons per firefighter. The addition of the Project's 5,542 persons to the Fire Department's service population would reduce the service ratio to 1,649 persons per firefighter. While the Project would result in a reduced firefighter-to-service-population ratio, the San Bruno Fire Department is part of a JPA, which effectively extends fire service delivery capacity in San Mateo County to the entire peninsula-wide jurisdiction, with the ability to pull in other engine companies if necessary. In addition, Station No. 51, which is approximately 0.35 mile south of the Project Site, would provide close access to the Project Site in the event of a fire or medical emergency.

The San Bruno Municipal Code incorporates the 2016 California Fire Code and the 2015 International Fire Code. All new construction under the Project would need to be in conformance with these codes which would require new construction to facilitate emergency access and to include fire protection systems (such as alarm systems and sprinklers). This would reduce the risk of fire at all new buildings, whether residential or office.

The Fire Department is currently averaging a four minute and 41 second response time, which surpasses the JPA standard of six minutes and 59 seconds. While the addition of 5,542 persons to the Fire Department's service population would increase the number of calls for fire protection and emergency service, this is unlikely to negatively impact response times which are already surpassing the regional standard. Notwithstanding the current response times, which are adequate, the San Bruno Fire Department indicated that new Fire Department staff would likely be needed to respond to the projected increase in calls associated with the Project (San Bruno Fire Department pers. comm.). While staffing needs are an important policy and public safety consideration, CEQA's focus is on physical effects on the environment that could occur from the construction of new facilities.

As noted in the City's DIF Nexus Study, the City has identified the need to replace and reconstruct both of the City's fire stations at an identified cost of $20,950,620, and replace fire equipment (e.g., vehicles) at a total cost of $4,736,850. The DIF Ordinance requires all residential and commercial developers to pay a one-time impact fee charged at the issuance of building permits for new construction in the City. This fee is collected and used to improve and expand public capital facilities and infrastructure throughout the City needed to serve new residential and commercial growth. A portion of the DIF would be used for public safety, including fire capital facilities and infrastructure, including equipment (e.g., vehicles). The new facilities identified in the DIF Nexus Study, which would serve forecasted growth in the city, would be subject to their own independent CEQA review. Therefore, payment of the development impact fee would address the Project's share of the improvement and/or expansion of capital facilities and infrastructure, a need that has already been identified by the City.

Based on the above, with the payment of the development impact fee, the Project would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, Project impacts to fire protection would be ***less-than-significant***.

Phase I Development

As described in Section 3.7, *Population and Housing*, the Phase I Development would construct approximately 440,000 new square feet of office space and remove 138,524 square feet of existing office space, for an increase of 301,476 net new square feet of office space. Based on the average of 1 job per 250 square feet, the Phase I Development is expected to generate 1,206 net new employees, or a fire service population of 603 (half of the employees). The Phase I Development would not include any residential units and would not increase the population on the Project Site.

The Phase I Development buildings would be in conformance with the San Bruno Municipal Code, which incorporates the 2016 California Fire Code and the 2015 International Fire Code, which would require new construction to facilitate emergency access and to include fire protection systems (such as alarm systems and sprinklers). In addition, the Phase I Development includes a fire access lane located adjacent to the eastern and northern property line.

According to San Bruno Fire Department, the existing nearby fire stations would provide sufficient coverage for Phase I Development, and no new facilities would be required to serve new office development resulting from implementation of Phase I Development (San Bruno Fire Department pers. comm.).

As noted above in the Project anlaysis, the DIF Ordinance requires all residential and commercial developers to pay a one-time impact fee charged at the issuance of building permits for new construction in the City. This fee is collected and used to improve and expand public capital facilities and infrastructure throughout the City needed to serve new residential and commercial growth. A portion of the DIF would be used for public safety, including fire capital facilities and infrastructure, including equipment (e.g., vehicles). The new facilities identified in the DIF Nexus Study, which would serve forecasted growth in the city, would be subject to their own independent CEQA review.. Therefore, payment of the development impact fee would address the Phase I Development's share of the improvement and/or expansion of capital facilities and infrastructure, a need that has already been identified by the City.

Therefore, for the reasons stated above, and with the payment of the development impact fee required by the DIF Ordinance, the Phase I Development would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, fire protection impacts resulting from the Phase I Development would be ***less-than-significant***.

Impact PS-2a (Police). The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant

environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection (Project: Less than Significant).

Impact PS-2b (Police). The Phase I Development would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection (Phase I Development: Less than Significant).

Project

The additional residents and daytime population generated by the Project would result in an increase in the number of calls for law enforcement services. As discussed above, the police department serves a daytime (peak) population of 51,818, resulting in an officer per person ratio of 9.5 per 10,000 individuals during daytime (peak) hours. The Project under the Maximum Housing Scenario could generate 1,656 new residents and 7,772 employees in the city of San Bruno, increasing the daytime service population to 59,590. This would result in an officer per resident ratio of 8 per 10,000 residents. The Project under the Maximum Office Scenario would increase the daytime population in San Bruno by 9,840, from 51,818 to 61,658. This would result in an officer per daytime resident ratio of 7.95 officers per 10,000. The police department's established goal is to meet the national average of 16.6 officers for every 10,000 people; therefore, the Project, under either scenario, would reduce the officer per resident ratio even further below the department's goal because it would increase demand for police services.

Future projects developed under the Specific Plan would be designed using Crime Prevention Through Environmental Design (CPTED) concepts. CPTED is a collection of principles and concepts which enhance safety and security through design strategies involving natural surveillance, natural access control, territorial reinforcement, and maintenance and management. In addition, the San Bruno Police Department would review all plans associated with the future projects under the Specific Plan to address and minimize security concerns.

As discussed above, the Project would degrade the existing service ratios due to additional on-site employees and potentially residents under either buildout scenario. While the Police Department participates in a mutual aid agreement with the other law enforcement jurisdictions in San Mateo County, this has a limited ability to provide police response services to the Project Site in a critical incident. Even if the proposed uses provide on-site private security, the City's experience to date is that unarmed security does not reduce calls for service from the Police Department. The Police Department has stated that it would need to increase staffing to serve the increased permanent and daytime population resulting from the Project (San Bruno Police Department pers. comm.). Based on the size and nature of the Project, it is anticipated that there would be a greater need for traffic and parking enforcement efforts. Finally, based on the high-profile nature of the Project Site and calls for service at the Project Site over the past few years, the Police Department anticipates that it would need to dedicate substantial resources to work with future property owners to establish advanced and complex security measures and critical incident response plans (San Bruno Police Department pers. comm.). While staffing needs are an important policy and public safety consideration, CEQA's focus is on physical effects on the environment that could occur from the construction of new facilities.

The Police Department has no plans to expand its current facility at 1177 Huntington Avenue, and it is not feasible to enlarge the existing building, as it is on leased land from BART and cannot be expanded (San Bruno Police Department pers. comm.). As noted in the City's DIF Nexus Study, the City has identified the need for specific upgrades and additions to help the Police Department serve new growth in the City. These include the expansion of the Evidence Room at a cost of $650,000, upgrades to the Dispatch Center at a cost of $700,000, the creation of a satellite police substation at a cost of $30,000, upgrades to surveillance and tracking technology at a cost of $525,000, and the replacement of Police vehicles at a cost of $4,075,983. The DIF Ordinance requires all residential and commercial developers to pay a one-time impact fee charged at the issuance of building permits for new construction in the City. This fee is collected and used to improve and expand public capital facilities and infrastructure throughout the City needed to serve new residential and commercial growth. A portion of the DIF would be used for public safety, including police capital facilities and infrastructure, including equipment (e.g., vehicles). The new facilities identified in the DIF Nexus Study, which would serve forecasted growth in the city, would be subject to their own independent CEQA review. Therefore, payment of the development impact fee would address the Project's share of the improvement and/or expansion of capital facilities and infrastructure, a need that has already been identified by the City.

Based on the above, with the payment of the development impact, the Project would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered police facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, Project impacts to police protection would be ***less-than-significant***.

Phase I Development

As described in Section 3.7, *Population and Housing*, the Phase I Development would construct approximately 440,000 new square feet of office space and remove 138,524 square feet of existing office space, for an increase of 301,476 net new square feet of office space. Based on the average of 1 job per 250 square feet, the Phase I Development is expected to generate 1,206 net new employees. The Phase I Development would not include any residential units and would not increase the population on the Project Site.

As discussed above, the Police Department serves a daytime population of 51,818, resulting in an officer per resident ratio of 9.5 per 10,000 individuals during daytime hours. The Phase I Development could generate 1,206 new employees in the city of San Bruno, resulting in a daytime population of 53,024. This would result in an officer per resident ratio of 9.24 per 10,000 residents, a decrease in acceptable service ratios that would be noticeable and would reduce the City's ability to provide police response within acceptable response times. According to the Police Department, implementation of the Phase I Development is anticipated to result in the need for new police staffing (San Bruno Police Department pers. comm.). While staffing needs are an important policy and public safety consideration, CEQA's focus is on physical effects on the environment that could occur from the construction of new facilities.

As noted above in the Project analysis, the DIF Ordinance requires all residential and commercial developers to pay a one-time impact fee charged at the issuance of building permits for new construction in the City. This fee is collected and used to improve and expand public capital facilities and infrastructure throughout the City needed to serve new residential and commercial growth. A portion of the DIF would be used for public safety, including police capital facilities and infrastructure, including equipment (e.g., vehicles). The new facilities identified in the DIF Nexus Study, which would serve forecasted growth in the city, would be subject to their own independent CEQA review. Therefore, payment of the development impact fee would address the Phase I Development's share of the improvement and/or expansion of capital facilities and infrastructure, a need that has already been identified by the City.

Therefore, for the reasons stated above, and with the payment of the development impact fee required by the DIF Ordinance, the Phase I Development would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered police protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, police protection impacts resulting from the Phase I Development would be ***less-than-significant***.

Impact PS-3a (Schools). The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools (Project: Less than Significant).

Impact PS-3b (Schools). The Phase I Development would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools (Phase I Development: No Impact).

Project

The SBPSD and the SMUHSD have developed metrics to estimate student generation based on housing unit type. Table 3.9-10 and Table 3.9-11 show the estimated number of new students for the Project under the Maximum Housing Scenario.

Table 3.9-10. Estimated Students Generated in San Bruno Park School District – Maximum Housing Scenario

Block	New Market Rate Units	Student Generation Rate	Students
Single Family Detached	0	0.42	0
Single Family Attached	0	0.27	0
Multi-family Units	573	0.21	120
Total	**573**		**120**

Source (generation rates): DecisionInsite Team, San Bruno Park School District, Student Generation Rate Assumptions, August 10, 2018.

Table 3.9-11. Estimated Students Generated in San Mateo Union High School District – Maximum Housing Scenario

Block	New Market Rate Units	Student Generation Rate	Students
Housing Units	573	0.2	115
Total	**573**		**115**

Source (generation rates): San Mateo Union High School District, October 2014, 2014 Developer Fee Justification Study for San Mateo Union High School District.

San Bruno Park Elementary School District

As shown above in Table 3.9-10, the Project under the Maximum Housing Scenario would generate 120 elementary students according to the SBPSD's student generation rates. According to the most recent enrollment figures, total enrollment for the 2018/2019 school year was 2,505, a 5 percent decrease from the previous year and a 10 percent decrease from 2014/2015. The California DOF projects that overall K-12 enrollment in San Mateo Public Schools will decrease from approximately 94,411 for the 2019/2020 school year to 89,199 by the 2027/2028 school year (State of California 2019a).

The SBPSD collects fees levied on developers (aka Developer Fees). The current Developer Fees are $3.29/sf for residential development and $0.53/sf for commercial development.

As the SBPSD has seen a decline in enrollment, and the DOF projects San Mateo Public School enrollment to decline by 5,212 students by the 2027/2028 school year, the increase of 120 students would be accommodated within the capacity of SBPSD schools. Additionally, development under the Project would be subject to developer fees which are deemed to fully mitigate the impact of new development on school districts.[2] Therefore, Project impacts related to the SBPSD from the Project would be ***less than significant***.

San Mateo Union High School District

As shown above in Table 3.9-11, the Project under the Maximum Housing Scenario would generate 115 high school students according to the SMUHSD's student generation rates. Total enrollment for the 2018/2019 school year was 9,020, a 0.5 percent increase over the previous year and a 9 percent increase from 2014/2015. Capuchino High School, which would serve the Project Site, has seen a seven percent increase in enrollment since the 2014/2015 school year. In general, all the schools in the SMUHSD have experienced an increase in enrollment in recent years. However, the California DOF projects that overall K-12 enrollment in the San Mateo Public School system will decrease from approximately 94,411 for the 2019/2020 school year to 89,199 by the 2027/2028 school year.

The SMUHSD collects fees levied on developers (aka Developer Fees). The current Developer Fees are $1.39/sf for residential development and $0.22/sf for commercial development.

As the SMUHSD has seen an increase in enrollment, and Capuchino High School has seen a nine percent increase since the 2014/2015 school year, the increase of 115 students could impact capacity at SMUHSD schools. Project-related students could attend Capuchino High School or Peninsula High School, both of which are located in San Bruno, or they could choose to attend any of the district's schools outside of San Bruno. In any case, future developments occurring under the Project would be subject to developer fees which are deemed to fully mitigate impact of new development on school districts.[3] Therefore, impacts related to the SMUHSD from the Project would be ***less than significant***.

Phase I Development

The Phase I Development would not include any residential units that would generate new students who would need to be served by the SMHUSD or SBPSD. Therefore, there would be ***no impact*** on schools resulting from the Phase I Development.

Impact PS-4a (Parks). The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for

[2] Government Code Section 65995(b)(3).
[3] Government Code Section 65995(b)(3).

new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks (Project: Less than Significant).

Impact PS-4b (Parks). The Phase I Development would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks (Phase I Development: Less than Significant).

Project

As discussed under *Buildout Scenari*o above, the Project under the Maximum Housing Scenario could generate 1,656 new residents in the city of San Bruno. Table 3.9-12 shows the acreage of parkland that would be required for the additional residents added under the Maximum Housing Scenario in order to meet the General Plan's parkland-to-residents goal.

Table 3.9-12. Calculated Acreage of New Park Land Required to Meet General Plan Goal

Parkland	Number of new residents	Number of acres recommended per resident[a]	Total new park land acreage recommended
Project, Maximum Housing Scenario	1,656	0.0045	7.452

Source:
[a] City of San Bruno. 2009. Open Space and Recreation Element. Available: https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24018. Accessed: February 15, 2019.

As discussed above under *Environmental Setting*, the city currently has 191 acres of park land available for a population of 44,859, resulting in a shortage of 11 acres of park land according to the City's General Plan parkland goal of 4.5 acres per 1,000 residents. The Project, which would require 7.5 acres under full buildout of the Maximum Housing Scenario to satisfy the General Plan goal, would further increase the City's parkland deficit resulting in increased demand on existing parkland.

While the City's General Plan parkland goal is a measure of acres per resident, the City's DIF Nexus Study recognizes that area employees also generate a demand on parks (EPS 2019). As stated above, the DIF Nexus Study allocates $60.5 million in future park facility costs based on the relative share of service population growth attributable to new residents and employees. Construction of the Project under either buildout scenario would cause demand for parkland to increase, further exacerbating the existing need for additional parkland. Applicants of future developments would be required to pay development impact fees to satisfy the City's parkland dedication requirement pursuant to the DIF Ordinance enacted under Government Code 66000 et seq., which would fund a portion of the anticipated new park and recreation infrastructure and capital facilities needed to accommodate growth and maintain service standards. The fees paid by future developers would be used by the City to acquire and/or improve new park and recreation infrastructure and capital facilities. New facilities would be subject to their own independent CEQA review. Therefore, payment of the development impact fee would address the Project's share of the improvement and/or expansion of capital facilities and infrastructure, a need that has already been identified by the City.

Based on the above, with the payment of the development impact fee, the Project would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered park facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As such, Project impacts to parks would be ***less-than-significant***.

Phase I Development

The Phase I Development would not include any residential units that would generate new residents subject to the City's General Plan parkland goal. However, the Phase I Development is expected to generate 1,206 net new employees. As stated above in the Project analysis, the City's DIF Nexus Study recognizes that area employees generate demand on San Bruno parkland. The Phase I Development applicant would pay development impact fees to fund the portion of the anticipated new park and recreation infrastructure and capital facilities needed to accommodate growth and maintain service standards; therefore, payment of the development impact fee would address the Phase I Development's share of the improvement and/or expansion of capital facilities and infrastructure. Therefore, the Phase I Development would not result in a substantial adverse physical impact which would generate the need for new or physically altered parks, and impacts would be ***less than significant***.

Impact PS-5a (Libraries). The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries (Project: Less than Significant).

Impact PS-5b (Libraries). The Phase I Development would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries (Phase I Development: Less than Significant).

Project

The City's General Plan states that the existing library space is inadequate for the population of the city of San Bruno. As shown in Table 3.9-9 above, in 2009, the San Bruno Public Library had a shortage in its book collection, seating, public computers, storytime space, group study areas, parking, and meeting room space. Since that time, the library has not expanded these elements due to a lack of funding. At this time, the San Bruno Public Library does not have plans in place to construct new facilities.

As noted in the City's DIF Nexus Study (EPS 2019), the City has identified the need to replace and reconstruct the City library at a total cost of $55 million, based on the relative share of service population growth attributable to new residents and employees. Construction of the Project under either buildout scenario would cause demand for library services to increase, further exacerbating the existing need for additional library space. Applicants of future developments would be required to pay development impact fees to satisfy the City's library dedication requirement pursuant to the DIF Ordinance enacted under Government Code 66000 et seq., which would fund a portion of the anticipated new library facilities needed to accommodate growth and maintain service standards. The fees paid by future developers would be used by the City to acquire and/or improve new library facilities. New facilities would be subject to their own independent CEQA review. Therefore, payment of the development impact fee would address the Project's share of the improvement and/or expansion of capital facilities and infrastructure, a need that has already been identified by the City.

Based on the above, with the payment of the development impact fee, the Project would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered libraries in order to maintain acceptable service ratios, response times, or other performance objectives. As such, Project impacts to libraries would be ***less-than-significant***.

It is also noted that the Project may establish a 2.1-acre area fronting San Bruno Avenue West between Traeger Avenue and Elm Avenue where a civic use of up to 50,000 square feet would be permitted, subject to decision and direction, and identification of funding, by the City Council. No specific use has been designated for the site, and approval of any future civic facility would be subject to its own CEQA review. However, if a new library is constructed in this location, it would provide a beneficial impact to San Bruno to meet the anticipated increased demand for library services created by the Project.

Phase I Development

The Phase I Development would not include any residential units that would generate new residents in the city. However, the Phase I Development is expected to generate 1,206 net new employees. As stated above in the Project analysis, the City's DIF Nexus Study recognizes that area employees generate demand for library services. The Phase I Development applicant would pay development impact fees to fund the portion of the anticipated new library facilities needed to accommodate growth and maintain service standards; therefore, payment of the development impact fee would address the Phase I Development's share of the improvement and/or expansion of capital facilities and infrastructure. Therefore, the Phase I Development would not result in a substantial adverse physical impact which would generate the need for new or physically altered libraries, and impacts would be ***less than significant***.

Impact REC-1a. The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (Project: Less than Significant)

Impact REC-1b. The Phase I Development would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (Phase I Development: Less than Significant)

Project

Construction

Construction of future development under the Project would create construction jobs on the Project Site. The number of construction workers on-site would vary according to the stage of construction. It is unlikely that construction workers would visit the nearest parks (Commodore Park, Grundy Park, and Forest Lane Park) during lunch breaks and/or after work because the nearest parks are separated by high-volume roadways or are otherwise inconvenient to access from the Project Site. If construction workers do visit nearby parks, such use would most likely be modest given the number of workers associated with the Project due to the incremental nature of the buildout under the Specific Plan. Therefore, although construction of the Project could incrementally increase demand for park services, the Project would not result in the substantial adverse physical environmental impacts associated with the provision of new or physically altered park facilities to maintain acceptable service ratios or other performance objectives. Therefore, construction under the Project would not result in substantial physical deterioration of park facilities. The impact would be ***less than significant***.

Operation

New employees and residents associated with the Project could increase the use of the existing neighborhood and regional parks and other recreational facilities described in Section 3.9.1.4. Please refer to the analysis of Impact PS-4. As stated therein, future development under the Project would be required to pay development impact fees. The development impact fees would be used for the acquisition or rehabilitation of park land and recreational facilities pursuant to the City's DIF Ordinance. Payment of development impact fees would mitigate the Project's fair share contribution to the physical deterioration of existing parks and recreational facilities. This impact would be ***less than significant***.

Phase I Development

Construction

For the reasons stated above in the Project analysis, construction of the Phase I Development would not result in substantial physical deterioration of park facilities. The impact would be ***less than significant***.

Operation

New employees associated with the Phase I Development could increase the use of the existing neighborhood and regional parks and other recreational facilities described in Section 3.9.1.4. Please refer to the analysis of Impact PS-4. As stated therein, the Phase I Development would be required to pay development impact fees under the City's DIF Ordinance, which accounts for employment growth under the Phase I Development. The development impact fees would be used for the acquisition or rehabilitation of park land and recreational facilities pursuant to the City's DIF Ordinance. With payment of development impact fees, which is required by the DIF Ordinance, the Phase I Development's impacts on existing parks and recreational facilities would be ***less than significant***.

Impact REC-2a. The Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment (Project: No Impact)

Impact REC-2b. The Phase I Development would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment (Phase I Development: No Impact)

Project

The 92.2-acre Project Site is located in a highly urbanized area characterized by numerous surface parking lots that serve the on-site uses. The Project would create new landscape and open space features which would consist of a continuous network of enhanced sidewalks and pathways, protected bike lanes, open space landscaped areas with native plants, and social gathering spaces. These open space elements are evaluated as part of the project's construction throughout the EIR. The Project would therefore improve an existing, urbanized area with limited access for walking and bicycling with features that would enhance and expand recreational opportunities. Therefore, the expansion of recreational facilities resulting from the Project would have a less than significant effect on the environment. The Project does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, ***no impact*** would occur.

Phase I Development

The Phase I Development would construct approximately 440,000 square feet of office and accessory space on existing surface parking lots. The Phase I Development would also include the construction of "Cherry Avenue Plaza," a publicly-accessible plaza area located on 1000 Cherry Avenue. While the Phase I Development would contain hard and softscape landscaping elements, and some open space, it would not contain any recreation facilities or require the construction or expansion or recreational facilities which might have an adverse physical effect on the environment. Therefore, ***no impact*** would occur.

3.9.3 Cumulative Impacts

This cumulative analysis examines the effects of the Project and the Phase I Development, in combination with other past, present, and reasonably foreseeable projects, and projected future growth, on public services and recreation. Section 3.0, *Introduction to Analysis*, , of this ~~Draft~~ EIR identifies reasonably foreseeable projects in the city. These reasonably foreseeable projects include mixed-use residential, multi-family retail, residential multifamily, office, hotel, and shopping center improvements. Together, if all are approved and constructed, they would provide a projected 702 residential units and approximately 389,089 square feet of retail, medical, office, and hotel space. The population and employment growth that could occur from the related projects in conjunction with the Project is described in Section 3.8, *Population and Housing*, of this ~~Draft~~ EIR.

The geographic context for the analysis of cumulative public service impacts may differ according to the service area being analyzed. The geographic context for cumulative impacts related to fire and police services, parks and recreational facilities, and libraries is the City of San Bruno because these services are provided on a citywide basis, and service ratios by which demand is estimated are based on citywide figures. The geographic context for cumulative analysis for impacts on schools would include the communities served by the SBPSD and SMUHSD.

Impact C-PS-1a. The Project, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to fire protection, police protection, school, park, or library services (Project: Less Than Cumulatively Considerable)

Impact C-PS-1b. The Phase I Development, in combination with past, present, and reasonably foreseeable projects, would not result in significant cumulative impacts with respect to fire protection, police protection, school, park, or library services (Phase I Development: Less Than Cumulatively Considerable)

Project

A significant cumulative environmental impact would result if the Project, in combination with other past, present, and reasonably foreseeable projects, would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, school, park, or library services. This analysis considers potential impacts on fire protection, police protection, school, park, and library services that could occur as a result of implementing the Project in combination with reasonably foreseeable growth. The area of cumulative effect for fire protection, police protection, park, and library services is the City of San Bruno. The areas of cumulative effects for schools are the area served by SBPSD (City of San Bruno) and the area served by SMUHSD (San Mateo County).

The Project, in combination with other past, present, and reasonably foreseeable projects, would increase the cumulative demand for fire protection, police protection, school, park, and library services. As noted above, the City's DIF Nexus Study identifies the need to replace and reconstruct both of the City's fire stations at an identified cost of $20,950,620, and replace fire equipment (e.g., vehicles) at a total cost of $4,736,850. Police Department upgrades and additions include the expansion of the Evidence Room at a cost of $650,000, upgrades to the Dispatch Center at a cost of $700,000, the creation of a satellite police substation at a cost of $30,000, upgrades to surveillance and tracking technology at a cost of $525,000, and the replacement of Police vehicles at a cost of $4,075,983. Approximately $60.5 million is allocated for future park facilities, and the need to replace and reconstruct the City library is identified at a total cost of $55 million. The DIF Ordinance requires all residential and commercial developers to pay a one-time impact fee charged at the issuance of building permits for new construction in the City. This fee is collected and used to improve and expand public capital facilities and infrastructure throughout the City needed to serve new residential and commercial growth. New facilities would be subject to their own independent CEQA review. Future development, including the identified related projects, would be required to pay the development impact fee under the DIF Ordinance. The payment of the DIF (or, in the case of schools, SBPSD and SMUHSD school developer fees) would ensure that the Project's contribution to cumulative impacts on fire protection, police protection, school, park, and library facilities would be ***less than cumulatively considerable***. It is noted that payment of the DIF fees would mitigate the Project's fair share of the cumulative impact, and is not intended to address existing recognized deficiencies.

Phase I Development

The projected buildout year of the Phase I Development is ~~2022~~ 2025. The Phase I Development, in combination with other past, present, and reasonably foreseeable projects built by ~~2022~~ 2025, would increase the cumulative demand for fire protection, police protection, park, and library services in ~~2022~~ 2025, further exacerbating the existing need for additional fire protection, police protection, park, and library facilities that has already been identified by the City in the DIF Nexus Study. The Phase I Development and other future developments would be required to pay the development impact fee under the DIF Ordinance, described above. Therefore, payment of the development impact fee (or, in the case of schools, SBPSD and SMUHSD school developer fees) would address the Phase I Development's share of the improvement and/or expansion of capital facilities and infrastructure, and the impact would be ***less than cumulatively considerable.*** It is noted that payment of the DIF fees would address the Phase I Development's fair share of the cumulative impact, and is not intended to address existing recognized deficiencies.

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3.10 Transportation

This section describes the environmental and regulatory setting for transportation in the City of San Bruno as it pertains to the Bayhill Specific Plan and Phase I Development (Project). It also describes the transportation impacts, if any, that would result from implementation of the Project and provides mitigation for significant impacts where feasible. As discussed in Chapter 1, *Introduction*, of this ~~Draft~~ Environmental Impact Report (EIR), the Project comprises the Specific Plan and Phase I Development under the Specific Plan, which consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level, and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described.

Issues identified in response to the Notice of Preparation (NOP) (Appendix 1) and revised NOP were considered in preparing this analysis. The NOP comments pertaining to transportation include:

- Developing first-mile/last-mile connections to regional transit systems;
- Improving pedestrian, bicycle, disabled traveler, and transit user circulation to and from the Project Site;
- Implementing a robust Transportation Demand Management (TDM) Program to reduce vehicle-miles traveled (VMT);
- Reducing the amount of parking provided at the site to discourage driving;[1] and
- Identifying any increase in traffic at regional facilities, particularly at freeway on- and off-ramps, as a result of the Project.

These issues are addressed throughout this chapter.

Table 3.10-1, below, defines the analysis scenarios considered in the transportation analysis.

Table 3.10-1. Transportation Analysis Scenarios

Scenario	Description
Scenario 1: Existing Conditions	Existing conditions obtained from the San Mateo City/County Association of Governments Travel Demand Model. Existing transportation network conditions obtained from site observations, including records of vehicle and driveway counts, roadway and sidewalk conditions, and intersection operations. Existing conditions account for transportation improvements from projects that were under construction at the start of environmental documentation and expected to be in operation before Project opening.[a]
Scenario 2a: Existing Plus Project Conditions[b]	Existing Conditions from Scenario 1 adjusted by the Project's effect on the transportation network.
Scenario 2b: Existing Plus Phase I Development Conditions[c]	Existing Conditions from Scenario 1 adjusted by the Phase I Development's effect on the transportation network.

[1] Parking ratios were considered in the development of the Specific Plan but are not discussed in this document because parking is not a California Environmental Quality Act evaluation criterion unless some parking-related issue may give rise to a potential secondary physical environmental impact.

Scenario	Description
Scenario 3: 2040 without Project Conditions	2040 conditions based upon forecasts from the countywide traffic model, including Plan Bay Area 2040 land use projections and the planned and funded transportation system improvements for 2040 in Plan Bay Area.
Scenario 4a: 2040 Plus Project Conditions[b]	2040 without Project Conditions from Scenario 3 adjusted by the Project's effect on the transportation network.

Source: Fehr & Peers 2019

Notes:

[a] NOP circulated first on November 17, 2017, and recirculated with a revised Project study area on July 26, 2019.

[b] The analysis conservatively defines the Project as the Maximum Office Scenario, which is expected to generate the highest number of vehicle trips and VMT.

[c] Although Phase I Development is anticipated to be complete in 2023, Existing Plus Phase I Development Conditions were used to evaluate the near-term Project's impact given the land use and transportation improvements planned for implementation during that timeframe. For example, Caltrain electrification will begin revenue service with more frequent service in 2023 and new developments will be completed that add residential and commercial density between the Caltrain Station and the Plan Area; these changes are expected to minimally reduce the baseline VMT for the Plan Area and, as such, Existing Scenario 2b is a more conservative scenario.

3.10.1 Existing Conditions

3.10.1.1 Regulatory Setting

This section summarizes regional and local regulations and policies applicable to the Project concerning transportation.

A jurisdiction is a level of government (city, county, state, or federal) or regulatory authority (local, regional, state, or federal) that is responsible for some or all aspects of the planning, implementation, operations, and maintenance of transportation facilities and services in a defined area. The City of San Bruno has jurisdiction over all public City streets and City-operated traffic signals. The neighboring cities of South San Francisco, Pacifica, and Millbrae have jurisdiction over local roadways within their respective jurisdictional boundaries. The California Department of Transportation (Caltrans) has jurisdiction over State facilities, including US 101, Interstate (I-) 280, I-380, State Route (SR) 35 (Skyline Boulevard), and SR 82 (El Camino Real). Caltrans also has jurisdiction over on- and off-ramp intersections with local streets. The County of San Mateo has jurisdiction over streets in unincorporated areas. Streets and intersections within San Francisco International Airport (SFO) boundaries are owned and policed by the City and County of San Francisco. Transit agencies that operate within the city limits are the San Mateo County Transit District (SamTrans), Caltrain, BART, and Commmute.org. Several of the regional, state, and federal agencies that are described in the following sections have jurisdiction over transportation planning and implementation of circulation improvements in the City of San Bruno.

Federal Regulations

Americans with Disabilities Act of 1990

The Americans with Disabilities Act of 1990 (revised 2010) is a landmark civil rights law that prohibits discrimination based upon disability. Titles I, II, III, and V of the act have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination on the basis of disability in "places of public accommodation" (businesses and non-profit agencies that serve the public) and "commercial facilities" (other businesses). The regulation includes Appendix 4.13-A to Part 36 (Standards for Accessible Design), which establishes minimum standards for ensuring accessibility for persons with a disability when designing and constructing a new facility or altering an existing facility, including roadways, parking lots, and sidewalks. Examples of key guidelines include detectable warnings for pedestrians when entering traffic where there is no curb, a clear zone of 48 inches for the pedestrian travel way, and a vibration-free zone for pedestrians.

State Regulations

California Department of Transportation

Caltrans has authority over the State highway system, including freeways, interchanges, and arterial routes. Caltrans operates and maintains State highways in San Bruno. The *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2001) provides information that Caltrans uses to review impacts on State highway facilities, including freeway segments. This guidance was updated by the *Local Development – Intergovernmental Review Program Interim Guidance* published in November 2016 for consistency with Senate Bill (SB) 743.

State Transportation Improvement Program

The California Transportation Commission administers transportation programming, which is the public decision-making process that sets priorities and funds projects that have been envisioned in long-range transportation plans. The California Transportation Commission commits expected revenues for transportation projects over a multi-year period. The State Transportation Improvement Program is a multi-year capital improvement program for transportation projects both on and off the State highway system. The State Transportation Improvement Program is funded with revenues from the State Highway Account and other funding sources. State Transportation Improvement Program programming typically occurs every 2 years.

California Transportation Plan 2040

The California Transportation Plan 2040 was adopted in 2016. The plan, which is overseen by Caltrans, serves as a blueprint for California's transportation system, as defined by goals, policies, and strategies to meet the State's future mobility needs. The goals defined in the plan fall into three categories: social equity, prosperous economy, and quality environment. Each goal is tied to performance measures. In turn, members from regional and metropolitan planning agencies report these performance measures to Caltrans (State of California 2007). Caltrans is presently working on an update to the California Transportation Plan that would extend to 2050. The 2040 update is expected to be approved in 2020.

Assembly Bill 32 and Senate Bill 375

With the passage of Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (CARB) is coordinating a response to comply with AB 32. In 2008, CARB defined its 1990 baseline level of emissions. On December 11, 2008, CARB adopted its *Proposed Scoping Plan for AB 32*. This scoping plan included the approval of SB 375 as the means for achieving regional transportation-related GHG targets. In 2011, CARB completed its major rulemaking for reducing GHG emissions. Rules on emissions, as well as market-based mechanisms such as the cap-and-trade program, took effect on January 1, 2012.

SB 375 provides guidance regarding curbing emissions from cars and light trucks to help the State comply with AB 32. There are four major components to SB 375. First, SB 375 requires regional GHG emissions targets. CARB's Regional Targets Advisory Committee will guide the adoption of targets to be met by 2020 and 2035 for each Metropolitan Planning Organization (MPO) in the state. These targets, which MPOs may propose themselves, must be updated every 8 years in conjunction with the revision schedule of the housing and transportation elements of local general plans. Second, MPOs are required to create a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan for meeting the target. Third, SB 375 requires regional housing elements and transportation plans to be synchronized on 8-year schedules. In addition, Regional Housing Needs Assessment allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within 3 years of adoption of the housing element. Finally, MPOs must use transportation and air emissions modeling techniques that are consistent with the guidelines prepared by the California Transportation Commission. Regional Transportation Planning Agencies, cities, and counties are encouraged, but not required, to use travel demand models that are consistent with California Transportation Commission guidelines. The adopted RTP, per SB 375 (Plan Bay Area), is discussed below.

Complete Streets (AB 1358)

AB 1358, also known as the California Complete Streets Act of 2008, requires cities and counties to include "complete street" policies in their general plans. These policies address the safe accommodation of all users, including bicyclists, pedestrians, motorists, public transit vehicles and riders, children, the elderly, and persons with disabilities. These policies can apply to new streets, as well as the redesign of corridors.

Senate Bill 743

With the passage of SB 743 (September 27, 2013) and the subsequent adoption of the revised California Environmental Quality Act (CEQA) Guidelines (December 28, 2018), level of service (LOS) can no longer be used as a criterion for identifying significant transportation impacts for most projects under CEQA effective July 1, 2020. LOS measures the average amount of delay experienced by vehicle drivers at an intersection during the most congested time of day, while the new metric VMT measures the total number of daily miles traveled by vehicles on the roadway network and thereby the impacts on the environment from those miles traveled.

In other words, SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts *on* drivers to measuring the impact *of* driving. Land use projects with one or more of the following characteristics would have lesser VMT impacts:

- Higher land use densities
- Mix of project uses
- Support of a citywide jobs-housing balance (i.e., provide housing in a job-rich area, or vice versa)
- Proximity to the core of a region
- Proximity to high-quality transit service
- Location in highly walkable or bikeable areas

This shift in transportation impact criteria is expected to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. The new vehicle miles traveled (VMT) methodology is required as of July 1, 2020. ~~Specific to SB 743, Section 15064.3(c) of the revised CEQA Guidelines states that, "a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide." However, CEQA Statute Section 21099(b)(2) states that, "upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, 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 pursuant to this division, except in locations specifically identified in the Guidelines."~~

~~Although the Governor's Office of Planning and Research (OPR) provides recommendations for adopting new VMT analysis guidelines, lead agencies have the final say in designing their methodology. Lead agencies must select their preferred method of estimating and forecasting VMT, their preferred significance thresholds for baseline and cumulative conditions, and the mitigation strategies they consider feasible. Lead agencies must prove that their selected analysis methodology aligns with SB 743's goals to promote infill development, reduce GHGs, and reduce VMT.~~

Regional Regulations

Metropolitan Transportation Commission

Metropolitan Transportation Commission (MTC) is the Bay Area's regional transportation planning agency and federally designated MPO. MTC is responsible for preparing the RTP, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities. The RTP is a 20-year plan that is updated every 3 years to reflect new planning priorities and changing projections of future growth and travel demand. The long-range plan must be based upon a realistic forecast of future revenues, and the transportation projects taken as a whole must help improve regional air quality. MTC also screens requests from local agencies for State and federal grants for transportation projects to determine compatibility with the RTP.

Plan Bay Area 2040

Plan Bay Area 2040 is overseen by MTC and the Association of Bay Area Governments (ABAG). It serves as the region's SCS and the 2040 RTP (preceded by *Transportation 2035*), integrating transportation and land use strategies to manage GHG emissions and plan for future population growth. The RTP and SCS include policies that call for shifting more travel demand to transit and accommodating growth along transit corridors in Priority Development Areas. In July of 2017, Plan Bay Area 2040 was adopted by ABAG and MTC. Major projects included in Plan Bay Area 2040 include high-speed rail along the Caltrain corridor, Caltrain electrification, express lanes on US 101 in San Mateo County, and improvements to local and express bus services, including bus rapid transit services along El Camino Real in Santa Clara County.

Bay Area Air Quality Management District

The Bay Area Air Quality Management District is the regional agency with the authority to develop and enforce regulations for the control of air pollution throughout the Bay Area. The Clean Air Plan is the district's plan for reducing the emissions of air pollutants that combine to produce ozone. The Bay Area Air Quality Management District has published guidelines for the purpose of evaluating the air quality impact of projects and plans. One criterion calls for plans, including general plans, to demonstrate reasonable efforts to implement the transportation control measures included in the Clean Air Plan that identify local governments as the implementing agencies.

On-road motor vehicles are the largest source of air pollution in the Bay Area. To address the impact of vehicles, the California Clean Air Act requires air districts to adopt, implement, and enforce transportation control measures.

El Camino Grand Boulevard Initiative

The Grand Boulevard Initiative is a multi-jurisdictional regional planning effort that focuses on the El Camino Real corridor from San Jose to San Francisco. The Grand Boulevard Initiative is currently in progress. The City of San Bruno is moving forward with projects that promote higher-density housing and mixed-use development along El Camino Real, in accordance with the Grand Boulevard Initiative Guiding Principles and the Transit Corridors Plan Specific Plan (Transit Corridors Plan, TCP). The TCP allows buildings up to five stories on El Camino Real and San Bruno Avenue, four stories on San Mateo Avenue, up to seven stories west of San Mateo Avenue, and up to five stories east of San Mateo Avenue within the TCP Station Area character area.

Some of the current proposed development projects along the El Camino Real corridor in San Bruno include:

- **160 El Camino Real:** three-story hotel with 33 rooms and underground parking
- **271 El Camino Real:** three-story residential project with 24 townhomes and apartments
- **Mills Park Plaza:** mixed-use development with residential and retail

San Mateo County Regulations

The City of San Bruno is subject to regulations set by the County of San Mateo and the San Mateo City/County Association of Governments (C/CAG).

San Mateo C/CAG

As the designated Congestion Management Agency for San Mateo County, the San Mateo C/CAG is primarily responsible for administering the State-mandated Congestion Management Program (CMP). San Mateo C/CAG-designated CMP roadway system components in San Bruno include SR 82 (El Camino Real), US 101, I-380, and I-280. The San Mateo C/CAG's LOS standard for intersections on this network is LOS E or better. LOS is a qualitative description of operations ranging from LOS A, when the roadway facility has excess capacity and vehicles experience little or no delay, to LOS F, where the volume of vehicles exceeds the capacity, resulting in long queues and excessive delays. LOS E represents "at-capacity" conditions, and LOS F represents "over-capacity" conditions.

The San Mateo C/CAG is also responsible for preparing the Countywide Transportation Plan, which establishes a long-range transportation vision for the county and informs the RTP/SCS prepared by MTC and ABAG. The current version of the plan looks at horizon year 2040 and was adopted in February 2017. The San Mateo C/CAG also partners with local jurisdictions and other transportation agencies to develop transportation plans and studies for areas and projects with countywide and regional significance.

County of San Mateo

Streets in unincorporated areas are under the auspices of the San Mateo County Public Works Department. Department staff members are responsible for maintaining and operating all of the expressways and streets on County property.

The San Mateo County Transit District

SamTrans is the administrative body for the principal public transit and transportation programs in San Mateo County: SamTrans bus service, including Redi-Wheels & RediCoast paratransit service; Caltrain commuter rail; and the San Mateo County Transportation Authority. Caltrain and the San Mateo County Transportation Authority have contracted with SamTrans to serve as their managing agency, under the direction of their appointed boards.

SamTrans' Short-Range Transit Plan is a federally mandated planning document that describes the plans, programs, and goals of the SamTrans transit service. It has a 10-year planning horizon and is updated annually, and it focuses on the characteristics and capital needs of the existing system and on committed (funded) expansion plans. The current plan proposes increased service levels for fixed-route transit, including new express bus routes, increased paratransit services, and increased commuter shuttles. SamTrans will also continue to contribute monetarily to Caltrain service and replace and expand the bus vehicle fleet.

Local Regulations

The City of San Bruno guides land use planning decisions within the City's boundaries. The City's existing planning documents and Zoning Code guide development review. In the Project area, this includes the San Bruno General Plan (2009), the San Bruno Walk 'N Bike Plan (2016), and the Transit Corridors Plan (2013). The City is in the process of updating the Zoning Code. Although small revisions have been made over time, the last comprehensive Zoning Code update occurred over 30 years ago. The current update to the Zoning Code will reflect new policies within the recently adopted TCP.

San Bruno General Plan (2025)

The City of San Bruno General Plan (2025) was adopted March 24, 2009. The State requires every city and county in California to prepare a general plan to guide decision-making by the City Council, Planning Commission, City departments, and other governmental agencies on specific development applications. The City of San Bruno General Plan has identified Transportation, Land Use and Urban Design, and Open Space and Recreation policies related to access and mobility. These policies include measures such as providing efficient local transit to BART and Caltrain, maintaining acceptable LOS for vehicular movement along the street network, and focusing San Bruno's efforts on improvements to the nonmotorized transportation system adjacent to transit corridors and stations. These measures support multi-modal transportation design throughout the City of San Bruno while promoting efficient, safe, and pleasant movement for all transportation modes.

San Bruno Walk 'N Bike Plan

The City of San Bruno Walk 'N Bike Plan was adopted July 26, 2016. The plan presents the desired state of walking and biking in San Bruno 10 years out that would result from implementation of the Walk 'N Bike Plan.

In recognizing the public's desire for an improved network of sidewalks, street crossings, bike lanes, bike routes, and walking and biking paths and trails to access more destinations, the City aims to provide access to an expanded range of programs, events, and activities in the areas of pedestrian and bicycle safety, education, encouragement, and promotion.

The public views walking and biking in a positive light by recognizing the benefits of these modes to personal and public health, mobility, neighborhood livability, social interaction, the local economy, and the environment, and it supports continued improvements. The City administration also recognizes the benefits and embraces opportunities to integrate walking and biking as vital parts of a more balanced multi-modal transportation network by developing new facilities, improving existing ones, enhancing traffic enforcement, and adopting other supportive policies and practices. The City of San Bruno is experiencing a trend of an ever-increasing transportation mode shift away from driving and toward walking and biking.

Chapters 5 through 8 of the Walk 'N Bike Plan identify specific infrastructure projects and program action items that would implement the City's vision. Many of these projects are within or adjacent to the Project Site.

San Bruno Transit Corridors Specific Plan 2013

The TCP was adopted February 12, 2013. The TCP articulates the community's vision for revitalized commercial corridors in proximity to the San Bruno Avenue Caltrain Station and BART Station. The TCP Plan Area includes the portion of El Camino Real and its frontage properties outside of and bordering the Project Site, as well as a small portion of San Bruno Avenue next to the south side of the Project Site. Guiding policies included in the TCP are listed in Table 3.10-2, below. Implementation policies in the TCP were also referenced while evaluating the Project. While the TCP's land use planning area does not include any of the Project Site, it applies to roadways and transportation facilities and services in the vicinity that will serve and be affected by the Project and includes policies whose implementation may have an effect on the Project.

Table 3.10-2. TCP Transportation Policies

Policy	Text
TRANS-A	Promote the development of the Transit Corridors Area's street and intersection network that supports the proposed intensification of land uses, while providing mobility for all travel modes.
TRANS-B	Ensure increased transit connectivity within and to/from the Transit Corridors Area and provide for transit amenities at stops and stations that increase the visibility of stops/stations and improve the comfort and convenience for transit riders.
TRANS-C	Encourage improved bicycle connectivity and enhanced bicycle parking opportunities within the Transit Corridors Area linking the surrounding land uses and future Caltrain station.
TRANS-D	Facilitate pedestrian access and safety through pedestrian enhancements, including the provision of enhanced crosswalks at all intersections and wider sidewalks and pedestrian amenities along the transit corridors.
TRANS-E	Develop and implement a parking management strategy for the Plan area that makes efficient use of the City's parking supply through shared parking strategies and that provides the lowest number of parking spaces, while still maintaining the viability of the Plan through efficient use of the parking supply within the Plan Area.
TRANS-F	Develop and implement a TDM Program that reduces the amount of peak-period motor vehicle traffic and encourages the use of modes other than the single-occupant vehicle.

3.10.1.2 Environmental Setting

This section provides a discussion of the existing conditions related to transportation and traffic around and within the Project Site including the Phase I Site.

Regional Setting

Roadway System

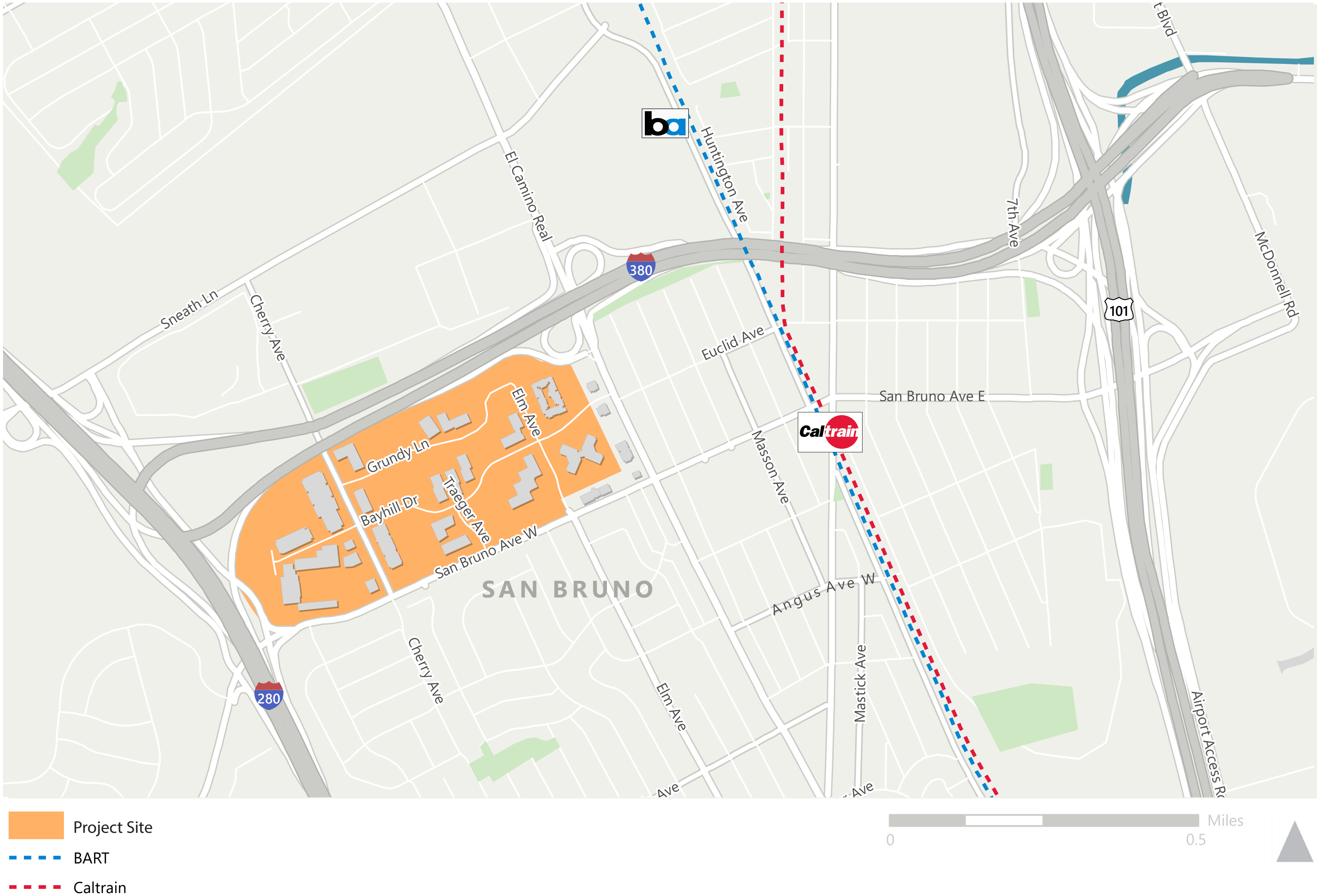
Four prominent regional routes surround the Project Site: US 101, I-280, I-380, and SR 82/El Camino Real. The latter three routes form western, northern, and eastern Project Site boundaries, respectively. The regional and local circulation system in the vicinity of the Project Site is shown on Figure 3.10-1.

US 101 is a major north-south freeway in San Mateo County and provides regional access to the Project Site. The freeway is about a mile east of the Project Site and extends southward to Santa Clara and beyond and northward to San Francisco and beyond. Near the Project Site, the freeway provides four travel lanes in each direction and occasionally an auxiliary lane in both the northbound and southbound directions. There are no high-occupancy vehicle (HOV) lanes in either direction on this stretch of US 101. The I-380/US 101 interchange provides the most direct access to the Project Site, although the entrance and exit ramps at San Bruno Avenue provide an alternative route.

I-280 is a north-south freeway that runs north from San Jose to San Francisco. I-280 acts as the western boundary of the Project Site and can be accessed directly from San Bruno Avenue or the I-380 interchange. There are no HOV lanes on I-280 in San Mateo or San Francisco Counties. Near the Project Site, there are four travel lanes in each direction and occasionally an auxiliary lane in both the northbound and southbound directions.

I-380 is a 1.7-mile east-west freeway in San Mateo County that connects I-280 with US 101. The I-280 and I-380 junction wraps the northwestern corner of the Project Site, and I-380 continues to serve as the entire northern boundary for the Project Site. There are four travel lanes in the westbound and eastbound directions and no HOV lanes on the freeway.

SR 82/El Camino Real refers to a segment of the historic “King’s Highway” route through Southern and much of Northern California. SR 82/El Camino Read defines the section of this route that runs north-south along the southwestern boundary of San Francisco Bay, connecting I-880 in San Jose with San Francisco. The six-lane roadway parallels Caltrain tracks for much of its route through San Mateo County. Although traffic volumes and speed limits are lower than on the surrounding freeways, SR 82/El Camino Real is an important regional route that connects many downtowns and important commercial centers along the peninsula. SR 82/El Camino Real is also the primary bus transit route through San Bruno and surrounding cities. Near the Project Site, there are sidewalks on both sides of SR 82/El Camino Real, but no bicycle facilities.



Source: Fehr & Peers, 2020.

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Figure 3.10-1
Regional and Local Roadways

Transit

SamTrans is the primary regional and local transit provider within San Mateo County, serving all rail stations within the county and major transit transfer points for Santa Clara and San Francisco Counties. The San Bruno BART station is a little under a mile walk from the eastern edge of the Project Site and just under a 1.5-mile walk to the Bayhill Shopping Plaza. The San Bruno Caltrain station is a half-mile walk from the eastern edge of the Project Site and a mile walk from the Shopping Plaza. Funding from a combination of private and public sources provides free commute shuttles between BART's and Caltrain's respective San Bruno stations and Cherry Avenue within the Project Site.

Bus service near the Project Site is provided along San Bruno Avenue, SR 82/El Camino Real, Cherry Avenue, Bayhill Drive, and I-380. Figure 3.10-2 illustrates the existing SamTrans, BART, and Caltrain routes and stops in the vicinity of the Project Site. YouTube and Walmart shuttle stops are also indicated on Figure 3.10-2. Table 3.10-3, below, describes the service provided on these routes and the nearest stops to the Project Site. All shuttle services and a few bus routes stop at Cherry Avenue and Bayhill Drive. For most other routes, however, the nearest stop is on SR 82/El Camino Real, either at San Bruno Avenue or adjacent to the I-380 eastbound ramps.

El Camino Real is an active bus corridor, particularly for regional bus travel. SamTrans' El Camino Real route, from Daly City BART to the Palo Alto Transit Center, is the most frequent route serving the Project Site. It runs every 15 minutes on weekdays and every 20 minutes on weekends. Other nearby routes provide local service and operate on 30- to 60-minute headways. In addition to regional and regular local service, SamTrans operates one school route (49) and one all-night route (399) near the Project Site. Routes offering weekend service include 140, El Camino Real, 398, and 399. The BART, Caltrain, YouTube, and Walmart shuttles only operate on weekdays during business hours. BART and Caltrain shuttles operate direct routes between their respective San Bruno stations and 850 Cherry Avenue with no stops in between. The BART and Caltrain shuttles operate on 15-minute and 20-minute headways, respectively.

~~YouTube and Walmart provide employee-only long-haul shuttles as an alternative to public transit.~~ Walmart, in partnership with Commute.org, also provides a publicly accessible shuttle service connecting the Project Site to the BART and Caltrain stations. Shuttles travel to and from San Francisco, the South Bay, and the East Bay. Approximately 40 percent of YouTube employees commute to the Project Site on the long-haul shuttles.[2] ~~YouTube also provides a local, employee-only shuttle connecting the Project Site to the BART and Caltrain stations. Employee shuttle service runs throughout the day with peak service operating during the morning and evening commute hours.~~ As illustrated on Figure 3.10-2, ~~the YouTube and Walmart~~ shuttles stop in front of ~~their respective~~ buildings on Cherry Avenue and Elm Avenue.

[2] YouTube Employee Survey 2017 & 2018.

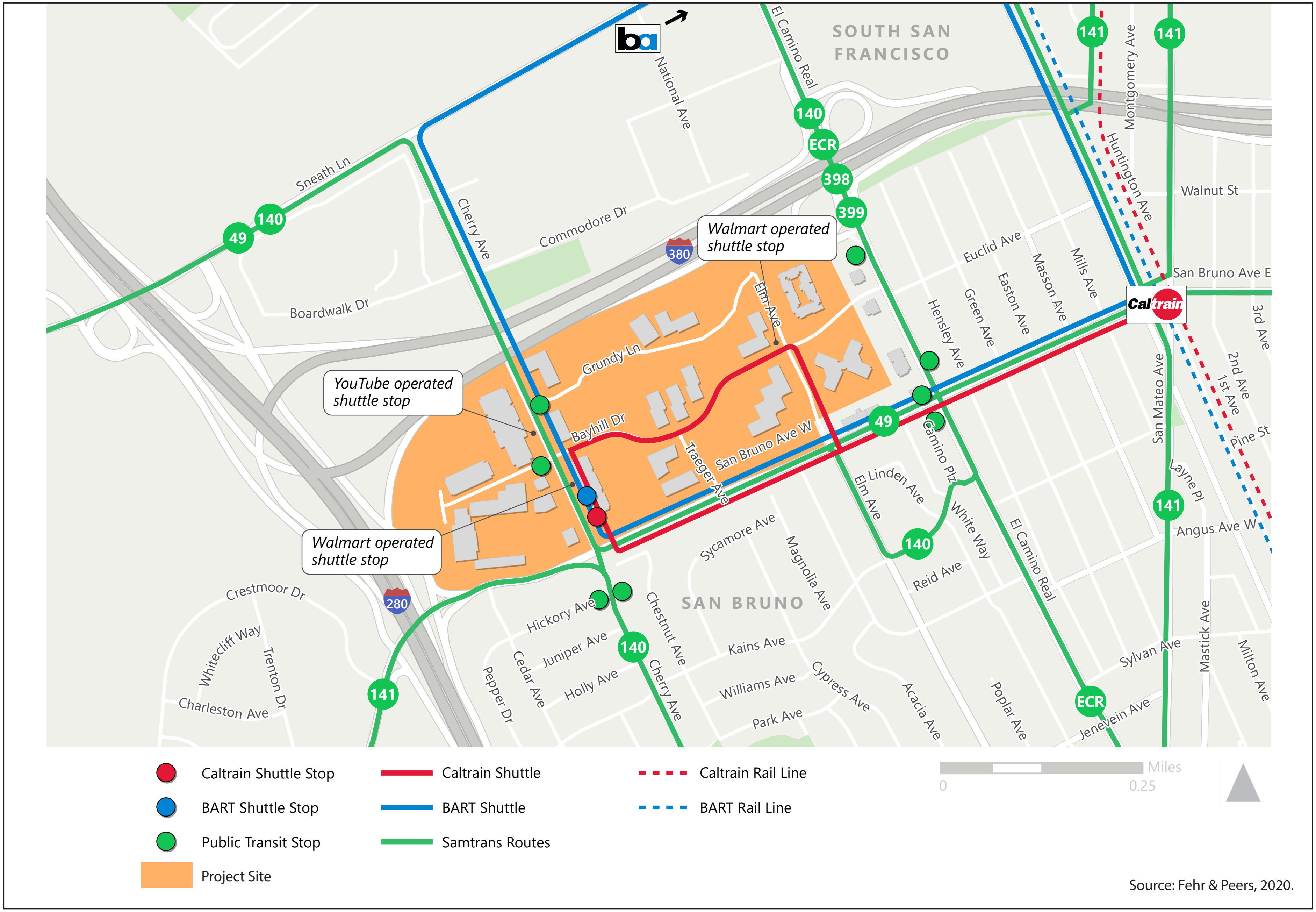

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Figure 3.10-2
Existing Transit Network

Table 3.10-3. SamTrans, Caltrain, and BART Service

			Weekday Operations		Weekend Operations	
Line	**Route**	**Nearest Stop**	**Hours of Operation**	**Frequency**	**Hours of Operation**	**Frequency**
140	SFO AirTrain – Manor/Palmetto	Cherry at Grundy	5:50 a.m.–12:20 p.m.	60 minutes	8:00 a.m.–6:45 p.m.	60 minutes
141	Airport/Linden – Shelter Creek	Cherry at Hickory	6:10 a.m.–8:00 p.m.	30 minutes	7:15 a.m.–7:00 p.m.	30 minutes
El Camino Real	Daly City BART – Palo Alto Transit Center	El Camino at San Bruno	3:50 a.m.–1:40 a.m.	15 minutes	4:45 a.m.–2:00 a.m.	20 minutes
398	Downtown San Francisco – Redwood City Transit Center	El Camino at San Bruno	5:05 a.m.–12:10 a.m.	60 minutes	5:00 a.m. (Sat)/6:00 a.m. (Sun)–11:10 p.m.	60 minutes
49	Terra Nova High – Airport	Cherry at Grundy	6:45 a.m.–7:45 a.m. 3:10 p.m.–4:10 p.m.	1 bus (school route)	--	--
BART Shuttle	San Bruno BART – Bayhill Shopping Center	Cherry at Bayhill	7:00 a.m.–10:05 a.m. 4:00 p.m.–6:30 p.m.	15 minutes	--	--
Caltrain Shuttle	San Bruno Caltrain – Bayhill Shopping Center	Cherry at Bayhill	7:35 a.m.–10:30 a.m. 4:00 p.m.–6:40 p.m.	20 minutes	--	--
BART Train	Antioch/Richmond – SFO/Millbrae	Huntington at Tanforan	NB: 5:15 a.m.–12:00 a.m. SB: 6:05 a.m.–1:30 a.m.	Approx. 15 minutes	NB: 8:20 a.m.–12:00 a.m. SB: 9:00 a.m.–1:30 a.m.	Approx. 20 minutes
Caltrain Train	4th & King (SF) – SJ Diridon/Gilroy	Huntington at San Mateo Ave	NB: 5:40 a.m.–11:40 a.m. SB: 5:15 a.m.–12:25 a.m.	Varies from 15–45 minutes	NB: 10:00 a.m.–11:30 p.m. SB: 8:30 a.m.–10:00 p.m.	60 minutes

Project Site

Roadway System

The local circulation system serving the Project Site and its vicinity is shown on Figure 3.10-1. The following roadways provide local access to the Project Site.

Cherry Avenue is a four-lane roadway running north-south through the western half of the Project Site. Cherry Avenue serves commercial properties within the Project Site in addition to residential uses both north and south of the Project Site. On-street parking and loading is permitted on portions of Cherry Avenue within the Project Site. This includes designated public bus stops and private shuttle stops. Sidewalks approximately 8 feet wide exist on both sides of the street, which expand into large pedestrian plazas fronting 901 and 850 Cherry Avenue. No bicycle facilities exist on Cherry Avenue.

San Bruno Avenue is a four-lane roadway that defines the southern boundary of the Project Site. San Bruno Avenue is a major east-west arterial through the City of San Bruno, extending to Skyline Boulevard to the west and SFO to the east. San Bruno Avenue provides freeway access to both I-280 and US 101. Near the Project Site, on-street parking is not permitted, and a planted median divides the roadway. A narrow sidewalk extends along the north side of San Bruno Avenue, the south side from El Camino Real to Acacia Avenue, and from east of Chestnut Avenue to Cherry Avenue. There are no bicycle facilities on San Bruno Avenue.

Grundy Lane is the northernmost local street within the Project Site, running east-west for just under a half-mile. Several surface parking lot driveways are accessed from Grundy Lane and on-street parking is permitted along most of the street. There are sidewalks on both sides of the street, but no bicycle facilities.

Bayhill Drive runs east-west, bisecting the Project Site. The four-lane local road has a landscaped median with trees and a few driveways. Bayhill Drive provides access to SR 82/El Camino Real, Cherry Avenue, Elm Avenue, and Traeger Avenue. On-street parking is not permitted. There are sidewalks on both sides of the street, but no bicycle facilities.

Traeger Avenue serves as a north-south connection between San Bruno Avenue and Bayhill Drive. There are two travel lanes in either direction, one driveway on the eastern side, and two driveways on the western side. On-street parking is not permitted. There are sidewalks on both sides of the street, but no bicycle facilities.

Elm Avenue is the easternmost north-south street within the Project Site. There are two travel lanes in either direction south of Bayhill Drive and only one in each direction north of Bayhill Drive. Elm Avenue curves west to become Grundy Lane near the northeast corner of the Project Site. On-street parking is not permitted, but Walmart shuttles load on the northwest corner of Elm Avenue and Bayhill Drive during commute hours. There are sidewalks on both sides of the street, but no bicycle facilities.

Transit

There are two public transit stops within the Project Site. One is on northbound Cherry Avenue on the south side of Grundy Lane and the other is on southbound Cherry Avenue just south of the 899 Cherry Avenue driveway. In addition, there are multiple public transit stops within a block of the Project Site, including both northbound and southbound stops on El Camino Real, San Bruno Avenue, and Cherry Avenue south of San Bruno Avenue. Private commuter shuttles load passengers in no-parking zones along Cherry Avenue and on a portion of Elm Avenue north of Bayhill Drive.

Pedestrian Network

Sidewalks are provided on both sides of all streets within the Project Site, as well as on both sides of SR 82/El Camino Real; San Bruno Avenue has a sidewalk on the north, but not on the southern side of the roadway. Sidewalks range in width from approximately 5 feet on San Bruno Avenue to approximately 10 feet on Cherry Avenue and Bayhill Drive; other sidewalk widths are somewhere between this minimum and maximum. All sidewalks include ramps at intersections and crossings; some have been upgraded with Americans with Disabilities Act accessible features, such as directional curb ramps and truncated domes. Sidewalk pavement is generally in good condition with minimal obstructions.

Standard crosswalks—parallel lines with no internal markings—are provided for all internal intersections (excluding driveway openings to surface parking lots). In addition, there are three high-visibility crosswalks: one crossing Cherry Avenue at the Bayhill Shopping Center driveway and two crossing Cherry Avenue at the Grundy Lane intersection. Rectangular Rapid Flashing Beacons are installed for the two Cherry Avenue/Grundy Lane crossings. Standard crosswalks are also provided at all major intersections near the site across El Camino Real and San Bruno Avenue. However, the crosswalk striping across the I-380 eastbound off-ramp is significantly worn and difficult to see. There are no marked crosswalks across the following San Bruno Avenue cross-streets: White Way, Acacia Avenue, Traeger Avenue, and Chestnut Avenue. Figure 3.10-3 illustrates existing pedestrian facilities and pedestrian facilities proposed under the Walk ‘N Bike Plan in the area.

Based on field observations, pedestrian activity on the Project Site is concentrated on Cherry Avenue due to the location of shuttle and transit stops on Cherry Avenue. Very low levels of pedestrian activity were observed in the rest of the site. Pedestrians crossed at the Cherry Avenue/Bayhill Drive intersection almost every signal cycle and appeared to be a mix of office park employees, neighborhood residents, and Bayhill Shopping Center customers. The few pedestrians observed throughout the rest of the site were almost all office park employees or construction workers on Grundy Lane.

The site slopes downward from west to east and presents a potential deterrent for pedestrians, especially those originating on SR 82/El Camino Real (coming from buses, Caltrain, or BART) with an uphill destination on the far west side of the Project Site. Additionally, SR 82/El Camino Real and San Bruno Avenue are six- to eight-lane roadways, making it difficult for pedestrians to maneuver and cross. Although sidewalks are provided along both streets, the sidewalk widths are narrow relative to the vehicle speeds traversing the corridor. Neither street includes bicycle facilities, and both present a long pedestrian crossing distance. Despite these obstacles, a handful of pedestrians and cyclists were observed crossing SR 82/El Camino Real during the a.m. period. Many cyclists used the crosswalks to traverse SR 82/El Camino Real, indicating their discomfort with cycling in mixed traffic across the busy street. I-380 and I-280 also present obstacles to entering the site on foot from the north or west.

Figure 3.10-3 shows sidewalk, streetscape, crosswalk, and intersection improvements proposed in the City of San Bruno Walk ’N Bike Plan within the Project Site and on adjacent streets. The Walk ‘N Bike Plan proposes adding pedestrian-scale lighting, street furniture, public art, and landscaping along El Camino Real and on San Bruno Avenue, east of El Camino Real. In addition to these streetscape improvements, proposed crosswalk improvements on San Bruno Avenue include yield lines, painted bulb-outs, and removal of corner parking and other elements that restrict visibility. The Walk ‘N Bike Plan also calls for intersection improvements along Cherry Avenue, SR 82/El Camino Real, and San Bruno Avenue. Suggested improvements include adding corner bulb-outs and pedestrian refuge islands, which would reduce crossing distance for pedestrians and improve pedestrian visibility at the intersection. A further recommendation suggests adding push buttons and Rectangular Rapid Flashing Beacons, which would activate pedestrian crossings at signalized intersections and add flashing lights to alert vehicles to the presence of a pedestrian. Since the publication of the Walk 'N Bike Plan, two intersections on Cherry Avenue—one at the Bayhill Shopping Center driveway and one at Grundy Lane—were upgraded with the installation of high-visibility crosswalks, additional yield lines, and a Rectangular Rapid Flashing Beacon at Grundy Lane.

Bicycle Network

Bicycle facilities are typically separated into four classes:

- **Class I (Bicycle Path)**: These facilities are located off-street and can serve both bicyclists and pedestrians.
- **Class II (Bicycle Lanes)**: These facilities provide a dedicated area for bicyclists within the paved street width through the use of striping and appropriate signage.
- **Class III (Bicycle Routes)**: These facilities are installed along streets that do not provide sufficient width for dedicated Class II bicycle lanes. The street is designated as a bicycle route, where bikes and cars share the road through the use of on-street markings and signage, which inform drivers to expect bicyclists.
- **Class IV (Cycletrack/Protected Bicycle Lanes)**: These facilities are for the exclusive use of bicycles and require a vertical element that serves as a barrier separating the bikeway and adjacent vehicular traffic.

Currently, Class II bicycle lanes are provided along Sneath Lane and a small stretch of Commodore Drive, north of the Project Site. Neither of these facilities serves as direct routes to the Project Site, and no bicycle facilities are currently in place on the Project Site. Figure 3.10-4 illustrates the site-adjacent existing facilities, plus proposed bicycle facilities near the Project Site, as described in Chapter 6 of the City of San Bruno Walk 'N Bike Plan. The Walk 'N Bike Plan proposes several new facilities within the Project Site, including a separated (Class IV) bikeway on Cherry Avenue and Class II bike lanes on Bayhill Drive, Elm Avenue, and San Bruno Avenue. The Walk 'N Bike Plan also proposes Class III bike routes on Euclid Avenue, Elm Avenue, Cherry Avenue, and Commodore Drive, extending out from the Project Site into residential or commercial districts.

Phase I Site

The Phase I Site is bound by I-380, Cherry Avenue, and Bayhill Drive. Grundy Lane bisects the Phase I Site. Existing transportation conditions on the Phase I Site are the same as described for the Project Site above.

3.10.2 Environmental Impacts

This section describes the impact analysis related to transportation and traffic for the Project, describing the methods used to determine the impacts of the Project and listing the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, as applicable.

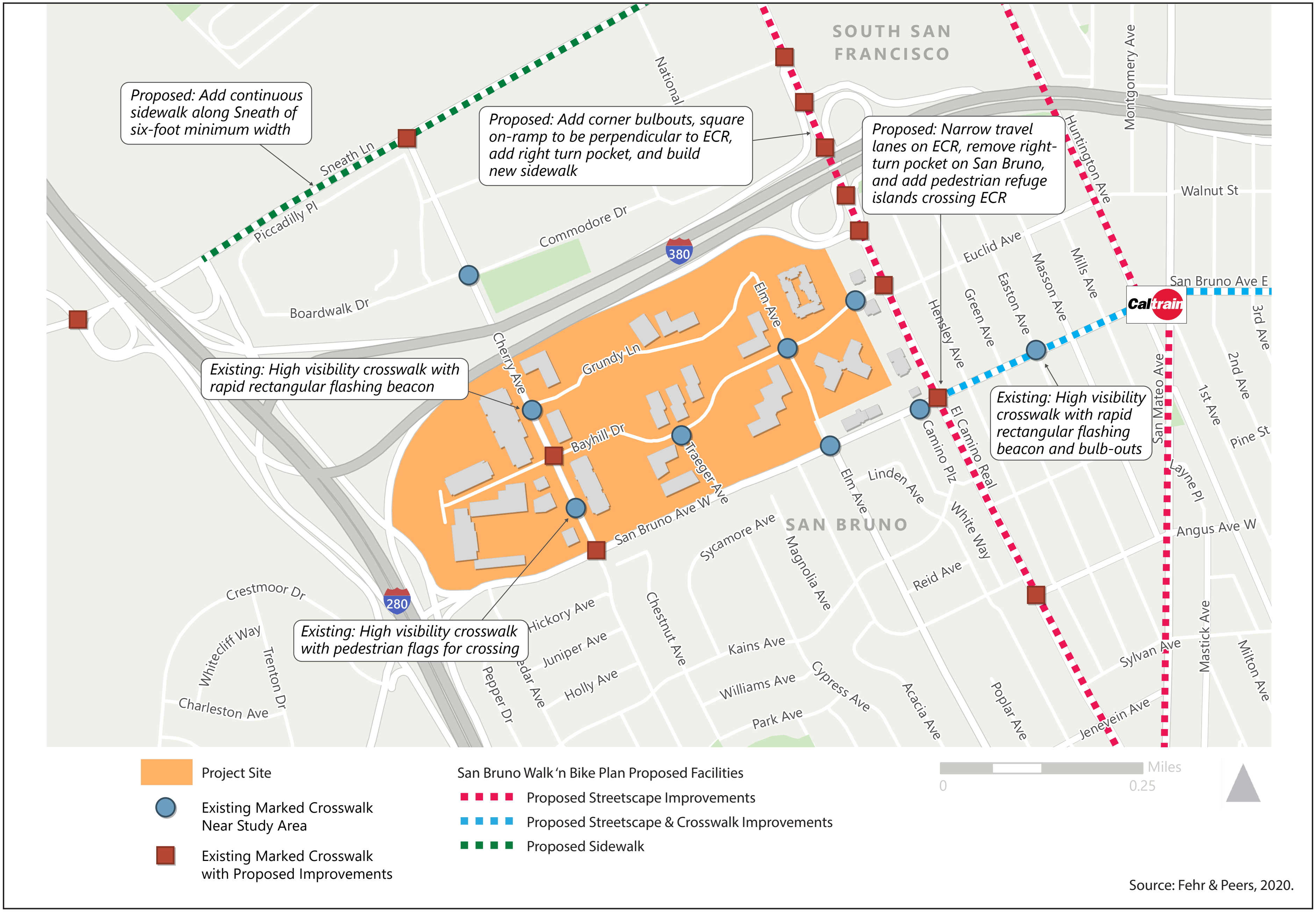

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Figure 3.10-3
Existing and Proposed Pedestrian Network

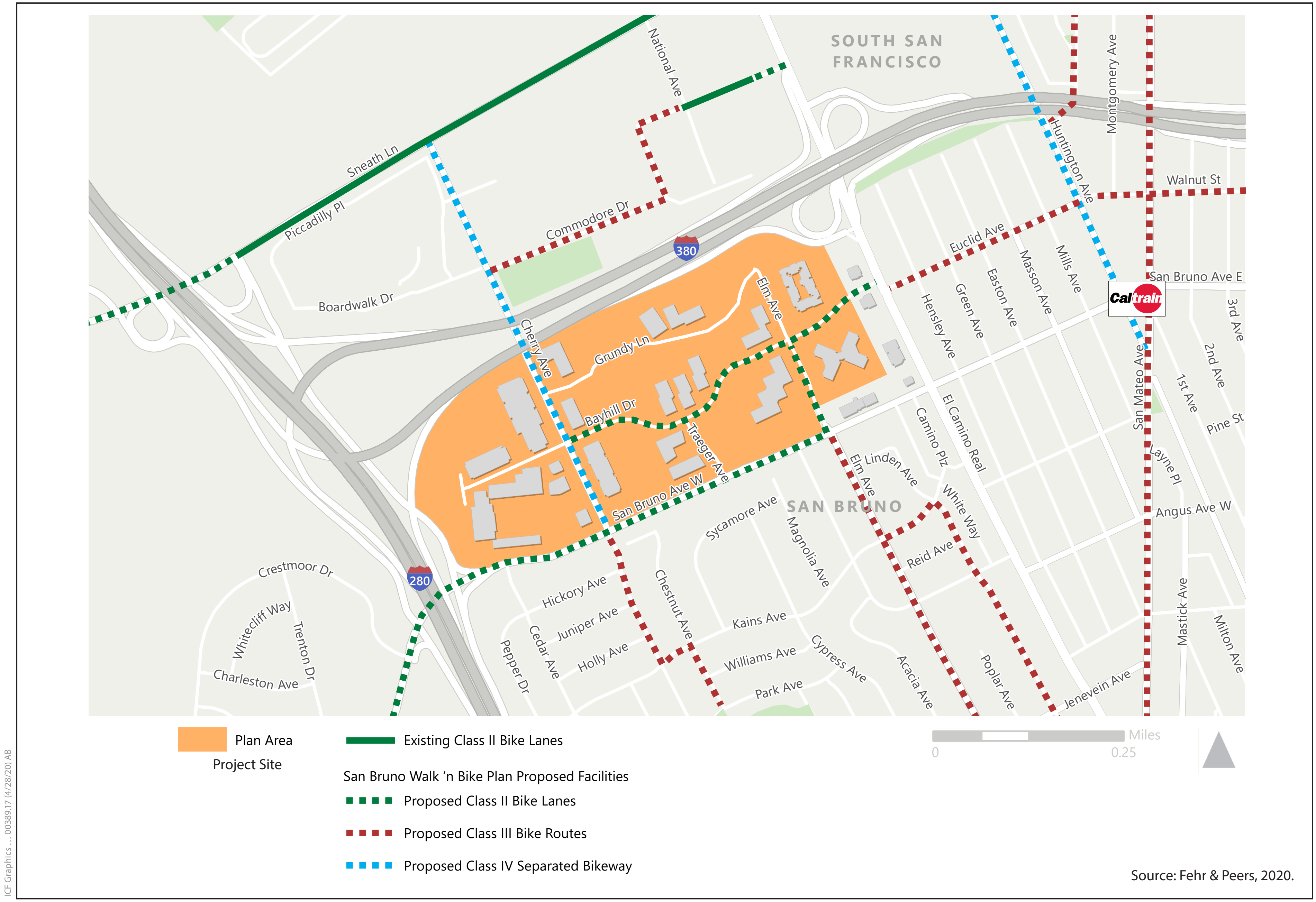

Figure 3.10-4
Existing and Proposed Bicycle Network

3.10.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines and local guidance, the Specific Plan would have the potential to have a significant effect if it would result in any of the conditions listed below. These criteria are described in more detail in the following sections.

- Inadequate access during construction.
- Conflict or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT.
- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- Inadequate pedestrian or bicycle facilities to connect to the area circulation system.
- Substantial increase in transit riders that could not be adequately served by existing transit services.
- Substantial increase in hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Potential to cause inadequate emergency access.

3.10.2.2 Methodology and Approach

Vehicle Miles Traveled Analysis

As discussed above, SB 743 and the resulting CEQA Guidelines update completed in early 2019 replace the use of LOS for determining transportation impacts with an evaluation of VMT. This EIR incorporates this change and uses VMT findings to make impact determinations later in this document.

VMT Forecast Methodology

VMT forecasts are prepared for this EIR using a regional travel model that incorporates the regional roadway network and land use profile as inputs. Different land use inputs are used to represent existing conditions and projected 2040 conditions, as described in the latest RTP/SCS (i.e., Plan Bay Area 2040). CMP legislation requires that the San Mateo C/CAG, as the Congestion Management Agency for San Mateo County, develop and maintain a countywide travel demand model. This analysis uses the San Mateo C/CAG Model[3] because it is optimized for San Mateo County while still accounting for transportation impacts from neighboring counties and regional commute sheds by building off the regional MTC travel demand model. Because VMT thresholds are tied to the region-wide average, a travel forecasting model creates a strong consistency between the threshold setting and Project analysis.

VMT is calculated by multiplying the number of trips generated by a project by the total distance of each of those trips. This is typically evaluated for the sum of the lengths of all daily weekday trips and can be reported as Total VMT or as an efficiency metric, such as VMT per Service Population (the sum of the population served by the Project including employees, residents, and visitors). Both VMT metrics were produced for this EIR.

[3] At the time the analysis was completed, the 2013 San Mateo C/CAG model was the most recent base year model available. For this reason, the "existing" year outputs correspond to base year 2013. All land uses on the Project Site were updated within the model to reflect conditions at the time the analysis was completed in 2017.

Total VMT is the amount of VMT generated by the Project. For purposes of this analysis, the Total VMT is presented as:

1. The total weekday VMT generated by the Project
2. The net difference in weekday VMT as a result of the Project
3. The net difference in weekday VMT grouped by speed intervals (e.g., 0–5 miles per hour, 5–10 miles per hour, 10–15 miles per hour). This information was extracted from the San Mateo C/CAG model and was used to complete the air quality and GHG impact analysis.

The *net difference* or *Project Effect* was isolated by subtracting the No Project scenario from the Plus Project scenario.

Service Population is the Total VMT represented as a per-capita metric.[4] Service Population was selected as the unit of standardization in this instance (as opposed to employee, resident, or visitor) because the Project is a mixed-use project. The per-capita metric is standardized based upon the number of people a project serves, which allows for comparison to a regional average VMT per Service Population in a way that Total VMT cannot be compared. For this reason, VMT per Service Population (rather than Total VMT) is used for the transportation impact determinations in this EIR.

VMT Significance Threshold

VMT significance thresholds were based on two resources: the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) and CARB's review of OPR's guidelines.

OPR suggests thresholds for individual land use types but does not suggest a single threshold for mixed-use projects. Specifically, OPR suggests using the regional average VMT per Employee to benchmark an office project's VMT performance. It states that VMT per Employee for a proposed office project should be a minimum of 15 percent below the existing regional average VMT per Employee to remain less than significant. While the Specific Plan primarily allows for office development, the Specific Plan Area is a multi-use project; therefore, direct application of OPR's threshold to office uses may not fully capture the effect of the Project on its surrounding environment. To capture the additional uses and for consistency with the air quality, energy, and GHG assessments, this EIR calculates Total VMT and applies a transportation threshold based upon VMT per Service Population.

CARB's review of OPR's recommendations indicates that 15 percent below existing regional VMT per capita may not be sufficient to reach statewide GHG reduction targets (CARB 2019).[5] Applying California Department of Finance population forecasts, CARB finds per-capita vehicle travel would need to be approximately 16.8 percent lower than existing to be consistent with State climate goals. The 15 and 16.8 percent thresholds are for light-duty vehicles only. For all vehicle types, including heavy-duty vehicles,

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[4] To calculate the Project-generated VMT, a select zone analysis was performed for the Project's transportation analysis zone. This type of analysis isolates all the trips with at least one trip origin or end at the transportation analysis zone and organizes the trips into an origin-destination trip matrix format. These trips are then multiplied by trip lengths between each origin-destination pair based upon the final model trip assignment representing congested travel times, speeds, and costs. The trip lengths are also reported in an origin-destination matrix format and the two matrices are multiplied to estimate VMT. The Project-generated total VMT per Service Population is the difference in the transportation analysis zone VMT estimate between the No Project and Plus Project model runs divided by the Project population plus employment (and any other trip-generating populations such as students or visitors).

[5] CARB estimated the reduction amounts of 14.3 percent (for Total VMT) and 16.8 percent (for light-duty vehicles) are for the reduction in per-capita VMT by 2050, compared to the 2015 to 2018 average as the amount of VMT reduction needed to meet long-term GHG emission reductions in combination with vehicle efficiency and transportation fuel decarbonization measures.

such as buses and trucks, CARB finds that per-capita vehicle travel would need to be approximately 14.3 percent lower than existing. The percentage reduction needed for all vehicles is lower than 15 percent because the pool of relevant vehicles is much larger, and it is more difficult to reduce heavy-duty vehicle VMT for activities like freight and deliveries than it is to reduce light-duty vehicle VMT. OPR does not set an all-vehicle goal comparable to CARB's.

Because the Project would involve the use of buses and trucks as well as cars, the City selected CARB's overall VMT per Service Population threshold of 14.3 percent reduction compared to the current regional (nine-county Bay Area) average.[6] Table 3.10-4, below, presents existing VMT for the region and the 14.3-percent reduction set for the Project's thresholds. Based upon the table below, the Project would result in a significant impact if the average VMT per Service Population is greater than 21.7 miles.

Table 3.10-4. Existing VMT and Significance Threshold

Scenario	Existing Total VMT	Existing VMT per Service Population	14.3% Reduction Threshold
Existing Regional VMT	274,546,565	25.3	21.7

Source: San Mateo C/CAG-VTA Travel Demand Model
Notes: VMT calculations account for all VMT including both light-duty and heavy-duty vehicles.

Freeway Intersection Queue Analysis

Although intersection operation is not used as an impact criterion in this analysis besides the San Mateo C/CAG's CMP analysis, queue analysis was performed to evaluate the possibility of hazardous operations at freeway off-ramp termini intersections near the Project Site as a result of Project conditions. The queue analysis was completed for all study scenarios described in Table 3.10-1 (except Cumulative + Phase I Development) at the following off-ramp intersections:

1. I-280 southbound ramps/San Bruno Avenue
2. I-280 northbound ramps/San Bruno Avenue
3. I-380 eastbound/El Camino Real
4. I-380 westbound/El Camino Real

This analysis is in keeping with San Bruno General Plan Policy T-A, "Provide for efficient, safe, and pleasant movement for all transportation modes," and is used in impact determinations later in the document.

Queue Methodology

Synchro software was used to evaluate the Project's impact on queue lengths at off-ramp termini intersections to understand if the Project would cause substantial queueing that would extend beyond the available ramp storage length. The Project's impact was evaluated using 95th percentile queues. The 95th percentile queue represents a queue length that has a 5 percent probability of being exceeded during the analysis time period. Therefore, the 95th percentile represents a more conservative queue length, greater than typical or average conditions.

[6] The "current" Bay Area average was extracted from the 2013 San Mateo C/CAG model, which was the most recent existing year model available at the time of analysis.

Freeway Ramp Queue Significance Thresholds

The City of San Bruno does not include significance criteria related to ramp termini intersection queues. For the purpose of this analysis, the Project would result in a "dangerous condition" and a significant impact if the addition of the Project would extend the line of traffic exiting the freeway beyond the available storage capacity of the off-ramp under the 95th percentile queue, such that it would spill back onto the mainline freeway and cause a hazardous condition. If the No Project scenario results in a queue length beyond the available storage length, the Project would result in a significant impact if it extends the queue by any additional length.

Trip Generation and Distribution

Buildout Scenario

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses. The Specific Plan would also establish housing and mixed-use overlay zones on a total of 20.5 acres in the southern portion of the Project Site that would allow for the development of up to 573 multifamily residential units. Office uses would continue to be allowed in the housing and mixed-use overlay zones, and a mix of both use types could be developed as long as the maximum permitted density is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multifamily residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed. Each section within Chapter 3, *Environmental Impact Analysis*, of this EIR analyzes the buildout scenario that represents the worst-case scenario for the resource area being analyzed, i.e., the scenario with the greatest potential to result in significant impacts.

The Phase I Development includes construction of new office uses, as well as demolition of existing office uses in the middle northern section of the site bounded by I-380, Cherry Avenue, and Bayhill Drive. Net new office land use is approximately 301,476 square feet under Phase I buildout.

Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates are created for the peak 1-hour periods during the morning and evening commute periods, when traffic volumes on the adjacent streets are the highest, as well as for daily totals.[7]

[7] For all alternatives, trip generation was estimated using a combination of rates from the *Institute of Transportation Engineers Trip Generation Manual (10th Edition)*. The trip generation estimates were further refined through a platform developed by Fehr & Peers known as MainStreet. MainStreet is based upon MXD methodology, developed for and approved by the U.S. Environmental Protection Agency for use in evaluating trip generation at mixed-use projects. The primary difference between the Institute of Transportation Engineers and MXD methodologies is that the traditional Institute of Transportation Engineers methodology relies on one factor—the project's land use type—to predict vehicle trip generation, while MXD incorporates local data and travel behaviors, as well as leading research in how density, mix of land uses, and other built environment factors affect vehicle trip generation. Overall, the MainStreet analysis shows that Institute of Transportation Engineers trip rates, without adjustments for internalization and mode share, would overestimate vehicle trips generated at this site by up to 25 percent.

Trip generation estimates do not account for the TDM programs proposed for or currently in place (e.g., private shuttle buses) at the Project Site. This is because TDM programs are not permanent in the same way as built environment factors and land use diversity, and instead are tied to particular tenants, who often turn over during the life of a project. For this reason, the estimated trips presented in this analysis do not account for TDM strategies. The trip generation forecasts do, however, account for internalization, the use of transit, walking, and biking that might occur without TDM programs given the surrounding land use and transportation context. Without TDM programs in place, approximately 9 percent of daily Project Site trips and somewhere between 12 and 14 percent of peak-hour trips are expected to be completed by walking, biking, or transit.

Table 3.10-5, below, summarizes the daily, weekday AM peak-hour, and weekday PM peak-hour vehicle trip generation for each buildout scenario and Phase I Development. Typically, the AM peak hour falls within the AM peak period of 7:00 a.m. to 9:00 a.m. The PM peak hour typically falls within the PM peak period of 4:00 p.m. to 6:00 p.m. These trip generation estimates account for all uses within the Project Site including the shopping center retail uses, which explains most of the outgoing trips in the morning and incoming trips in the afternoon/evening.

Table 3.10-5. Vehicle Trip Generation by Buildout Scenario

		AM Peak Hour			PM Peak Hour		
Scenario	**Daily**	**Total**	**In**	**Out**	**Total**	**In**	**Out**
Maximum Office Scenario Area Total	**41,480**	**3,360**	**2,780**	580	**3,990**	910	**3,080**
Maximum Housing Scenario Area Total	40,140	3,190	2,560	**630**	3,830	**960**	2,870
Phase I Development Only[a]	4,040	380	330	50	420	70	350

Source: ITE Trip Generation Manual 10th Edition and Fehr & Peers MainStreet with MXD+

Notes: **Bold** text = highest trip-generating scenario.

[a] Phase I Development trips are only trips associated with the new buildings constructed as part of Phase I Development whereas the Maximum Office Scenario and Maximum Housing Scenario trips represent all trips associated with the Project Site, including both new and pre-existing uses. Analysis of Phase I Development assumes no demolition of the "Lakes" buildings; as a result, the findings are likely more conservative than if the analysis had included the reduction in employee trips associated with the "Lakes" buildings.

As shown in Table 3.10-5, above, the Maximum Office Scenario is expected to generate approximately 3,400 AM peak-hour vehicle trips and 4,000 PM peak-hour vehicle trips. The Maximum Housing Scenario is expected to generate fewer AM and PM peak-hour trips at 3,200 trips and 3,800 trips, respectively. The Phase I Development is expected to generate 380 new AM peak-hour vehicle trips and 420 new PM peak-hour vehicle trips. Peak-hour trip generation is less than the total number of employees and visitors expected with the Project due to internalization of trips; some portion of trips being completed by walk, bike, and transit; and the fact that not all employees travel to the office everyday (e.g., due to sick leave, vacation, offsite meetings). Additionally, some employees arrive and leave outside of the peak hour windows shown above.

Trip Distribution

Project trips were distributed throughout the transportation network based upon the trip distribution assumptions. Trip distribution assumptions were based upon the San Mateo C/CAG Travel Demand Model regional distributions and locally available employee survey data. Transportation Appendix, Attachment D illustrates the trip distribution assumptions, as well as the AM and PM peak-hour intersection turning movement counts for each EIR Project scenario.

As shown in Table 3.10-5, above, the Maximum Office Scenario would generate the most trips in each time period. This is in part due to higher trip generation rates for office uses than for residential uses and in part due to the higher rates of internalization achieved by a greater mix of uses under the Maximum Housing Scenario. Peak-hour trip generation is important when evaluating impacts on local intersection operation, pedestrian and bicycle comfort, and transit capacity. The Maximum Office Scenario has the highest peak-hour trip generation and is therefore the worst-case scenario from a local intersection operation, pedestrian and bicycle comfort, and transit-capacity standpoint.

An understanding of both trip generation and trip lengths is critical to identify the worst-case scenario for evaluating VMT. In this case, the worst-case trip-generation scenario is also the worst-case trip-length scenario. Work-based trips are significantly longer, on average, than home-based trips. This is true for all geographic scales relevant to the Project, as shown in Table 3.10-6, below. Trips between home and work are approximately twice as long as trips made between home and other destinations for activities, such as shopping, recreation, or visiting friends and family. Although some residents in the Maximum Housing Scenario would travel to work, not all residents would work, and many may work locally, given the high jobs-to-housing ratio in San Mateo County.[8]

Table 3.10-6. Vehicle Trip Length by Trip Type

	Average Vehicle Trip Length per Capita (miles)	
Geography	**Home-Based Other Trips**	**Home-Based Work Trips**
City of San Bruno	4.1	10.2
San Mateo County	5.5	10.1
Bay Area	5.7	11.5

Source: California Household Travel Survey 2010–2012

Cumulative Forecast Approach

Cumulative forecasts were developed using the San Mateo C/CAG Travel Demand Model, the same model used to prepare the VMT analysis described above in the *Vehicle Miles Traveled Analysis* section. Cumulative vehicle volumes were determined by updating the San Mateo C/CAG cumulative model scenario to reflect the proposed Specific Plan land use and network changes. Network and land use detail were added where necessary. Cumulative intersection turn movement forecasts were developed by adding the growth in trips between model baseline and cumulative forecasts to existing count volumes.[9] Cumulative land uses were reviewed to confirm consistency with the proposed land uses in Plan Bay Area 2040, the City of San Bruno General Plan, and the Transit Corridors Plan.

VMT Analysis Results

The VMT analysis was prepared using the methodology and approach described above in the *Cumulative Forecast Approach* section. Table 3.10-7, below, presents the existing and cumulative year Total VMT under each study scenario. Table 3.10-8, to follow, presents the existing and cumulative year VMT per

[8] Between 2010 and 2016, 80,000 new jobs were created, but permits were only issued for 8,000 new homes, i.e., one home approved for every 10 jobs created (Caltrans 2017).

[9] This can be done several ways, as defined in the National Cooperative Highway Research Program Report 255: Highway Traffic Data for Urbanized Area Project Planning and Design, Transportation Research Board (December 1982). For the purpose of this assessment, the difference method was applied.

Service Population under each study scenario. Transportation Appendix, Attachment A details the Total VMT results by speed intervals.

Both Total VMT and VMT per Service Population decrease under cumulative conditions, when compared to existing conditions. This is as a result of changing land use and transportation patterns surrounding the Project Site. Plan Bay Area 2040, the San Bruno General Plan, and the Transit Corridors Plan are all assumed to be in place under cumulative conditions. Plan Bay Area 2040 projects significant housing development in San Mateo County, with the greatest density planned around transit corridors, such as Caltrain, BART, and El Camino Real. This development pattern means that commute trip lengths to the Project Site will be shorter than they are today, and some will be able to shift from auto to transit use. At a local level, the Transit Corridors Plan will add significant mixed-use density between the Project Site, Caltrain, and downtown San Bruno, increase train service levels for Caltrain and BART, and improve bus service on El Camino Real. These changes will also lead to more walking and biking trips between the Project Site and surrounding neighborhoods for commute purposes, personal errands, and shopping trips. These changes would occur around the Project, while the Project description remains consistent between the existing and cumulative scenarios. Although the Specific Plan ~~Project description~~ includes a TDM requirement, tenant-specific TDM strategies ~~TDM programs~~ are not permanent in the same way as built environment factors and land use diversity and ~~instead are tied to tenants, who often~~ their effectiveness can vary as tenants turn over during the life of a project. For this reason, the estimated net new trips presented in this analysis do not account for TDM reductions to VMT.

Table 3.10-7. Project Site VMT

	Project Site Total VMT			Project Added Total VMT	
Scenarios	**No Project[a]**	**Project[b]**	**Phase I Development**	**Project**	**Phase I Development**
Existing Conditions	97,163	356,588	153,039	259,425	55,876
Cumulative Conditions	94,305	338,248	148,371	243,943	54,066

Source: San Mateo 2019

[a] The analysis assumes the existing land use program under No Project conditions.

[b] The Project is defined as the Maximum Office Scenario.

Table 3.10-8. Project VMT per Service Population

	Project Site VMT			Project-Generated VMT		
Scenarios	**No Project[a]**	**Project[b]**	**Phase I Development**	**Project VMT Threshold**	**Project**	**Phase I Development**
Existing Conditions	37.5	29.9	35.2	21.7	27.8	31.8
Cumulative Conditions	36.2	28.3	34.0	21.7	26.1	30.7

Source: San Mateo C/CAG 2019

[a] The analysis assumes the existing land use program under No Project conditions.

[b] The Project is defined as the Maximum Office Scenario.

Project

As described in the section above, the existing regional average daily VMT per Service Population is 25.3. Based upon the significance criteria, the Project would result in a significant impact if the Project generates a VMT per Service Population greater than 14.3 percent below the existing daily VMT per Service Population, or 21.7 VMT per Service Population.

Existing Conditions

As shown in Table 3.10-8, above, the existing VMT per Service Population for the Project transportation analysis zone is 37.5. The addition of the Project would decrease the VMT per Service Population to 29.9 (or approximately a 20-percent decrease). This is because the proposed increase in density associated with the Project provides more opportunity for transit, walk, and bike trips between all Project Site employees and adjacent residential and retail uses. While the Project would reduce the site's VMT per Service Population, the Project-generated VMT per Service Population would be 27.8, which exceeds the Project VMT threshold of 21.7. This impact is evaluated below under Impact TRA-5.

Cumulative Conditions

As shown in Table 3.10-8, above, the cumulative VMT per Service Population for the Project transportation analysis zone is 36.2, which is 3 percent lower than the existing VMT per Service Population. The decrease under cumulative conditions is associated with the planned land use changes, such as additional housing, and planned transportation infrastructure improvements, like the Caltrain Modernization Program. The addition of the Project would decrease the VMT per Service Population to 28.3 (or a 22-percent decrease). Like the decrease in VMT per Service Population under existing conditions, the addition of the Project would decrease the VMT per Service Population because the Project would diversify land uses and provide additional employment that would ultimately reduce the distance people need to travel for work. While the Project would decrease the VMT per Service Population, the Project-generated VMT per Service Population would be 26.1, which is above the 21.7 VMT per Service Population threshold. This impact is evaluated below under Impact C-TRA-1.

Phase I Development

The section below describes the VMT analysis results for the Phase I Development.

Existing Conditions

Similar to the Project's effect on existing conditions, the Phase I Development would decrease the VMT per Service Population from 37.5 to 35.2, an approximate 6-percent decrease. While the Phase I Development would reduce the site's VMT per Service Population, the Phase I Development–generated VMT per Service Population would be 31.8, which is above the threshold of 21.7. This impact is evaluated below under Impact TRA-5.

Cumulative Conditions

Cumulative conditions with Phase I Development operate similar to existing conditions with Phase I Development, where the addition of the Phase I Development would reduce the Phase I Development's VMT per Service Population from 36.2 to 34.0, about a 6-percent decrease in VMT per Service Population. While the Phase I Development would decrease the VMT per Service Population, the Phase I Development–generated VMT per Service Population would be 30.7, which is above the 21.7 VMT per Service Population threshold. This impact is evaluated below under Impact TRA-5.

Freeway Queue Analysis Results

Freeway queues at off-ramp termini intersections were evaluated to assess if the addition of the Project would result in a queue that exceeds the available storage length. Table 3.10-9, below, describes existing queue analysis results, and Table 3.10-10, to follow, describes cumulative queue analysis results.

Table 3.10-9. Existing Conditions: 95th Percentile Maximum Queue[a] Lengths (feet)

Intersection	Off-Ramp Movement[b]	Storage Capacity (feet)	Existing Conditions (No Project) (feet)	Existing Conditions + Project (feet)	Existing Conditions + Phase I Development (feet)
AM Peak Hour					
I-280 SB Ramps/San Bruno Ave[a]	SBL	3,700 (800)[c]	200	230	210
	SBT	3,700 (800)[c]	180	220	190
	SBR	3,700 (80)[c]	50	70	60
I-280 NB Ramps/San Bruno Ave[b]	NBL	1,300 (230)[d]	90	90	90
	NBT	1,300 (230)[d]	330	520	400
	NBR	1,300 (70)[d]	280	470	350
I-380 EB Ramps/El Camino Real	EBL	1,340	130	160	140
	EBR	1,340	90	150	110
I-380 WB Ramps/El Camino Real	WBL	560	250	400	300
	WBR	1,770	250	230	240
PM Peak Hour					
I-280 SB Ramps/San Bruno Ave	SBL	3,700 (800)[d]	150	160	160
	SBT	3,700 (800)[d]	90	90	90
	SBR	3,700 (80)[d]	50	50	50
I-280 NB Ramps/San Bruno Ave	NBL	1,300 (230)[d]	200	200	200
	NBT	1,300 (230)[d]	660	660	660
	NBR	1,300 (70)[d]	230	240	250
I-380 EB Ramps/El Camino Real	EBL	1,340	340	340	340
	EBR	1,340	250	270	250
I-380 WB Ramps/El Camino Real	WBL	560	300	320	320
	WBR	1,770	830	840	840

Source: Fehr & Peers 2019

Notes:

[a] The 95th percentile maximum queue represents the maximum back of queue with 95th percentile traffic volumes.

[b] Off-ramp movement refers to the direction of the off-ramp approach at each intersection and turn lane.
NB = northbound; SB = southbound, EB = eastbound, WB = westbound. L = left; T = through; R = right.

[c] The length reported in parentheses reflects the movement's pocket length; however, the actual available storage length is approximately 3,700 feet.

[d] The length reported in parentheses reflects the movement's pocket length; however, the actual available storage length is approximately 1,300 feet.

Table 3.10-10. Cumulative Conditions: 95th Percentile Maximum Queue[a] Lengths (feet)

Intersection	Off-Ramp Movement[b]	Storage Capacity (feet)	Cumulative Conditions (No Project) (feet)	Cumulative Conditions + Project (feet)
AM Peak Hour				
I-280 SB Ramps/San Bruno Ave	SBL	3,700 (800)[c]	220	250
	SBT	3,700 (800)[c]	200	240
	SBR	3,700 (80)[c]	60	70
I-280 NB Ramps/San Bruno Ave	NBL	1,300 (230)[d]	90	90
	NBT	1,300 (230)[d]	360	560
	NBR	1,300 (70)[d]	310	480
I-380 EB Ramps/El Camino Real	EBL	1,340	290	360
	EBR	1,340	250	270
I-380 WB Ramps/El Camino Real	WBL	560	240	510
	WBR	1,770	290	330
PM Peak Hour				
I-280 SB Ramps/San Bruno Ave	SBL	3,700 (800)[c]	190	190
	SBT	3,700 (800)[c]	160	160
	SBR	3,700 (80)[c]	115	120
I-280 NB Ramps/San Bruno Ave	NBL	1,300 (230)[d]	180	250
	NBT	1,300 (230)[d]	970	**1,340**
	NBR	1,300 (70)[d]	380	530
I-380 EB Ramps/El Camino Real	EBL	1,340	380	380
	EBR	1,340	330	330
I-380 WB Ramps/El Camino Real	WBL	560	270	270
	WBR	1,770	760	760

Source: Fehr & Peers 2019

Notes: Movements that exceed the available ramp storage capacity are shown in **bold**.

[a] The 95th percentile maximum queue represents the maximum back of queue with 95th percentile traffic volumes.

[b] Off-ramp movement refers to the direction of the off-ramp approach at each intersection and turn lane.
NB = northbound; SB = southbound, EB = eastbound, WB = westbound. L = left; T = through; R = right.

[c] The length reported in parentheses reflects the movement's pocket length; however, the actual available storage length is approximately 3,700 feet.

[d] The length reported in parentheses reflects the movement's pocket length; however, the actual available storage length is approximately 1,300 feet.

As described above, the Project would result in a significant impact if the addition of the Project would extend the queue beyond the available storage capacity under the 95th percentile queue, such that it would spill back onto the mainline freeway and cause a hazardous condition. If the No Project Scenario results in a queue length beyond the available storage length, the Project would result in a significant impact if it extends the 95th percentile queue by any length.

Project

Existing Conditions

As shown in Table 3.10-9, above, the addition of the Project would not result in a queue length beyond the available ramp storage capacity. This impact is evaluated below under Impact TRA-13.

Cumulative Conditions

As shown in Table 3.10-10, above, the addition of the Project would not result in a queue length beyond the available ramp storage capacity, with the exception of the I-280 northbound off-ramp and San Bruno Avenue intersection, where the expected maximum 95th percentile queue length would exceed the available storage capacity by approximately 40 feet during the PM peak hour. This impact is evaluated below under Impact C-TRA-9.

Phase I Development

Existing Conditions

As shown in Table 3.10-10, above, the addition of the Phase I Development would not result in a queue length beyond the available ramp storage capacity. This impact is evaluated below under Impact TRA-13.

3.10.2.3 Construction Impacts and Mitigation Measures

Impact TRA-1a. The Project would not result in substantial temporary impacts on the vehicular, transit, bicycle, and pedestrian networks from temporary road closures, relocations, and modifications as a result of construction (Project: Less Than Significant).

Impact TRA-1b. The Phase I Development would not result in substantial temporary impacts on the vehicular, transit, bicycle, and pedestrian networks from temporary road closures, relocations, and modifications as a result of construction (Phase I Development: Less Than Significant).

The Project would result in a significant impact if its construction would result in a long-term effect on the circulation network due to temporary road closures, relocations, and modifications.

Project

Potential construction impacts were assessed qualitatively, based upon preliminary construction information for the Project. Construction-related activities ~~would typically occur Monday through Friday, with limited construction activities outside of daytime hours or on weekends~~ would be subject to Section 6.16.070 of the San Bruno Municipal Code, subject to time of day and other restrictions pursuant to Mitigation Measure NOI-1 and project-specific conditions the City might require. Construction staging would typically occur within individual sites and outside of the public right-of-way. Even still, construction activity could result in temporary roadway and sidewalk closures, effects on roadway circulation due to construction trucks, an increase in vehicle trips and vehicular parking demand associated with construction workers, and relocation of bus stops and temporary transit detours. Temporary travel lane closures needed to make improvements to the internal street network would be coordinated with SamTrans, Commute.org, and the City to reduce impacts on local circulation operations. These types of construction-related transportation impacts would be temporary, generally short term, and conducted in accordance with City requirements. Additionally, Specific Plan Policy 4-12 requires all new developments to submit a Construction Management Plan prior to issuance of a demolition, grading, or building permit, which would outline traffic management strategies to reduce construction-related congestion and impediment of the existing roadway. Specific Plan Policy 4-13 requires that any pedestrian or bicycle facility closed or obstructed by construction activity be replaced with a convenient and accessible alternative. Therefore, construction-related road closures, relocations, and modifications associated with the Project would be ***less than significant.*** No mitigation measures are required.

Phase I Development

As described in Chapter 2, *Project Description*, of this EIR, Phase I Site preparation and construction would include demolition of three buildings on the adjacent Lakes parcel; excavation for the North Building, the South Building, and the portion of Grundy Lane between these two buildings; and construction of the North Building and South Building. All construction staging would take place outside of the public right-of-way, with the majority of staging occurring at the western end of the parking lot of the Lakes parcel. Overall, construction of the Phase I Development is anticipated to take approximately 2 years and 3 months. The impacts of the Phase I Development would be the same as those of the Specific Plan as a whole because construction-related transportation impacts would be temporary, generally short term, and conducted in accordance with City requirements. This includes completion of a Construction Management Plan detailing traffic routing and site access for properties along Grundy Lane. Grundy Lane is a minor street within the Project Site and although closure would be disruptive for properties with site access on Grundy Lane, closure would not prevent access to these sites. Therefore, construction-related road closures, relocations, and modifications associated with the Phase I Development would be ***less than significant.*** No mitigation measures are required.

Impact TRA-2a. Construction of the Project would not generate a substantial increase in transit riders that could not be adequately served by existing transit services (Project: Less Than Significant).

Impact TRA-2b. Construction of the Phase I Development would not generate a substantial increase in transit riders that could not be adequately served by existing transit services (Phase I Development: Less than Significant).

The Project would result in a significant impact related to transit capacity if it would lead to overcapacity of transit vehicles in the vicinity of the Project Site.

Project

In general, construction-related activities would typically occur Monday through Friday, with limited construction activities outside of daytime hours or on weekends. The number of construction workers on the Project Site would vary, ranging from approximately 40 to 550 on any given day, according to the stage of construction and whether construction phases are undertaken concurrently. Only a small proportion of these workers would be expected to arrive by public transit given the equipment demands and shift hours, which are offset from peak transit service, typical of construction work. Any construction workers who travel to the Project Site using public transit would likely do so during off-peak hours when transit has ample capacity to accommodate the additional load. For these reasons, construction-related transit capacity impacts associated with the Project would be ***less than significant.*** No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Project because Phase I Development construction worker estimates on a maximum activity day are consistent with those of the Project. Construction-related transit capacity impacts associated with the Phase I Development would be ***less than significant.*** No mitigation measures are required.

Impact TRA-3a. The Project would not result in substantially increased hazards because of a geometric design feature (e.g., sharp curves, dangerous intersections) or incompatible uses (e.g., farm equipment) as a result of temporary road closures, relocations, and modifications as a result of construction (Project: Less Than Significant).

Impact TRA-3b. The Phase I Development would not result in substantially increased hazards because of a geometric design feature (e.g., sharp curves, dangerous intersections) or incompatible uses (e.g., farm equipment) as a result of temporary road closures, relocations, and modifications as a result of construction (Phase I Development: Less Than Significant).

The Project would result in a significant impact if its construction would result in substantially increased hazards because of geometric design features due to temporary road closures, relocations, and modifications.

Project

As is typical of large construction efforts, the majority of construction staging would occur outside of the public right-of-way. In instances where this is not possible, accommodations would be made to remove potential hazards from the vehicular, bicycle, and pedestrian travel paths. Specific Plan Policy 4-12 requires Construction Management Plans to designate temporary pedestrian, bicycle, or transit facilities to replace those obstructed by construction activity. These pathways would be separate from bicycle or vehicle travel routes. For these reasons, construction-related geometric design impacts associated with the Project would be ***less than significant.*** No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan as a whole because most construction would occur outside of the travel way and adequate accommodation would be made for any pedestrian routes disrupted by construction. Construction-related geometric design impacts associated with the Phase I Development would be ***less than significant.*** No mitigation measures are required.

Impact TRA-4a. The construction of the Project would not cause inadequate emergency access (Project: Less Than Significant).

Impact TRA-4b. The construction of the Phase I Development would not cause inadequate emergency access (Phase I Development: Less Than Significant).

The Project would result in a significant impact if its construction would result in inadequate emergency access as a result of temporary road closures, relocations, and modifications.

Project

As is typical of large construction efforts, the majority of construction staging would occur outside of the public right-of-way. In instances where this is not possible, accommodations would be made to remove potential hazards from the vehicular, bicycle, and pedestrian travel paths. All future detailed construction plans would be required to undergo review by the San Bruno Fire Department before work begins. Additionally, Specific Plan Policy 4-12 requires all new developments to submit a Construction Management Plan, which would outline traffic management strategies to reduce the effect on emergency access. For these reasons, construction-related emergency access impacts associated with the Project would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan as a whole because most construction would occur outside of the emergency vehicle travel way and adequate emergency access to the construction sites, including the Lakes parcel staging site, is included in the construction plans for Phase I Development. Construction-related emergency access impacts associated with the Phase I Development would be ***less than significant.*** No mitigation measures are required.

3.10.2.4 Operational Impacts and Mitigation Measures

Impact TRA-5a. The Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT. (Project: Significant and Unavoidable).

Impact TRA-5b. The Phase I Development would be consistent with CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT (Phase I Development: Less Than Significant with Mitigation).

The Project would result in a significant impact related to CEQA Guidelines Section 15064.3, subdivision (b) if it would lead to VMT per Service Population higher than 14.3 percent below the existing regional average of 25.3 VMT per Service Population. This sets the threshold for Project-generated VMT per Service Population at 21.7 VMT. As discussed above under Section 3.10.2.2, *Methodology and Approach*, the Maximum Office Scenario is considered for this analysis because it would generate more and longer peak-hour trips than the Maximum Housing Scenario. This impact analyzes the Project's impact relative to planned growth on its own. The Project's contribution to potential cumulative impacts related to growth is assessed separately in Section 3.10.3, *Cumulative Impacts*.

Project

As presented in the *VMT Analysis Results* section above, the addition of the Project would reduce the Project Site's VMT per Service Population. However, the Project's effect on VMT per Service Population would be 27.8 VMT per Service Population, which exceeds the 21.7 VMT per Service Population threshold; therefore, the addition of the Project would result in a significant impact.

The VMT analysis results do not take into account any TDM efforts currently used by Project Site employers or recommended as part of the Specific Plan. This is because neither the continuation of existing efforts nor the successful implementation of new programs is guaranteed in the timeframe expected to build out the Specific Plan in its entirety. The Specific Plan sets a policy around the VMT threshold of 21.7 VMT per Capita for net new development in the Plan Area. This equates to a single-occupancy vehicle (SOV) mode share goal of no more than 43 percent. The Plan requires all project applicants to achieve the 21.7 VMT per Capita threshold or 43 percent SOV target unless another target is agreed upon in the conditions of approval. Calculations documenting how a 43 percent SOV mode share would bring VMT below the Project threshold are provided in Transportation Appendix, pages 6–11. The Specific Plan provides a list of TDM programs and services,[10] but developers and property managers may tailor their own list of measures to fit their unique workforce culture and schedule. In the near term, before buildout of the Transit Corridors Plan, it may be challenging to reliably achieve 21.7 VMT per Capita

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[10] The Specific Plan approach to TDM considered all CAPCOA VMT reduction strategies in *Quantifying Greenhouse Gas Mitigation Measures* (2010).

or an SOV mode share of no more than 43 percent. Even with TDM implementation, a standard employer or property manager may struggle to consistently reduce the Project's effect on VMT per Capita to a less-than-significant level. The VMT reduction required to address the difference between the VMT threshold and the Project-generated VMT under Existing Plus Project conditions is greater than can be accomplished by some employers given the resources required for major shuttle programs, transit subsidies, etc.

YouTube operates a robust TDM program today that, if maintained at its current levels over time, would result in VMT levels below the significance threshold, thereby reducing the impact to less than significant with mitigation.[11] There is no guarantee, however, that YouTube would be the primary tenant in the buildout time frame, and the large-scale TDM program required to mitigate the VMT impact could be too great for a standard tenant to achieve. **Mitigation Measure TRA-1** would require new land use applicants to submit a TDM program in conjunction with the development application that would, over time, achieve the Plan's VMT per Capita threshold. <u>The 21.7 VMT per Service Population threshold equates to no more than 43 percent of trips occurring by single-occupancy vehicles (SOV).</u> Acknowledging reasonable limitations on near-term TDM program success, program expectations may be less stringent for an initial occupancy period but would become more stringent over time and would ultimately require each employer or property manager to meet the VMT per Capita threshold or associated drive-alone goal. With implementation of **Mitigation Measure TRA-1**, alternative modes would be encouraged, the use of single-occupant vehicles would be discouraged, and the impact of additional vehicles generated by the Project would be lessened. However, to reduce the Project's impact to a less-than-significant level (less than 21.7 VMT per Service Population), the Project would need to reduce its addition of VMT by an additional 23 percent through TDM programs. Studies indicate that implementation of a typical TDM program for office uses, in communities with similar transportation and land use context to San Bruno, would result in a VMT reduction of approximately 10 to 15 percent (CAPCOA 2010). Therefore, even with mitigation, it is unlikely that the Project can achieve 21.7 VMT per Service Population under Existing Plus Project conditions. As a result, the VMT impacts associated with the Project would be ***significant and unavoidable***.

Phase I Development

As presented in the *VMT Analysis Results* section above, the Phase I Development's effect on VMT per Service Population would result in 31.8 VMT per Service Population. This is approximately 50 percent above the 21.7 VMT per Service Population threshold and, therefore, constitutes a significant impact.

Phase I Development is composed entirely of YouTube-owned parcels, and all trip generation associated with Phase I Development would be YouTube generated. YouTube operates a robust TDM program today that, if implemented during Phase I Development, would bring VMT levels below the 21.7 VMT per Service Population CEQA threshold. TDM performance is dependent on multiple factors outside of City and even employer control such as gas prices, housing stock availability and prices, and larger economic trends. For this reason, TDM-related VMT reductions cannot be guaranteed outright, but they can be included as a mitigation measure tied to ongoing monitoring and refinement. **Mitigation Measure TRA-2** would require YouTube to implement a TDM program resulting in a maximum SOV mode share of 43 percent or VMT per Capita levels in compliance with the Project threshold of 21.7 (see Transportation Appendix, pages 6–11). YouTube has demonstrated its ability to achieve this reduction through its annual monitoring report from the last 2 years, which shows an SOV mode share of less than 43 percent. Given YouTube's demonstrated ability to meet the required SOV mode share target, it is reasonable to conclude

[11] Two consecutive years of survey data (2017–2018) from YouTube employees shows that their SOV mode share at the Project Site is between 42 and 43 percent.

that the Phase I Development would meet the 21.7 VMT per Service Population CEQA threshold; therefore, VMT impacts associated with the Phase I Development would result in a ***less-than-significant impact with mitigation.***

Mitigation Measures

Mitigation Measure TRA-1 (Project not including Phase I Development): Prepare and Implement TDM Program.

Property owners of new development within the Specific Plan, not including the Phase I Development, will prepare and implement a TDM program, as denoted in Specific Plan Policies TDM 4-9 through TDM 4-11. The TDM program will require a TDM coordinator who will facilitate programming and monitoring activities. ~~The TDM coordinator would be responsible for collecting annual VMT data for the building(s) and reporting the findings to the City. Property owners or tenants must contribute their fair share to the cost of the monitoring and reporting activity.~~

New land use applicants must submit a TDM program in conjunction with the development application that will, over time, achieve the Plan's VMT per Capita threshold. The VMT threshold equates to no more than 43 percent of trips occurring by single-occupancy vehicles and SOV mode share can be used as an alternative monitoring metric. ~~TDM reduction goals will be applicant- or property-manager-specific and will be agreed upon as part of the conditions of approval.~~ TDM Program approvals will strive for the VMT per Capita threshold but acknowledge reasonable limitations on TDM program success due to surrounding transportation and land use context in the near-term. ~~Program expectations may be less stringent for an initial occupancy period but will become more stringent over time and will ultimately require each employer or property manager to meet the VMT per Capita threshold or associated drive-alone goal.~~

~~A report, documenting the TDM activities undertaken and their results, shall be submitted to the Community and Economic Development Director. Program success will be measured through a combination of VMT measurements and vehicle occupancy surveys, both of which will capture vehicle trips associated solely with net new development. Alternatively, tenants or employers have the option to monitor mode split for their site and report the results in relation to the 43 percent drive-alone threshold. Either option should account for all vehicle trips (employee, visitor, services, etc.) associated with the site. Monitoring will be required after a three-year grace period and on an annual basis thereafter. Monitoring will continue until the property manager or employer can demonstrate five consecutive years (or some other monitoring horizon agreed upon in the conditions of approval) of VMT threshold compliance for the newly occupied site.~~

~~If tenants exceed the selected threshold (the 21.7 VMT per capita threshold or the 43 percent drive-alone goal) in any given year, the tenant or employer must adjust their TDM program and pay a fine assessed on either a per trip basis or based on the amount by which they exceed either the VMT per Capita or drive-alone threshold. The Community and Economic Development Director or designee shall evaluate the overall effectiveness of all of the TDM activities and may suggest new or modified activities or substitute activities to meet the program's objectives. The Community and Economic Development Director or designee may impose reasonable changes to assure the program's objectives will be met.~~ A Bayhill VMT Monitoring and Mitigation Plan will be prepared and periodically updated to explain the details of the monitoring and mitigation requirements. If thresholds are not met, the City will collect mitigation payments, which ~~Fines~~ will be used to fund City-initiated projects and programs that reduce the SOV mode share trip rate such as bike and pedestrian network improvements, first-/last-mile shuttle services to regional transit stations, and marketing campaigns.

Mitigation Measure TRA-2 (Phase I Development only): Monitor and Evaluate Existing TDM Program.

The Phase I Development applicant will be required to complete and submit to the City of San Bruno an annual monitoring study that demonstrates a 21.7 vehicle miles traveled (VMT) per Capita threshold or a single occupancy vehicle (SOV) mode share of no more than 43 percent for the new Phase I Development buildings~~, after a 3-year implementation grace period~~. A Bayhill VMT Monitoring and Mitigation Plan will be prepared and periodically updated to explain the details of the monitoring and mitigation requirements. If thresholds are not met, the City will collect mitigation payments, which ~~If the Phase I Development applicant exceeds the metric selected (VMT cap or SOV rate), the applicant must adjust their TDM program and pay a fine assessed on either a per trip basis or based on the amount by which they exceed either the VMT per Capita or drive-alone threshold. The Community and Economic Development Director or designee shall evaluate the overall effectiveness of all of the TDM activities and may suggest new or modified activities or substitute activities to meet the program's objectives. The Community and Economic Development Director or designee may impose reasonable changes to assure the program's objectives will be met. Fines~~ will be used to fund City-initiated projects and programs that reduce the SOV mode share trip rate such as bike and pedestrian network improvements, first-/last-mile shuttle services to regional transit stations, and marketing campaigns.

Impact TRA-6a. The Project would not conflict with a program, plan, ordinance, or policy addressing the roadway circulation system (Project: Less Than Significant).

Impact TRA-6b. The Phase I Development would not conflict with a program, plan, ordinance, or policy addressing the roadway circulation system (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to the roadway circulation system if it would conflict with the intent of an existing program, plan, ordinance, or policy applicable to the Project Site. This impact analyzes the Project's impact relative to planned growth on its own. The Project's contribution to potential cumulative impacts related to growth is assessed separately in Section 3.10.3, *Cumulative Impacts*.

Project

The Project would increase vehicle traffic on roadway facilities in the vicinity of the Project Site. The San Bruno General Plan and the San Mateo C/CAG CMP establish LOS standards. Under Existing Plus Project conditions, all intersections would perform within acceptable LOS thresholds established by the San Bruno General Plan and the San Mateo C/CAG CMP. Per CEQA Guidelines Section 15064.3 (b) and CEQA Statute Section 21099 (b) (2), LOS is not used as CEQA impact criteria in this EIR but is still being used for planning purposes. An intersection LOS and delay assessment was completed as a planning exercise for the Specific Plan but, for the reason cited above, the results are not evaluated in this EIR and policies relating to LOS are not considered as part of the policy consistency evaluation. Summary results are included in Appendix 3.10-1 for informational purposes only.

The Project would not interfere with existing or planned roadway facilities. It would not conflict with currently adopted goals or policies (see Section 3.10.1.1, *Regulatory Setting*), and the Specific Plan's street network changes are in keeping with existing plans and policies. Therefore, the Project's impact on roadway facilities would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan as a whole because any changes to roadway facilities within the Phase I Site are included within those reviewed as part of the Specific Plan, above. Therefore, the Phase I Development impact on roadway facilities would be ***less than significant***. No mitigation measures are required.

Impact TRA-7a. The Project would not conflict with a program, plan, ordinance, or policy addressing the transit circulation system (Project: Less Than Significant).

Impact TRA-7b. The Phase I Development would not conflict with a program, plan, ordinance, or policy addressing the transit circulation system (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to the transit circulation system if it would conflict with the intent of an existing program, plan, ordinance, or policy applicable to the Project Site.

Project

The Project would not interfere with existing or planned transit service. Specific Plan Policy 4-6 requires enhancement of existing and planned transit stop infrastructure in the plan area. Any changes to existing transit stops along Cherry Avenue or San Bruno Avenue would be made in consultation with the City, SamTrans, and Commute.org such that redesigned transit stops would align with agency and City goals and standards. Therefore, the Project's impact on the transit circulation system would be ***less than significant***. No mitigation measures are required.

Phase I Development

Phase I Development would not interfere with existing or planned transit service or transit stops. Therefore, the Phase I Development's impact on the transit system would be ***less than significant***. No mitigation measures are required.

Impact TRA-8a. The Project would not conflict with a program, plan, ordinance, or policy addressing the bicycle circulation system (Project: Less Than Significant).

Impact TRA-8b. The Phase I Development would not conflict with a program, plan, ordinance, or policy addressing the bicycle circulation system (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to the bicycle circulation system if it would conflict with the intent of an existing program, plan, ordinance, or policy applicable to the Project Site.

Project

There are several bicycle facilities in the Project vicinity, and several planned as part of the Specific Plan. The Project would increase the demand on bicycle facilities in the vicinity of the Project Site. As described in Section 3.10.1.1, *Regulatory Setting*, above, the City adopted the Walk 'N Bike Plan to facilitate increased bicycling to local destinations in San Bruno. Although some of the facilities proposed in the Walk 'N Bike Plan are different from those contained in the Project, there is nothing in the Specific Plan that would interfere with implementation of the facilities proposed in the Walk 'N Bike Plan at a future date.

Moreover, the facilities proposed as part of the Specific Plan, while not an exact match to those in the Walk 'N Bike Plan, would collectively meet the overall intent of those in the citywide plan and provide bicycle facilities on all of the streets identified for improvements in the Walk 'N Bike Plan.

The Project would not conflict with currently adopted goals or policies. Additionally, the Specific Plan includes improved bicycle facilities with direct and efficient access to the Plan Area. Therefore, the Project's impact on bicycle facilities would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan because any changes to bicycle facilities within the Phase I Site are included within those reviewed as part of the Specific Plan. Therefore, the Phase I Development's impact on bicycle facilities would be ***less than significant***. No mitigation measures are required.

Impact TRA-9a. The Project would not conflict with a program, plan, ordinance, or policy addressing the pedestrian circulation system (Project: Less Than Significant).

Impact TRA-9b. The Phase I Development would not conflict with a program, plan, ordinance, or policy addressing the pedestrian circulation system (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to the pedestrian circulation system if it would conflict with the intent of an existing program, plan, ordinance, or policy applicable to the Project Site.

Project

The Project would increase pedestrian use in the vicinity of the Project Site. As described in Section 3.10.1.1, *Regulatory Setting*, above, the City adopted the Walk 'N Bike Plan to facilitate increased walking to local destinations in San Bruno. Nothing in the Specific Plan prohibits implementation of the improvements identified in the Walk 'N Bike Plan. These improvements include improved crossings on all streets internal to the Plan Area as well as on El Camino Real. Outside of the scope of the Walk 'N Bike Plan, the Specific Plan includes pedestrian improvements along San Bruno Avenue, including wider sidewalks, high-visibility crosswalks, and advanced yield lines. The Specific Plan is also consistent with the Pedestrian Emphasis Zones identified in General Plan Figure 4-6. Bayhill Drive and Cherry Avenue are identified as pedestrian emphasis zones, indicating that they should be pedestrian oriented and use special design features such as pavers, street trees, human-scale lighting, banners, and benches. Many of these elements are included in the Specific Plan for these streets. For these reasons, the Project's impact on pedestrian facilities would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan because any changes to pedestrian facilities within the Phase I Site are included within those reviewed as part of the Specific Plan, above. Therefore, the Phase I Development's impact on pedestrian facilities would be ***less than significant***. No mitigation measures are required.

Impact TRA-10a. The Project would provide adequate bicycle facilities to connect to the area circulation network (Project: Less Than Significant).

Impact TRA-10b. The Phase I Development would provide adequate bicycle facilities to connect to the area circulation network (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to bicycle connectivity if it would lead to indirect, inaccessible, or uncomfortable connections to the area bicycle network. This includes missing infrastructure, designs that are not universally accessible, and/or substandard facilities.

Project

As described in Section 3.10.1, *Existing Conditions*, and illustrated on Figure 3.10-4, there are no existing bicycle facilities within or directly adjacent to the Plan Area. As described in Chapter 2, *Project Description*, the Project proposes to include new Class II striping-buffered bicycle lanes along portions of Cherry Avenue, Bayhill Drive, Elm Avenue, and San Bruno Avenue. In addition, the Project proposes to include new Class III bicycle facilities on portions of Cherry Avenue and Elm Avenue and along all of Grundy Lane. In addition to these internal improvements, the Project would add critical bicycle crossing improvements at the intersection of El Camino Real/Bayhill Drive/Euclid Avenue to connect cyclists to BART, Caltrain, and downtown San Bruno via Euclid Avenue and the Huntington Avenue bicycle corridor. The Project calls for the future evaluation and study of an additional improved connection to the City's bicycle network at San Bruno Avenue/Elm Avenue. As a result of these improvements, bicycle connectivity impacts associated with the Project would be ***less than significant.*** No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan because any changes to bicycle facilities within the Phase I Site are included within those reviewed as part of the Specific Plan. As a result, bicycle connectivity impacts associated with the Project would be ***less than significant.*** No mitigation measures are required.

Impact TRA-11a. The Project would provide adequate pedestrian facilities to connect to the area circulation system (Project: Less Than Significant).

Impact TRA-11b. The Phase I Development would provide adequate pedestrian facilities to connect to the area circulation system (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to pedestrian connectivity if it would lead to indirect, inaccessible, or uncomfortable connections to the area pedestrian network. This includes missing infrastructure, designs that are not universally accessible, and/or substandard facilities.

Project

Sidewalks and pedestrian paths are provided along most of the roadways near or adjacent to the Project Site. However, there are gaps in the sidewalk and crosswalk network along El Camino Real and San Bruno Avenue. San Bruno Avenue has a sidewalk on the north side of the roadway and most, but not all, of the south side of the roadway. Standard crosswalks are provided at the Bayhill Avenue/El Camino Real and I-380 Eastbound/El Camino Real intersections; however, these crossings are not universally accessible given the lengthy crossing distance across El Camino Real, heavy vehicle volumes, and vehicle speeds on those roadways. The Specific Plan calls for enhanced pedestrian crossing designs at El Camino Real/

Bayhill Drive/Euclid Avenue, at El Camino Real/San Bruno Avenue, and at all Plan Area crossings along San Bruno Avenue. These improvements would greatly enhance pedestrian connectivity to the rest of the City, most significantly BART, Caltrain, and residential neighborhoods south of the Project Site. As a result, pedestrian connectivity impacts associated with the Project would be ***less than significant.*** No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan because any changes to pedestrian facilities within the Phase I Site are included within those reviewed as part of the Specific Plan. As a result, pedestrian connectivity impacts associated with the Project would be ***less than significant.*** No mitigation measures are required.

Impact TRA-12a. The Project would not generate a substantial increase in transit riders that could not be adequately served by existing transit services (Project: Less Than Significant).

Impact TRA-12b. The Phase I Development would not generate a substantial increase in transit riders that could not be adequately served by existing transit services (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to transit capacity if it would lead to overcapacity of transit vehicles in the vicinity of the Project Site.

Project

The number of added transit riders was estimated based upon the trip generation estimates and transit mode share estimates for the Specific Plan land use program. Given all of these inputs, the daily transit ridership estimate is approximately 2,300 transit riders on either Caltrain, BART, or SamTrans. Between these three transit systems there is available capacity to accommodate these additional riders. Even if the Project and surrounding cumulative projects were to exceed this transit trip estimate, the combination of SamTrans, BART, and Caltrain service would be able to accommodate the added demand. All three service providers have planned service and capacity improvements scheduled to be completed in advance of the 2040 horizon year.

Various Specific Plan policies aim to further reduce the impact of added transit riders. These policies include commitments to provide first-mile/last-mile service between the Project Site and the San Bruno BART and Caltrain stations (Policy 4-5) and to construct enhanced transit stops within the Plan Area with seating, shelter, and wayfinding signage (Policy 4-6). Therefore, transit capacity impacts associated with the Project would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Specific Plan as a whole because Phase I Development transit ridership estimates are lower than the estimates for whole Project and would, therefore, be accommodated by existing transit services. Transit capacity impacts associated with the Phase I Development would be ***less than significant.*** No mitigation measures are required.

Impact TRA-13a. The Project would not substantially increase hazards because of a geometric design feature (e.g., sharp curves, dangerous intersections) or incompatible uses (e.g., farm equipment) (Project: Less Than Significant).

Impact TRA-13b. The Phase I Development would not substantially increase hazards because of a geometric design feature (e.g., sharp curves, dangerous intersections) or incompatible uses (e.g., farm equipment) (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to hazardous design if the design of the Project or incompatible uses would lead to potentially dangerous interactions between vehicles and other modes or bicycles and other modes.

Project

Future development under the Specific Plan would be required to undergo review by City departments, including a review of ground-floor/street-level operations so that loading operations and vehicle access are adequately accommodated without obstructing, hindering, or impairing drivers' reasonable and safe views of other vehicles, people walking, or people bicycling on the same street and/or restricting the ability of a driver to stop a motor vehicle without danger of an ensuing collision. Design features of subsequent development phases would need to be consistent with City standards and Walk 'N Bike Plan policies, both of which focus on eliminating existing hazards and designing the transportation network so as to enhance safety of all modes of travel. Although future development under the Specific Plan would add vehicle trips to the surrounding roadways, this general increase in vehicular traffic volumes would be distributed among multiple streets and would not itself be considered a traffic hazard.

The Specific Plan street network improvements were developed in consultation with various City departments to enhance safe travel for people bicycling and people walking within the Specific Plan area. The proposed street network improvements are presented in Chapter 2, *Project Description*, and include sidewalk widening, lighting improvements, advanced yield lines, new signalized crossings for people walking, new traffic signals, road diet treatments, and new Class II and Class III bike facilities. None of these are types of projects that would result in driving hazards.

Additionally, a queue analysis was performed at freeway off-ramp termini intersections to evaluate if the Project would result in a queue spillback that would affect the mainline freeway. The addition of the Project would increase queue lengths on freeway off-ramps near the Project Site. However, as shown in Table 3.10-9, the addition of the Project would not result in a queue length beyond the available ramp storage capacity. Therefore, the addition of the Project would not result in substantial queuing at freeway ramp termini intersections or an impact on the mainline freeway.

Therefore, for the reasons described above, the Project would not create potentially hazardous conditions, and impacts related to design hazards would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development streetscape improvements would be the same as those of the Project as a whole because the streetscape changes included in Phase I Development are encompassed by the Project streetscape improvements reviewed above.

The Phase I Development buildings (Phase I North and South) would not introduce any features that would result in hazards to people walking, biking, or driving. The two buildings would provide onsite commercial loading spaces to accommodate the commercial loading demand generated by the proposed office uses and provide on-street passenger loading zones to accommodate passenger loading needs. This design mitigates hazards that arise when these activities happen in the travel way.

Phase I North and Phase I South would provide vehicular parking and circulation space in below-grade levels that would be accessed from Grundy Lane and Bayhill Drive. The parking configuration and garage ramps to the below-grade levels are to be designed such that vehicles accessing the garage would not result in queues within the travel lane on either Grundy Lane or Bayhill Drive. Both the parking design and the parking supply are adequate to prevent queuing and circling for parking. On-street parking would not be permitted on any part of Bayhill Drive or on either side of the garage entrances on Grundy Lane. This design allows drivers entering or exiting the garages to see other vehicles, pedestrians, and bicycles traveling on these roadways.

Additionally, a queue analysis was performed at freeway off-ramp termini intersections to evaluate if the Phase I Development would result in a queue spillback that would affect the mainline freeway. The addition of the Phase I Development would increase queue lengths on freeway off-ramps near the Project Site. However, as shown in Table 3.10-9, the addition of the Phase I Development would not result in a queue length beyond the available ramp storage capacity. Therefore, the addition of the Phase I Development would not result in substantial queuing at freeway ramp termini intersections or an impact on the mainline freeway.

Therefore, the Phase I Development would not create potentially hazardous conditions for people walking, biking, or driving, and impacts related to design hazards would be ***less than significant***. No mitigation measures are required.

Impact TRA-14a. The Project would not cause inadequate emergency access (Project: Less Than Significant).

Impact TRA-14b. The Phase I Development would not cause inadequate emergency access (Phase I Development: Less Than Significant).

The Project would result in a significant impact related to emergency access if it would impair, hinder, or preclude adequate emergency access. As discussed above under Section 3.10.2.2, *Methodology and Approach*, the Maximum Office Scenario is considered for this analysis because it would generate the greatest number of peak-hour trips.

The existing roadway network enables emergency vehicle access to all buildings at the Project Site. Two San Bruno fire stations are located nearby: Station 52 at 1999 Earl Avenue and Central Fire Station at 555 El Camino Real. Central Fire Station is approximately 1 mile, or a 5-minute drive, from the center of the Project Site. The San Bruno Police Department, next to the San Bruno BART Station, is also about a 1-mile drive from the center of the Project Site.

Project

With implementation of the Project, including subsequent land use development and streetscape and street network improvements, emergency access routes would remain similar to existing conditions. Future development under the Specific Plan would be designed in accordance with City standards, which include provisions that address emergency access, and would be required to undergo multi-departmental City review so that proposed vehicle access and streetscape improvements do not impede emergency access to the Project Site or surrounding areas. In general, the proposed street network changes described below would not introduce unusual design features that would substantially change, hinder, or preclude existing emergency access.

- Straighten Grundy Lane from Cherry Avenue to Elm Avenue and install pedestrian and bicycle-oriented streetscape. The changes would not affect the ability of emergency service providers to travel on this roadway.
- Reduce number of travel lanes on Bayhill Drive, between Cherry Avenue and Elm Avenue, from four to two with a third median turn lane. Buffered bicycle lanes and pedestrian connectivity improvements would also be added. The changes would not affect the ability of emergency service providers to travel on this roadway. Conditions would be similar to those on other two-lane streets in the area.
- Install bike lanes and pedestrian connectivity improvements on San Bruno Avenue west of El Camino. The cross-section would be designed to be accessible to emergency vehicles. Implementation would require close coordination with, and approval from, Caltrans, which manages the San Bruno intersections at El Camino Real and the I-280 ramps.
- Reduce the number of travel lanes on Elm Avenue south of Bayhill Drive from four to two with a third median turn lane to accommodate on-street bike lanes. The changes would not affect the ability of emergency service providers to travel on this roadway. Conditions would be similar to those on other two-lane streets in the area.
- Signalize the intersection of Traeger Avenue and San Bruno Avenue. The changes would not affect the ability of emergency service providers to travel through this intersection. Conditions would be similar to those at other signalized intersections along San Bruno Avenue.

Therefore, for the reasons described above, the Project would not result in inadequate emergency access, and emergency access impacts would be ***less than significant***. No mitigation measures are required.

Phase I Development

The impacts of the Phase I Development would be the same as those of the Project because all Phase I Development streetscape changes are included within the review of Project streetscape changes. Furthermore, emergency access to the North Building and South Building is designed in accordance with City standards, which include provisions that address emergency access. Emergency access would be required to undergo multi-departmental City review so that proposed vehicle access and streetscape improvements do not impede emergency access to the Project Site or surrounding areas. Therefore, emergency access impacts associated with the Phase I Development would be ***less than significant.*** No mitigation measures are required.

3.10.3 Cumulative Impacts

As previously discussed, Plan Bay Area 2040 is the current RTP/SCS adopted by MTC and ABAG in July 2017. All transportation projects included in Plan Bay Area 2040 are included in cumulative forecasts used to evaluate the Project. Local projects included in San Bruno's 2018–2019 Capital Improvement Program are also included in the cumulative forecasts. Examples include the following regional and local projects.

- Regional projects:

- Caltrain Modernization Program: includes electrification of the existing Caltrain corridor between San Francisco and San José, installation of an advanced signal system, and replacement of diesel trains with high-performance electric trains.
- US 101 Express Lanes Project: will create 22 miles of express lanes on US 101 from I-380 in San Bruno to the San Mateo County/Santa Clara County border. The San Mateo 101 Express Lanes will connect to express lanes being constructed in Santa Clara County.

- Local projects:
  - Bicycle and pedestrian improvements along Huntington Avenue from Centennial Way to the San Bruno Caltrain Station.
  - Pedestrian enhancements along San Bruno Avenue between I-280 and Elm Avenue.
  - Transit corridor pedestrian connection improvements along San Mateo Avenue, San Bruno Avenue, Huntington Avenue, and El Camino Real.

The cumulative analysis below considers the background effects of these projects in tandem with the effects of the Project. Because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

3.10.3.1 Cumulative Impacts and Mitigation Measures

Cumulative impacts and mitigation measures are consistent with the operational impacts identified in the section above; however, they are restated here for ease of reference.

Impact C-TRA-1. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would, after mitigation, be consistent with CEQA Guidelines Section 15064.3, subdivision (b) (Project, including Phase I Development: Less Than Significant with Mitigation).

As presented in the *VMT Analysis Results* section above, the cumulative with Project condition would result in 26.1 VMT per Service Population. This is higher than the 21.7 VMT per Service Population CEQA threshold (determined by applying a 14.3-percent reduction to the existing regional average) and, consequently, constitutes a significant impact requiring mitigation.

To reduce the Project's impact to a less-than-significant level, the Project would need to reduce its addition of VMT by 17 percent (from 26.1 VMT per Service Population to 21.7). As shown in Transportation Appendix, pages 6–11, this reduction equates to reducing the SOV mode share for the Project Site from 54 percent to 43 percent, to meet the Project VMT per Capita threshold of 21.7. The VMT analysis results do not, however, take into account any TDM efforts currently used by Project Site employers or recommended as part of the Specific Plan. This is because neither the continuation of existing efforts nor the implementation of new successful programs is guaranteed in the future. The level of effort suggested in the Specific Plan TDM program was designed to approximate the level of investment needed under cumulative conditions to reduce trip generation and VMT to levels below the significance threshold (i.e., VMT cap of 21.7 per Capita or a SOV mode share of 43 percent). Under cumulative conditions, this is an achievable reduction target given the land use changes and improved transit service planned for the surrounding area by 2040. The TCP would increase density and diversity of uses near the Plan Area and would encourage more local walking and biking trips. In addition to land use changes, higher frequency and more reliable transit is planned for the Caltrain and El Camino Real corridors, which is expected to shift longer regional trips from auto trips to transit trips. For these reasons, the VMT generated by the Project would be lower in 2040 than it is under existing conditions. The reduction needed to reach the significance threshold would be smaller under 2040 cumulative conditions than under existing conditions and it is anticipated that TDM-based **Mitigation Measure TRA-1**, included above under Impact TRA-5, would reduce VMT to acceptable levels.

It is noted that the TDM program in the Specific Plan provides a list of suggested measures, but developers and property managers may tailor their own list of measures to fit their unique workforce culture and schedule. Furthermore, because the effectiveness of individual TDM measures can vary, it is necessary to regularly monitor the results of a TDM program to determine if adjustments are needed. It is only with regular monitoring that TDM can be used as a mitigation measure to reduce VMT to the level of the significance threshold. **Mitigation Measure TRA-1** requires an annual monitoring study to be completed by Project Site property owners to ensure that the 21.7 VMT per Capita or 43-percent SOV mode share target is being met. Therefore, with implementation of **Mitigation Measure TRA-1**, VMT impacts associated with the cumulative Project would result in a ***less-than-significant impact with mitigation.*** Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Impact C-TRA-2. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not conflict with a program, plan, ordinance, or policy addressing the roadway circulation system (Project, including Phase I Development: Less than Significant).

Cumulative volumes on adjacent roadways would be higher than they are today. The San Bruno General Plan and the San Mateo C/CAG CMP establish LOS standards. Under cumulative conditions, and as a result of the Specific Plan, a few nearby intersections would violate the LOS D threshold established by the San Bruno General Plan (Policy T-6). El Camino Real at San Bruno Avenue would further violate the LOS E threshold established by the San Mateo C/CAG CMP. Per CEQA Guidelines Section 15064.3 (b) and CEQA Statute Section 21099 (b) (2), LOS is not used in this EIR as a CEQA impact criterion but is still used for planning purposes. An intersection LOS and delay assessment was completed as a planning exercise for the Specific Plan but, for the reason cited above, the results are not evaluated in this EIR and policies relating to LOS are not considered as part of the policy consistency evaluation. Summary results are included in Appendix 3.10-1 for informational purposes only.

The Project would not conflict with currently adopted goals or policies and the Specific Plan's street network changes would be in keeping with existing plans, planned roadway facilities, and policies. Therefore, cumulative roadway network impacts resulting from implementation of the Project, in combination with the reasonably foreseeable future projects, would be ***less than significant***. No mitigation measures are required. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Impact C-TRA-3. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not conflict with a program, plan, ordinance, or policy addressing the transit circulation system (Project, including Phase I Development: Less Than Significant).

The Project would not interfere with existing or planned transit service. Any changes to existing or future transit stops would be made in consultation with the City, SamTrans, and Commute.org such that redesigned transit stops and stop locations would align with agency and City goals and standards.

Therefore, the Project's cumulative impact on the transit circulation system would be ***less than significant***. No mitigation measures are required. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Impact C-TRA-4. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not conflict with a program, plan, ordinance, or policy addressing the bicycle circulation system (Project, including Phase I Development: Less Than Significant).

The Project includes several new bicycle facilities within and adjacent to the Plan Area. The City adopted the Walk 'N Bike Plan to facilitate increased bicycling to local destinations in San Bruno. Nothing in the Specific Plan would interfere with implementation of the facilities proposed in the Walk 'N Bike Plan or other programs, plans, ordinances, or policies addressing the bicycle circulation system. Therefore, the Project's cumulative impact on the bicycle circulation system would be ***less than significant***. No mitigation measures are required. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Impact C-TRA-5. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not conflict with a program, plan, ordinance, or policy addressing the pedestrian circulation system (Project, including Phase I Development: Less Than Significant).

The Project would increase pedestrian use in the vicinity of the Project Site. As described in Section 3.10.1.1, *Regulatory Setting*, above, the City adopted the Walk 'N Bike Plan to facilitate increased walking to local destinations in San Bruno. Nothing in the Specific Plan inhibits implementation of the improvements identified in the Walk 'N Bike Plan. These improvements include improved crossings on Cherry Avenue, San Bruno Avenue, and El Camino Real, as well as streetscape improvements on the portion of El Camino Real bordering the Project Site. Outside of the scope of the Walk 'N Bike Plan, the Specific Plan includes pedestrian improvements along San Bruno Avenue, including wider sidewalks, high-visibility crosswalks, and advanced yield lines. The Specific Plan is also consistent with the Pedestrian Emphasis Zones identified in General Plan Figure 4-6. Bayhill Drive and Cherry Avenue are identified as pedestrian emphasis zones, indicating that they should be pedestrian oriented and use special design features such as pavers, street trees, human-scale lighting, banners, and benches. Many of these elements are included in the Specific Plan for these streets. For these reasons, the Project's cumulative impact on a program, plan, ordinance, or policy addressing the pedestrian circulation system would be ***less than significant***. No mitigation measures are required. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Impact C-TRA-6. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would provide adequate bicycle facilities to connect to the area circulation system (Project, including Phase I Development: Less Than Significant).

As described in Section 3.10.1, *Existing Conditions*, and illustrated on Figure 3.10-4, there are no existing bicycle facilities within or directly adjacent to the Plan Area. As described in Chapter 2, *Project Description*, the Project proposes to include new Class II striping-buffered bicycle lanes along portions of Cherry Avenue, Bayhill Drive, Elm Avenue and San Bruno Avenue. Portions of the Class II buffer on San Bruno

Avenue may include vertical elements, such as soft post delineators. In addition, the Project proposes to include new Class III bicycle facilities on portions of Cherry Avenue, Elm Avenue, and along all of Grundy Lane. In addition to these internal improvements, the Project would add critical bicycle crossing improvements at the intersection of El Camino Real/Bayhill Drive/Euclid Avenue to connect cyclists to BART, Caltrain, and downtown San Bruno via Euclid Avenue and the Huntington Avenue bicycle corridor. The Project calls for the future evaluation and study of an additional improved connection to the City's bicycle network at San Bruno Avenue/Elm Avenue. As a result of these improvements, cumulative bicycle connectivity impacts associated with the Project would be ***less than significant.*** No mitigation measures are required. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Impact C-TRA-7. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would provide adequate pedestrian facilities to connect to the area circulation system (Project, including Phase I Development: Less Than Significant).

Sidewalks and pedestrian paths are provided along most of the roadways near or adjacent to the Project Site. However, there are gaps in the sidewalk and crosswalk network along El Camino Real and San Bruno Avenue. San Bruno Avenue has a sidewalk on the north side of the roadway and most, but not all, of the south side of the roadway. Standard crosswalks are provided at the Bayhill Avenue/El Camino Real and I-380 Eastbound/El Camino Real intersections; however, these crossings are not universally accessible given the lengthy crossing distance across El Camino Real, heavy vehicle volumes, and vehicle speeds on those roadways. The Specific Plan calls for enhanced pedestrian crossing designs at El Camino Real/ Bayhill Drive/Euclid Avenue, at El Camino Real/San Bruno Avenue, and at all Plan Area crossings along San Bruno Avenue. These improvements would greatly enhance pedestrian connectivity to the rest of the City, most significantly BART, Caltrain, and residential neighborhoods south of the Project Site. As a result, cumulative pedestrian connectivity impacts associated with the Project would be ***less than significant.*** No mitigation measures are required. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Impact C-TRA-8. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not generate a substantial increase in transit riders that could not be adequately served by existing or planned transit services (Project, including Phase I Development: Less Than Significant).

The number of added transit riders was estimated based upon the trip generation estimates and transit mode share estimates for the Specific Plan land use program. Given all of these inputs, the daily transit Project ridership estimate is approximately 2,300 transit riders on either Caltrain, BART, or SamTrans. Between these three transit systems and the planned improvements, there would be available capacity to accommodate these additional riders. Even if the Project and surrounding cumulative projects were to exceed this transit trip estimate, the combination of SamTrans, BART, and Caltrain service would be able to accommodate the added demand. All three service providers have planned service and capacity improvements scheduled to be completed in advance of the 2040 horizon year. Therefore, transit capacity impacts associated with the Project would be ***less than significant***. No mitigation measures are required. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Impact C-TRA-9. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would substantially increase hazards because of a geometric design feature (e.g., sharp curves, dangerous intersections) or incompatible uses (e.g., farm equipment) (Project, including Phase I Development: Less Than Significant with Mitigation).

The Project and future adjacent development and street network improvements would be required to undergo review by City departments, including a review of ground-floor/street-level operations so that loading operations and vehicle access are adequately accommodated without obstructing, hindering, or impairing drivers' reasonable and safe views of other vehicles, people walking, or people bicycling on the same street and/or restricting the ability of a driver to stop a motor vehicle without danger of an ensuing collision. Although the Project would add vehicle trips to the surrounding roadways, this general increase in vehicular traffic volumes would be distributed among multiple streets and would not itself be considered a traffic hazard.

A queue analysis was performed at freeway off-ramp termini intersections to evaluate if the Project would result in a queue spillback that would affect the mainline freeway. The addition of the Project would increase queue lengths on freeway off-ramps near the Project Site. As shown in Table 3.10-10, the addition of the Project would not result in a queue length beyond the available ramp storage capacity with exception of the I-280 northbound off-ramp/San Bruno Avenue intersection under the cumulative plus project scenario. The I-280 northbound off-ramp is expected to spill back beyond the off-ramp gore during the PM peak hour under the 95th-percentile-queue scenario by 40 feet, approximately two vehicle lengths. This would result in a potentially hazardous condition and, therefore, a significant impact. It is anticipated that implementation of TDM-based **Mitigation Measure TRA-1** would reduce trip generation sufficiently to reduce the spill back by at least 40 feet, such that queues from the intersection would fit within the available off-ramp storage capacity. It is estimated that approximately 370 project-generated vehicles travel through this intersection in the PM peak hour. TDM is estimated to reduce VMT, and by proxy, trip generation by approximately 17 percent. This results in an approximate reduction of 60 PM Peak hour trips at this intersection. This would reduce the expected 95th percentile queue length by at least two car lengths. Therefore, the geometric design hazards associated with the cumulative Project would be ***less than significant with mitigation.*** Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

Signal timing and lane configuration adjustments are not necessary to reduce the impact to less than significant but could further reduce the queue length. This is a Caltrans-controlled intersection and any changes would be approved and administered by Caltrans.

Impact C-TRA-10. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not cause inadequate emergency access (Project, including Phase I Development: Less Than Significant).

The Project and cumulative foreseeable future projects would be designed in accordance with City standards, which include provisions that address emergency access. Additionally, all proposed development would be required to undergo multi-departmental City review so that proposed vehicle access and streetscape improvements do not impede emergency access to the Project Site or surrounding areas. Therefore, the Project would not result in inadequate emergency access, and cumulative emergency access impacts would be ***less than significant***. No mitigation measures are required. Further, because the Phase I Development is a component of the Project, the cumulative analysis for the Project also serves as the cumulative analysis for the Phase I Development.

3.10.4 References Cited

California Air Pollution Control Officers Association (CAPCOA). 2010. Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. Available: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.

California Air Resources Board (CARB). 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals (2019). Available: https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate.

California Department of Transportation (Caltrans). 2017. San Mateo County Economic Forecast. Available: http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2017/SanMateo.pdf.

3.11 Utilities and Service Systems

This section describes the environmental and regulatory setting for utilities and service systems in the City of San Bruno as it pertains to the Specific Plan and Phase I Development (Project). It also describes the utilities and service systems impacts, if any, that would result from implementation of the Project and provides mitigation where feasible for significant impacts. As discussed in Chapter 1, *Introduction*, the Project comprises the Specific Plan and Phase I Development under the Specific Plan. Phase I Development consists of the first phase of expansion of YouTube's corporate offices. The impacts of the Specific Plan are analyzed at a program level and the impacts of the Phase I Development are analyzed at a project level. Impacts specific to the Phase I Development (and mitigation measures, where applicable) are described.

This analysis is based on the following technical reports and memoranda pertaining to utilities serving the Project Site. These technical reports are included in the ~~Draft~~ EIR appendices identified below.

- Bayhill Specific Plan Development Project Water Supply Assessment (WSA) (West Yost Associates 2019), included in Appendix 3.11-1a;
- Bayhill Specific Plan Development Project Water Supply Assessment Addendum (WSA Addendum) (West Yost Associates 2021), included in Appendix 3.11-1b;
- Water System Hydraulic Evaluation of Bayhill Specific Plan Development (West Yost Associates 2020), included in Appendix 3.11-2;
- Hydrology and Water Quality Evaluation for the Bayhill Specific Plan and the YouTube Phase I Office Development (HWQE) (Kimley Horn 2020), included in Appendix 3.5-1;
- Sanitary Sewer Impact Study for Bayhill Specific Plan Area (SSIS) (Woodard & Curran 2019), included in Appendix 3.11-3; and
- Revised Groundwater Assessment in Support of Bayhill Specific Plan Environmental Impact Report (EKI Environment & Water, Inc. 2020), included in Appendix 3.5-2.

Issues identified in response to the Notice of Preparation (NOP) and the Revised NOP (Appendix 1) were considered in preparing this analysis. The NOP comments pertaining to utilities and service systems include support for onsite fiber optic connections, concerns regarding the adequacy of current solid waste diversion requirements for construction-phase solid waste resulting from demolition activities, and concerns regarding potential project impacts on San Francisco Public Utilities Commission (SFPUC) water pipeline right-of-way underlying the Project Site. These issues are discussed in greater detail below and, in the case of SFPUC rights-of-way, in Section 3.6, *Land Use and Planning*, of this ~~Draft~~ EIR.

3.11.1 Existing Conditions

3.11.1.1 Regulatory Setting

This section summarizes regional and local regulations and policies applicable to the Specific Plan and Phase I Development concerning utility infrastructure and facilities including water supply and water system infrastructure; wastewater treatment and conveyance facilities; stormwater drainage facilities; electrical and natural gas facilities and service lines; telecommunications facilities; and solid waste transport facilities and disposal sites.

3.11.1.2 State

Urban Water Management Planning Act

California State Assembly Bill (AB) 797 (California Water Code Section 10610, et. seq.), adopted in 1983, requires that every urban water supplier providing water for municipal purposes to more than 3,000 customers or providing more than 3,000 acre-feet of water on an annual basis prepare an Urban Water Management Plan (UWMP). The intent of the UWMP is to assist water supply agencies in long-term water resource planning given their existing and anticipated future demands. UWMPs must be updated every five years in years ending in 0 and 5 (State of California Department of Water Resources [DWR] 2010).

Senate Bill 610

Senate Bill (SB) 610 requires that certain large projects subject to the California Environmental Quality Act (CEQA) prepare a specified Water Supply Assessment (WSA) (DWR 2003). The WSA must be furnished to the local government for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912[a]) subject to CEQA. This legislation also expands the requirements for certain types of information in an UWMP, including an identification of any existing water supply entitlements, water rights, or water service contracts held relevant to the WSA for a proposed project, and a description of water deliveries received in prior years. A WSA has been prepared for the Project, and is included in Appendix 3.11-1a to this ~~Draft~~ EIR. An addendum to the WSA is included in Appendix 3.11-1b.

Senate Bill 221

SB 221 prohibits approval of subdivisions consisting of more than 500 dwelling units unless there is verification of sufficient water supplies for the project from the applicable water supplier(s) (DWR 2003). This requirement also applies to increases of 10 percent or more of service connections for public water systems with fewer than 500 service connections. The law defines criteria for determining "sufficient water supply," such as using normal, single-dry, and multiple-dry year hydrology and identifying the amount of water that the suppler can reasonably rely on to meet existing and future planned use.

Senate Bill X7-7 2009 (Water Conservation Act of 2009)

Effective January 1, 2010, SB X7-7 requires the State to achieve a 20 percent reduction in urban per capita water use by December 31, 2020 (DWR 2009). In addition, SB X7-7 requires agricultural water management plans and efficient water management practices for agricultural water suppliers, and promotes expanded development of sustainable water supplies at the regional level. The portion of SB X7-7 focused on urban water management establishes processes for urban water suppliers to meet the statewide water conservation targets. Furthermore, SB X7-7 requires DWR review and reporting on urban water management plans; creates a Commercial, Industrial, and Institutional Task Force to develop best management practices for water use in this sector; requires that DWR promote implementation of regional water resource management practices through increased incentives; and requires that DWR in consultation with the State Water Resources Control Board (SWRCB) develop or update statewide targets for recycled water, brackish groundwater desalination, and urban stormwater runoff.

California Integrated Waste Management Act

The California Integrated Waste Management Act (IWMA), AB 939, passed in September 1989, requires every city and county in the State to prepare a Source Reduction and Recycling Element with its Solid

Waste Management Plan that identifies how each jurisdiction will meet the mandatory State diversion goals of 25 percent by 1995 and 50 percent by 2000 (CalRecycle 2018a). The intent of AB 939 is to facilitate solid waste reductions, recycling, and reuse to the greatest extent possible. The bill imposes fines of up to $10,000 per day on cities and counties for non-compliance in meeting the goals and timelines set forth in AB 939.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week must arrange recycling services. To comply with this requirement, businesses may either separate and self-haul recyclables or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939.

Assembly Bill 1826

Assembly Bill 1826 (AB 1826) requires that state agencies, businesses, and multifamily complexes that generate specific quantities of organic or solid waste each week enroll in organic recycling programs through an applicable solid waste disposal company (CalRecycle 2016a, CalRecycle 2016b). Organic recycling programs may take the form of composting, mulching, or anaerobic digestion. Businesses and multifamily residential housing complexes that generate the following quantities are required to implement organic or solid waste recycling programs under AB 1826:

- Eight or more cubic yards of organic waste per week as of April 1, 2016;
- Four of more cubic yards of organic waste per week as of January 1, 2017;
- Four or more cubic yards of solid waste per week as of January 1, 2019; and
- Two or more cubic yards of solid waste per week as of January 1, 2020, if statewide disposal of organic waste is not reduced by half.

CalRecycle is currently evaluating whether California has achieved its statewide organic disposal goal of reducing organic waste disposal to 50 percent of 2014 levels by 2020. If this goal is not achieved, organic composting and recycling requirements will be expanded such that businesses that generate two or more cubic yards of solid waste per week must comply.

California Energy Efficiency Standards (CALGreen) for Residential and Nonresidential Buildings—Green Building Code (2011), Title 24 Updates

The California Green Building Standards code (Part 11, Title 24) was adopted as part of the California Building Standards Code (24 California Code of Regulations [CCR]). The California Green Building Standards Code (CALGreen) applies to the planning, design, operation, construction, use and occupancy of newly constructed buildings and requires the installation of energy and water efficient indoor infrastructure for all new projects beginning after January 1, 2011. CALGreen also requires newly constructed buildings to develop a waste management plan and divert at least 50% of the construction materials generated during project construction.

The current 2019 Building Energy Efficiency Standards for the State of California were adopted on January 1, 2020. While the 2019 standards do not require zero net energy buildings, they are expected to result in substantially reduced carbon emissions from newly constructed residential and nonresidential buildings throughout California. New requirements under the 2019 standards include solar photovoltaic systems on all new homes, as well as measures that encourage energy storage technologies, such as batteries, heat pump water heaters, and highly efficient air filters.

3.11.1.3 Regional

SFPUC Right-of-Way (ROW) Policies

The SFPUC owns and manages land and water system infrastructure for its own exclusive use that is part of the Hetch Hetchy Regional Water System. The primary use of SFPUC lands and easements is for the delivery, operation, maintenance and protection of water, power, and sewer systems. As discussed in Chapter 2, *Project Description*, the SFPUC maintains two easements in the Project Site. The SFPUC has adopted guidelines to help inform how and in which instances the easements can serve the needs of public agencies, private parties, nonprofit organizations, and developers, while maintaining the safety and security of the SFPUC pipelines. SFPUC guidelines pertain to land use and structures, recreational use, utilities, vegetation, and water efficiency. The easements also are subject to terms and restrictions regarding use of land contained in the original deeds granting the easements to the SFPUC.

Water System Improvement Program

SFPUC's Water System Improvement Program (WSIP) was approved on October 31, 2008, with the purpose of improving the delivery reliability of the Regional Water System (RWS) that is operated by SFPUC. The objectives of the WSIP related to water supply are listed below.

- Meet average annual water demand of 265 MGD from the SFPUC watersheds for retail and wholesale customers during non-drought years for system demands consistent with the 2009 Water Supply Agreement.
- Meet dry-year delivery needs while limiting rationing to a maximum 20 percent system-wide reduction in water service during extended droughts.
- Diversify water supply options during non-drought and drought periods.
- Improve use of new water sources and drought management, including groundwater, recycled water, conservation, and transfers.

The WSIP provides benefits to the City by improving the reliability of wholesale water purchased from SFPUC, especially during periods of drought. The program aims to meet customer water needs in non-drought and drought conditions and provides dry-year water supply projects to augment all year type water supplies during drought. As of August 2021, the WSIP was approximately 99 percent complete; the current forecasted date to complete the overall WSIP is May 2023 (SFPUC 2021).

South Westside Basin Groundwater Management Plan

~~The SFPUC developed a plan describing~~The South Westside Basin Groundwater Management Plan (GWMP), completed in July 2012, includes strategies and recommendations that guide planning decisions in a manner that preserves groundwater within the South Westside Groundwater Basin, which underlays the Project Site (SFPUC 2012). The GWMP indicates that the basin is not in overdraft and the City can pump at a rate of 2.1 MGD on a long-term basis. For additional details pertaining to the South Westside Basin Groundwater Management Plan, please refer to Section 3.5, *Hydrology and Water Quality*, of this ~~Draft~~ EIR.

Regional Groundwater Storage and Recovery Project

In December 2014, the Regional Groundwater Storage and Recovery (GSR) Project operating agreement was signed to ensure long-term management and sustainability of the South Westside Groundwater Basin through a strategic conjunctive use partnership. The partnership with the City of San Bruno, SFPUC, California Water Service (serving South San Francisco and Colma), and the City of Daly City allows the agencies to operate the basin jointly and provides a new 20-billion-gallon regional dry year groundwater supply. The project is included as part of the SFPUC WSIP described above. The City implemented conjunctive use operations starting in 2016.

The Regional GSR Project is an in-lieu groundwater recharge program that balances groundwater and the SFPUC RWS to increase drought year water supplies. Under the Regional GSR Project, the City operates under two supply modes that vary according to hydrologic conditions. During wet and normal years (“put” operations), SFPUC provides additional surface water to the City to reduce the City’s groundwater pumping. The additional supply is stored in the South Westside Basin as groundwater until it is needed during a drought or emergency. During dry years (“take” operations), the City utilizes available groundwater supplies and reduces surface water deliveries, thereby freeing surface water supply to be delivered to other SFPUC customers.

~~In 2014, SFPUC, in conjunction with the City of Daly City, the California Water Service Company, and the City of San Bruno, established the Regional Groundwater Storage and Recovery Project. This project encourages water resource preservation in healthy groundwater basins during normal and wet years, such that the groundwater resources may be utilized in future drought years if needed. Under this joint program, groundwater basin pumping is significantly reduced during normal precipitation and wet years. In exchange, SFPUC provides additional surface water resources in excess of the jurisdiction’s Individual Supply Guarantee to match the amount of groundwater that would have otherwise been withdrawn from the basin. Under the Regional Groundwater Storage and Recovery Project, the SFPUC makes available for delivery of up to 5.52 million gallons per day (MGD) of SFPUC water to prevent groundwater pumping. Participating jurisdictions are permitted to continue pumping groundwater during wet years to support well maintenance, distribution system constraint management, and water quality blending (City and County of San Francisco Planning Department 2013). In dry years, when surface water resources are at risk of depletion, water resources may be extracted from the replenished local groundwater basin supply to supplement SFPUC water supplies. The South Westside Basin is part of the Regional Groundwater Storage and Recovery Project. Therefore, while the basin has historically provided substantial groundwater resources in the City of San Bruno, it is currently subject to Regional Groundwater Storage and Recovery Project restrictions in accordance with the terms and conditions of the Groundwater Storage and Recovery Agreements.~~

Bay Delta Plan Amendment

In December 2018, the State Water Resources Control Board adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, establishing water quality objectives to maintain the health of the State’s rivers and the Bay-Delta ecosystem (the Bay-Delta Plan Amendment) (SWRCB 2019). The State Water Resources Control Board has stated that it intends to implement the Bay-Delta Plan Amendment by 2022, assuming all required approvals are obtained by that time. Implementation of the Bay Delta Plan Amendment will result in a substantial reduction in the City’s SFPUC water supplies from the Tuolumne River watershed during dry years, requiring rationing in the City to a degree greater than that previously anticipated to address supply shortages that were not accounted for in the 2015 Urban Water Management Plan, which is discussed in greater detail below.

In a letter dated July 31, 2019 from the SFPUC Director of Water Resources to the Bay Area Water Supply & Conservation Agency (BAWSCA) Water Resources Manager, SFPUC provided a memorandum[1] titled *"Water Supply Reliability Information for BAWSCA Member Agencies Water Supply Assessments (with Corrections)"* (Reliability Memorandum). This Reliability Memorandum (Appendix 3.11-1b, Attachment A) states that implementation of the Bay-Delta Plan Amendment is uncertain for several reasons:

- **First**: Under the Clean Water Act, the U.S. Environmental Protection Agency (USEPA) must approve the water quality standards identified in the Bay-Delta Plan Amendment within 90 days from the date the approval request is received. By letter dated June 11, 2019, USEPA rejected the State Board's two-page submittal as inadequate under the requirements of the Clean Water Act. Pursuant to USEPA's letter, the State Board has 90 days to respond with a submittal that complies with the law. At this point, USEPA has neither approved, nor disapproved, any of the revised water quality objectives. It is uncertain whether the USEPA will approve or disapprove the water quality standards in the future. Furthermore, the determination could result in litigation.

- **Second**: Since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed in both state and federal court, challenging the State Board's adoption of the Bay-Delta Plan Amendment, including two legal challenges filed by the federal government, at the request of the U.S. Department of Interior, Bureau of Reclamation in state and federal courts. These cases are in the early stage and there have been no dispositive court rulings to date.

- **Third**: The Bay-Delta Plan Amendment is not self-implementing and does not allocate responsibility for meeting its new flow requirements to the SFPUC or any other water rights holders. Rather, the Plan Amendment merely provides a regulatory framework for flow allocation, which must be accomplished by other regulatory and/or adjudicatory proceedings, such as a comprehensive water rights adjudication or, in the case of the Tuolumne River, the 401 certification process in the Federal Energy Regulatory Commission's (FERC) relicensing proceeding for Don Pedro Dam. The license amendment process is currently expected to be completed in the 2022-23 timeframe. This process and the other regulatory and/or adjudicatory proceedings would likely face legal challenges and have lengthy timelines, and quite possibly could result in a different assignment of flow responsibility (and therefore a different water supply impact on the SFPUC).

- **Fourth**: In recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, State Board Resolution No. 2018-0059 adopting the Bay-Delta Plan Amendment directed staff to help complete a "Delta watershed-wide agreement, including potential flow measures for the Tuolumne River" by March 1, 2019, and to incorporate such agreements as an "alternative" for a future amendment to the Bay-Delta Plan to be presented to the State Board "as early as possible after December 1, 2019." In accordance with the State Board's instruction, on March 1, 2019, SFPUC, in partnership with other key stakeholders, submitted a proposed project description for the Tuolumne River that could be the basis for a voluntary substitute agreement with the State Board ("March 1st Proposed Voluntary Agreement"). On March 26, 2019, SFPUC adopted Resolution No. 19-0057 to support SFPUC's participation in the Voluntary Agreement negotiation process. To date, those negotiations are ongoing under the California Natural Resources Agency and California Environmental Protection Agency and the leadership of the Newsom

[1] Letter from Paula Kehoe, SFPUC Director of Water Resources to Tom Francis, Water Resources Manager, BAWSCA, dated July 31, 2019. Includes attachment titled Water Supply Reliability Information for BAWSCA Member Agencies Water Supply Assessments (with Corrections).

administration. The negotiations for a voluntary agreement have made significant progress since an initial framework was presented to the State Board on December 12, 2018. The package submitted on March 1, 2019 is the product of renewed discussions since Governor Newsom took office. While significant work remains, the package represents an important step forward in bringing together diverse California water interests.

San Mateo Countywide Stormwater Pollution Prevention Program

The City of San Bruno is one of twenty participating cities in the San Mateo Countywide Water Pollution Prevention Program, which manages a shared National Pollutant Discharge Elimination System (NPDES) permit utilized by all participating agencies (City/County Association of Governments of San Mateo County 2015). The Program ensures that participating jurisdictions manage stormwater runoff flows such that contaminated water runoff and discharge into waterbodies is minimized. The program accomplishes this by directing construction projects, municipal operations, and other potential stormwater sources countywide to incorporate appropriate Low-Impact-Development (LID) measures that contain, filter, and treat stormwater prior to discharge. The City of San Bruno administers stormwater quality protection through the C.3 Municipal Regional Stormwater Permit (MRP) which is issued under NPDES and by RWQCB through this program.

3.11.1.4 Local

Sanitary Sewer Management Plan

The City of San Bruno Sewer System Management Plan is a comprehensive planning document that describes the policies and procedures required to maintain compliant sewer services Citywide (City of San Bruno 2016). These policies help fulfill San Francisco Bay Regional Water Quality Control Board (RWQCB) water quality and sewer management requirements and to prevent sanitary sewer overflows and maintain water quality. Generally, goals and policies described in the Sanitary Sewer Management Plan pertain to maintaining adequate sanitary sewer wastewater conveyance and treatment capacity, minimizing sewer overflow incidents, and preventing illicit discharges including contaminated stormwater, chemicals, debris, and fats and oils.

2015 Urban Water Management Plan

The City of San Bruno 2015 Urban Water Management Plan (West Yost Associates 2016) provides both current and future water supply planning guidance and implementation strategies citywide in accordance with RWQCB requirements and with the Urban Water Management Planning Act (AB 797). The UWMP is intended to preserve water resources in the City of San Bruno to ensure sufficient water supplies and adequate water quality in the City based on catalogued and projected water use data and the City's Individual Supply Guarantee (ISG), the amount of SFPUC-provided surface water resources that are guaranteed for purchase.

Chapter 8 of the ~~2015 City of San Bruno Urban Water Management Plan~~ UWMP outlines the City's Water Shortage Contingency Plan (WSCP), which includes specific water conservation procedures intended to incentivize water use reductions and water conservation citywide. The WSCP details four increasing levels of conservation measures the City Council can implement during water shortage events, as authorized under Chapter 10.16 of the San Bruno Municipal Code. The stages were developed to meet supply cutbacks ranging from 5 percent to 50 percent:

- The first stage, Stage I, aims at reducing the City's water use by 10 percent in response to a reduction in supply ranging from 5 percent to 10 percent. Stage I reflects a scenario where the SFPUC is forced to reduce wholesale water deliveries to customers of the RWS by 10 percent. Stage I includes voluntary water conservation measures that are promoted through a public information campaign aimed at increasing awareness through the distribution of literature and bill inserts, newspaper advertisements, and educational speakers for schools and other groups.
- The actions outlined in Stage II are to be implemented when the City requires a 20 percent reduction in water use. The City may be faced with such cutbacks during multiple dry year periods when the RWS experiences a 20 percent reduction in water supply. Stage II calls for mandatory conservation measures as determined necessary by the City Council and the Public Services Director, an aggressive public information campaign, and voluntary water allocations.
- Stage III water conservation and rationing measures are geared toward a 35 percent reduction in City-wide water use. The steps to achieve a Stage III reduction include all of the steps outlined in Stage II, as well as mandatory water allotments for all accounts, increased monitoring of water use, and increased rates and penalties for excess water use.
- Stage IV identifies mechanisms by which the City could reduce total water use by up to 50 percent, as required by the Urban Water Management Planning Act. To achieve a reduction in water use of 50 percent, the City would adjust mandatory allotments and reductions from Stage III as necessary to reach a City-wide water use reduction of 50 percent. If necessary, the City may prohibit all water use except as required for public health and safety. Increased enforcement mechanisms would be instituted to enforce the Stage IV cutbacks.

The City's 2015 UWMP includes demand reduction assumptions under dry year conditions that reflect implementation of the WSCP:

- During Single Dry Years, the potable water demands are assumed to be 90 percent of Normal Year demands (10 percent reduction in water use). This assumes that the City implements Stage I of the WSCP.
- During Multiple Dry Years, the potable water demands are assumed to be 90 percent of Normal Year demands (10 percent reduction in water use) for the first dry year and 80 percent of Normal Year demands (20 percent reduction in water use) for the second and third dry year. This assumes that the City implements Stage I of the WSCP in the first year and implements a Stage II water shortage in the second and third years.

The City is currently preparing its 2020 UWMP, which is scheduled for public review in September 2021. The demand estimates in the draft 2020 UWMP account for the estimated water demand of the Project, inclusive of the Phase I Development, as shown in Table 3.11-6a (West Yost Associates 2021).

Storm Drain Master Plan

The City of San Bruno Storm Drain Master Plan guides storm drain infrastructure planning to help reduce overall storm drain runoff and localized flooding risks, with special consideration for site topography, drainage patterns, and system capacity limitations (City of San Bruno 2014a). The Storm Drain Master Plan identifies the storm drain system currently serving the Project Site as being comprised of underground pipes, box culverts, and channels.

City of San Bruno Green Infrastructure Plan

The City of San Bruno Green Infrastructure Plan (City of San Bruno 2019), approved in August 2019, guides sustainable development in the City of San Bruno, with a focus on converting the City's storm drainage systems from a traditional "grey" infrastructure system, in which stormwater flows across impervious surfaces directly into storm drains, to an integrated approach that will direct runoff to vegetated areas for infiltration. The plan intends to identify and prioritize low-impact development (LID) opportunities citywide in which such stormwater management infrastructure can be installed in the form of bioretention areas, stormwater tree well filters, suspended pavement systems, pervious pavement, infiltration facilities, green roofs, and rainwater harvesting facilities. Portions of the Project Site are located in either medium- or high-priority LID or regional project opportunities.

3.11.1.5 Environmental Setting

This section provides a discussion of the existing conditions related to utilities and service systems on and serving the Project Site, inclusive of Phase I Site. Described utilities include potable water facilities; wastewater treatment facilities; electricity, natural gas, and telecommunications infrastructure; sanitary sewer facilities; stormwater facilities; and solid waste providers.

City of San Bruno

Water Supply, Demand, and Conveyance System

The City of San Bruno purchases treated surface water from SFPUC and North Coast County Water District (NCCWD) and delivers water to its customers through the City's water distribution system, which consists of 100 miles of pipelines, 9,000 valves, 985 fire hydrants, 8 pumping stations, 8 storage tanks, and 13 pressure zones (City of San Bruno n.d. a). SFPUC water supplies are primarily derived from the Hetch Hetchy watershed within Yosemite National Park and subsequent downstream reservoirs, with the remaining SFPUC water supplies originating locally within the Bay Area. SFPUC provides an Individual Supply Guarantee of 3.25 millions of gallons per day (MGD) to the City of San Bruno, and a collective 184 MGD Individual Supply Guarantee to all ~~Bay Area Water Supply & Conservation Agency (~~BAWSCA~~)~~ members, including the City of San Bruno.~~ However, under the Regional Groundwater Storage and Recovery Project, SFPUC may require jurisdictions to purchase up to 5.52 MGD of water based on system needs, water availability, and groundwater recharge goals (West Yost Associates 2015).~~ Purchased NCCWD water supplies only the ~~Treetop Apartment Complex~~ Crystal Springs Terrace Apartments , which does not fall within the Project Site and therefore is not discussed in detail in this analysis (West Yost Associates 2016).

The City of San Bruno also obtains water locally from South Westside Basin groundwater resources (West Yost Associates 2019a). Much of the City of San Bruno is underlain by the South Westside Basin, which produces approximately 8,600 acre-feet of water annually. Additional information regarding the physical conditions of the South Westside Basin, as well as further details regarding the hydrological setting within the City of San Bruno and the Project Site, are included in Section 3.5, *Hydrology and Water Quality*, of this ~~Draft~~ EIR.

In 2010, 2,364 acre-feet (28 percent) of the City's water was produced from four supply wells within City boundaries (SFPUC 2012). Approximately half of the City's water supply was sourced from the South Westside Basin, a "Very Low Priority" groundwater basin, between the years 2005 and 2010, with the remaining water supply purchased from SFPUC and NCCWD (California Department of Water Resources 2019). ~~However, a~~ As described in greater detail in the Regulatory Setting section above, the South

Westside Basin is a shared groundwater resource. The local agencies overlying the basin manage the resource jointly through use of a GWMP and the Regional GSR Project ~~preserved under the Regional Groundwater Storage and Recovery Project, which identifies healthy groundwater basins in which natural recharge is prioritized (SFPUC 2018). Therefore, as part of the Regional Groundwater Storage & Recovery Project agreement, the City of San Bruno relies primarily on South Westside Basin groundwater resources during dry-weather years, and purchases SFPUC water resources during wet years, in accordance with specific Project provisions. Under the agreement, wet year water purchases may exceed the City's Individual Supply Guarantee~~. From Fiscal Year 2013/2014 through Fiscal Year 2015/2016, the City pumped an average of 1.82 MGD of groundwater from the South Westside Basin; in Fiscal Year 2016/2017, this quantity was reduced to 0.27 MGD with ~~program~~ implementation of the Regional GSR Project (West Yost Associates 2019a).

Water supply demand generally increases with population growth to meet water supply needs to serve the larger population (West Yost Associates 2016). As described in greater detail in Section 3.8, *Population and Housing*, of this ~~Draft~~ EIR, the City of San Bruno is projected to reach a population of 41,455 by 2020; 43,835 by 2030; and 51,370 by 2040. ~~Notwithstanding projected population growth, water supply shortages are not anticipated during Normal, Single Dry, or Multiple Dry water years in the City through 2040, though SFPUC water supplies are expected to decrease over consecutive dry year conditions (West Yost Associates 2019a).~~ Table 3.11-1a, below, displays historical and projected water demands during Normal years across land use types citywide, based on population growth projections for the City of San Bruno. As shown in Table 3.11-1b, ~~D~~dry-year water demand is less than what is displayed in Table 3.11-1a due to updates in proposed development and mandated water conversation measures ~~as described in greater detail in Tables 4-2 and 4-4 of the WSA~~ (West Yost Associates ~~2019a~~ 2021). The demand projections in Table 3.11-1b, which are based on the City's draft 2020 UWMP, account for the estimated water demand of the Project, inclusive of the Phase I Development (West Yost Associates 2021).

Table 3.11-1a. Historical and Future/Projected Water Demands Across Land Uses in the City of San Bruno for Normal Years (MGD)

Land Use Sector	FY 2004/05	FY 2009/10	FY 2014/15	2020	2025	2030	2035	2040
Residential	2.78	2.48	2.14	2.68	2.89	3.12	3.39	3.62
Commercial	0.52	0.59	0.62	0.78	0.84	0.91	0.99	1.06
City Parks/ Facilities	--	0.17	0.13	0.16	0.17	0.18	0.20	0.21
Other	0.32	0.01	--	--	--	--	--	--
Water Losses[a]	0.15	0.40	0.25	0.31	0.34	0.37	0.40	0.42
Total (MGD)[b]	**3.76**	**3.65**	**3.14**	**3.93**	**4.24**	**4.58**	**4.98**	**5.31**

Source: West Yost Associates 2016~~, West Yost Associates 2019~~
Notes:
MGD = millions of gallons per day
FY = Fiscal Year
[a] Future water losses were projected at a rate of approximately 8% of total ~~combined~~ water production ~~and import~~
~~[b] While projected water demands for the years 2020-2040 in the City of San Bruno exceed the City's current 3.25 MGD Individual Supply Guarantee, SFPUC may require jurisdictions to purchase up to 5.52 gallons of water to prevent groundwater withdrawal from the South Westside Basin under the provisions of the Regional Groundwater Storage and Recovery Project.~~.

Table 3.11-1b, Projected City of San Bruno Future Water Demand During Varying Hydrologic Conditions (MGD)

Hydrologic Condition	Demand Reduction Percent[a]	2025	2040	2045
Average (Normal) Year[b]	0	3.53	4.78	4.78
Single Dry Year	10	3.18	4.30	4.30
Multiple Dry Years, Year 1	10	3.18	4.30	4.30
Multiple Dry Years, Year 2	20	2.82	3.82	3.82
Multiple Dry Years, Year 3	20	2.82	3.82	3.82
Multiple Dry Years, Year 4	20	2.82	3.82	3.82
Multiple Dry Years, Year 5	20	2.82	3.82	3.82

Source: West Yost Associates 2021

[a] Demands will be reduced 10 percent for single dry years for a Stage I water shortage and 20 percent for multiple dry years, after year 1, for a Stage II water shortage.

[b] Based on totals presented in the City's working draft 2020 UWMP. Demand estimates include the projected demands of the Project, inclusive of the Phase I Development, as shown in Table 3.11-6a.

Wastewater Generation, Conveyance, and Treatment

The City of San Bruno owns and maintains the sanitary sewer conveyance system within City limits and is responsible for sewer system operation and maintenance therein. Wastewater is transported through this conveyance system to the Shaw Road Pump Station from two sewer pipeline segments: one located near Tanforan Avenue and serving the Project Site, and the other at 7th Avenue. The Tanforan Avenue system discharges are approximately 1.91 MGD under average dry weather flow conditions, 3.11 MGD under peak dry weather flow conditions, and 12.1 MGD under peak wet weather flow conditions (Woodard & Curran 2019). The City does not identify the Tanforan Avenue system as requiring long-term system improvements and updates to serve future wastewater conveyance needs (City of San Bruno 2014b). Wastewater is then transported from the South San Francisco Shaw Road Sewage Pump Station, ultimately to the South San Francisco/San Bruno Water Quality Control Plant (WQCP) in South San Francisco for treatment (City of South San Francisco n.d.). The WQCP processes wastewater discharge for the Cities of South San Francisco, San Bruno, and the Town of Colma, There is no formal agreement about the proportion of wastewater treatment capacity entitled to each city, however, the agreement is specific that the share of operating costs is proportional to use (City of San Bruno 2009).

During dry weather conditions, the WQCP has a peak flow capacity of 13 MGD of wastewater, which is increased to a peak capacity of 62 MGD during wet weather flow conditions; average dry-weather flows at the WQCP are approximately 9 MGD, and average peak weather flows can exceed 60 MGD. (City of South San Francisco n.d., Carollo Engineers 2019). To accommodate peak wet-weather flows, the WQCP is in the process of conducting facility improvements, which would include installation of a new storage basin to retain excess flows during wet-weather conditions (EKI 2018, Carollo Engineers 2011). Currently, the City of San Bruno generates an average of approximately 2.9 MGD of dry-weather wastewater which is eventually conveyed to and treated at the South San Francisco/San Bruno WQCP from both the Tanforan Avenue and 7th Avenue systems, and has an allocated dry-weather capacity of 3.5 MGD at the plant (Woodard & Curran 2019) (Ju pers. Comm). The City generates a peak wet weather flow of approximately 20.3 MGD; the City does not have an allocated wet weather capacity at the South San Francisco/San Bruno WQCP but is responsible for its share of flows (Woodard & Curran 2019) (Ju pers. Comm).

Storm Drain System

The City's storm drain system consists of underground pipes and culverts, as well as aboveground channels. The storm drainage system generally drains eastward towards San Bruno Channel, within San Francisco Bay. The City's storm drain system is divided into six Watershed areas with associated drainage infrastructure: Watershed A through Watershed F. The majority of the northern and northwestern portion of San Bruno, including the Project Site, is located within the 1415.8-acre Watershed A (Kimley Horn 2020). Watershed A discharges to San Bruno Channel (City of San Bruno 2014a). A map of the City's storm drain watersheds is included in Figure 5, *Storm Drain Master Plan Program Areas*, in the HWQE, included as Appendix 3.5-1 to this ~~Draft~~ EIR.

As described in the Regulatory Setting section above, in 2014, the City developed a Storm Drain Master Plan to address storm drain capacity deficiencies citywide, including within Watershed A. The Storm Drain Master Plan considers multiple strategies for inclusion in a Stormwater Capital Improvement Plan to address storm drain capacity exceedances including the installation of a detention basin, which has been considered infeasible, and the installation of additional and/or expanded stormwater pipes in key areas. Identified improvements that are relevant to the Project are described below under the Project Site heading.

Solid Waste Generation, Collection, and Disposal

Recology San Bruno (SWIS No. 41-AA-0014) provides solid waste disposal services citywide, including garbage, recycling, and organic composting services (CalRecycle 2019a). Recology San Bruno transports solid waste to the San Bruno Transfer Station at 101 Tanforan Avenue, where solid waste is processed, treated, and transported to other disposal facilities. The San Bruno Transfer Station has a maximum permitted capacity of 768 tons of solid waste per day (CalRecycle 2019a). From the San Bruno Transfer Station, most of the City's solid waste is transported via trucks to Corinda Los Trancos Landfill (SWIS 41-AA-0002, formerly Ox Mountain Landfill) in Half Moon Bay, which has a remaining capacity of 22,180,000 cubic yards and serves the City of San Bruno as well as numerous other Bay Area jurisdictions (West Yost Associates 2012, CalRecycle 2019b). However, the City distributes limited quantities of its solid waste to numerous other Class III (non-hazardous) landfill facilities. All municipal Class III landfills that received City of San Bruno solid waste in 2018, the year with the most recent available data, are identified below in Table 3.11-2. While the City may have disposed of any permitted type of solid waste, including hazardous wastes at any of these facilities in 2018, only remaining municipal Class III disposal capacity is displayed.

In 2018, the City of San Bruno generated 35,933.74 tons of solid waste, with residents generating approximately 4.4 pounds of solid waste per capita per day and employees generating 10.7 pounds of solid waste per capita per day (CalRecycle 2019e). CalRecycle's 2018 disposal goals for the City of San Bruno were 4.5 pounds per day for residents and 15.9 pounds per day for employees; therefore, the City of San Bruno met its per capita solid waste diversion goals in 2018. Per capita solid waste generation in the City has decreased over time due to numerous waste diversion programs, including source reduction, recycling, composting, incentivization, and public education initiatives (CalRecycle 2019f).

Table 3.11-2. Class III Landfill Facilities that Received City of San Bruno Solid Waste in 2018

Facility	SWIS No.	Remaining Class III Capacity (cubic yards)	Permitted Through
Altamont Landfill & Resource Recovery	01-AA-0009	65,400,000	January 1, 2025
Corinda Los Trancos Landfill	41-AA-0002	22,180,000	January 1, 2034
Fink Road Landfill	50-AA-0001	7,184,701	December 1, 2023
Guadalupe Sanitary Landfill	43-AN-0015	11,055,000	January 1, 2048
Monterey Peninsula Landfill	27-AA-0010	48,560,000	February 28, 2107
Newby Island Sanitary Landfill	43-AN-0003	21,200,000	January 1, 2041
Potrero Hills Landfill	48-AA-0075	13,872,000	February 14, 2048
Recology Hay Road	48-AA-0002	30,433,000	January 1, 2077
Recology Ostrom Road LF Inc.	58-AA-0011	39,223,000	December 31, 2066
Vasco Road Sanitary Landfill	01-AA-0010	7,379,000	December 31, 2022

Source: CalRecycle 2019c, CalRecycle 2019d

Electricity, Natural Gas, and Telecommunication Services

PG&E provides both electric and natural gas services to the City of San Bruno (PG&E 2019). PG&E is a CPUC-regulated public utility in the State of California, and owns, operates, and maintains above- and below-ground electric and natural gas facilities in the City of San Bruno, including substations.

In the City of San Bruno, energy consumption has generally decreased over recent years, despite a growing population. This is likely the result of public awareness of energy conservation needs, as well as increased availability of energy-saving electronic devices and appliances, and other policy-level considerations (County of San Mateo, n.d.). For more information regarding energy use in the City of San Bruno and the Project Site, inclusive of the Phase I Site, refer to Section 3.3, *Energy*, of this ~~Draft~~ EIR.

The City of San Bruno is served by both wired and cellular telecommunications providers. CityNet Services (formally San Bruno Cable TV) and AT&T California provide the City with wired telecommunications services. Mobile cellular service, including mobile data, is provided by major carriers including Verizon Wireless, T-Mobile, Sprint, and AT&T (California Public Utilities Commission 2020).

Project Site and Phase I Site

Water Demand and Conveyance

The Project is located in Pressure Zone 3/5 of the City's water system and is served by a system of 6-inch, 8-inch, and 12-inch pipes that supply potable water to the Project Site, including the Phase I Site, as shown in Figure 3.11-1 (West Yost Associates 2012). These include 10-inch pipes in Cherry Avenue, Bayhill Drive, and Elm Avenue, and an 8-inch pipe in Grundy Lane.

As discussed in Section 3.6, *Land Use and Planning* and shown in Figure 3.11-1, SFPUC ROWs cross the Project Site at numerous locations. SFPUC's San Andreas Pipelines No. 2 and 3 are located within a north-south aligned, 45-foot wide easement along the western edge of the Project Site, immediately west of the western endpoint of Bayhill Drive. The Sunset Supply Line and Crystal Springs Pipeline No. 2 are located in a 40-foot wide easement within the eastern portion of the Project Site within Elm Avenue. Portions of

Bayhill Drive, Cherry Avenue, Elm Avenue, and Grundy Lane overlay these SFPUC easements (SFPUC 2019a-c).

As shown in Table 3.11-3, based on the demand factors in the Project's WSA, existing uses on the Project Site are estimated to consume approximately 241,631 gallons per day (GPD) of water (0.24 MGD) during "Normal" precipitation years, 25,573 GPD (0.03 MGD) of which is consumed by uses on the Phase I Site. Actual metering data indicates that on-site water demand may be less; however, for the purposes of the WSA, the demand factors were not reassessed and the more conservative demand factors from the City's 2012 Water Master Plan were used. In 2010, existing uses on the Project Site consumed a total of 0.14 MGD of water, 0.01 MGD of which was consumed by properties within the Phase I Site (1000 Cherry Avenue and 900 Cherry Avenue) (West Yost Associates 2019a).

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Figure 3.11-1
Existing and Proposed Water and Wastewater Infrastructure

Table 3.11-3. Existing Water Consumption at the Project Site

Use Type	Size (sf)	Demand Rate (GPD)[a]	Total (GPD)
Office			
Phase I Site	196,717	0.13/sf	25,573
Remaining Project Site	1,361,130	0.13/sf	176,947
Subtotal Office	**1,557,847**	**0.13/sf**	**202,520**
Retail	121,846	0.19/sf	23,151
Hotel	79,152 (133 rooms)	120/room	15,960
Total			**241,631 (0.24 MGD)**

Source: West Yost Associates 2019a
Notes:
[a]Unit water demand factors are based on the factors used in the WSA, which utilize the same demand factors as those utilized in the 2012 Water Master Plan for a conservative approach. Hotel unit water use is based on an evaluation of hotel water use within a local San Francisco Bay Area water district's service area from 2013-2017.
sf = square feet
GPD = gallons of water per day
MGD = million gallons of water per day

As discussed in the Water System Hydraulic Evaluation (Appendix 3.11-2), the City's 2012 Water Master Plan includes a new 1.4-MG storage tank improvement in Pressure Zone 3/5 to address an existing water storage capacity deficit. The tank would provide water in the event of an emergency resulting in system failure, such as a major earthquake. Design of this tank is included in the City's FY 20-21 Capital Improvement Program (CIP) and CEQA compliance for this tank is planned to be completed during the design phase.

Wastewater Generation and Conveyance

As shown in Figure 3-11.2, the Project Site is currently served by City-owned sewers located within Cherry Avenue, Bayhill Drive, Traeger Avenue, El Camino Real, San Bruno Avenue West, and Grundy Lane. Sewers onsite range from 6 inches to 20 inches in diameter, with a 12-inch pipe located within Cherry Avenue and an 8-inch pipe located within Grundy Lane, both within the Phase I Site. The Bayhill Shopping Area is served by a system of 8 to 12-inch pipes.

A small portion of the Project Site boundary along San Bruno Avenue West between Traeger Avenue and Elm Avenue (within the proposed housing overlay zone) is serviced by a 6-inch sewer pipe, which continues eastward along San Bruno Avenue and southward along El Camino Real, where it ties into a 10-inch pipe at Kains Avenue. Approximately 150 feet east of the intersection of El Camino Real and Kains Avenue, the 10-inch pipe ties into a new (installed in 2014) 14-inch pipe at Kains Avenue and Hensley Avenue, where it continues eastward.

The sewer pipe located within San Bruno Avenue West is a large (18-20") arterial pipe which follows the Project Site's southern boundary until Traeger Avenue, where it travels north until Bayhill Drive; the sewer pipe then travels eastward to its connection with El Camino Real. This large arterial sewage pipe, in addition to all smaller pipes described above, eventually terminate at the Shaw Road Pump Station in the City of South San Francisco. From the Shaw Road Pump Station, wastewater is conveyed to and treated at the South San Francisco/San Bruno WQCP. All wastewater and sewage generated within the Project Site, inclusive of the Phase I Site, follows this path, discharging into the South San Francisco system through the Tanforan Avenue pipeline segment discussed above.

Figure 3.11-2
Existing and Proposed Wastewater Infrastructure

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The amount of wastewater generated at a property and released into the sanitary sewer system is comparable to the amount of water delivered to the property, with some loss due to human consumption, landscape use, and evaporation. The existing water consumption at the Project Site and Phase I Site is described above.

Storm Drain System

The Project Site contains storm drain pipes up to 48 inches in diameter (Kimley Horn 2020). As shown in Figure 3.11-3, the area west of Cherry Avenue drains to a pipeline in Cherry Avenue which flows to the north and ultimately connects to a 72-inch main trunk line. The area east of Cherry Avenue drains into a collection system of pipes in the roadways including a 24-inch diameter pipe in Grundy Lane and a pipe collection system in Bayhill Drive that ranges in size and increases to a 48-inch diameter pipe at its connection to the 72-inch main trunk line at Elm Avenue. East of Elm Avenue, the 72- inch line continues easterly and southerly until it exits the Project Site near El Camino Real. Information regarding the storm drain pipes located within Cherry Avenue, Bayhill Drive, and at the eastern boundary of the Project Site, south of Bayhill Drive, was obtained from available data including the City's database and Phase I Development plans. However, data was not field verified for size, slope, capacity, and condition. Further discussion of the unconfirmed storm drain pipe information is found below in Impact UT-1.

Existing storm drain pipes serving the Phase I Site include pipes ranging from 12 inches to 48 inches in diameter located in the streets and parking lots along Grundy Lane and Bayhill Drive between Cherry Avenue and Elm Avenue. The primary stormwater collection systems for the Phase I Site are located in Bayhill Drive and Grundy Lane with connections to the 72-inch main trunk line at Elm Ave Avenue. The Grundy Lane pipe is a 24-inch pipe at its connection point and the Bayhill Drive pipeline is a 48-inch pipe at its connection point (Kimley Horn 2020).

All of the pipe networks within the Project Site connect to a 72-inch diameter trunk line located on the eastern portion of the Planning Area that serves as the backbone to the City's 1,415-acre "Watershed A" pipe network identified in the City of San Bruno Storm Drain Master Plan, discussed above. Storm drain facilities within Watershed A included underground pipes, boxes, and channels (Kimley Horn 2020). Stormwater generally drains eastward across the Project Site, following the gradual sloping gradient and exiting the site through a 72-inch pipeline sloping towards the box culvert within El Camino Real near the Project Site's eastern boundary. The City's Storm Drain Master Plan identifies six sites within Watershed A or downstream of the Project Site as stormwater "problem areas." These problem areas are located in Grundy Lane, Bayhill Drive, El Camino Real, Masson Avenue, Mills Avenue, and at the intersection of Huntington and San Mateo Avenue, though actual capacity exceedances are most severe downstream (east) of the Project Site. To resolve Watershed A drainage deficiencies, the Storm Drain Master Plan identifies numerous potential stormwater infrastructure improvements throughout the area, including installation of a new 72-inch stormwater pipeline within the Project Site, or parallel pipe installations (Kimley Horn 2020, City of San Bruno 2014). To date, no improvements have been constructed to address these deficiencies and funding has not been identified.

The Project Site, outside of the Phase I Site, currently incorporates some C.3 Low-Impact Development (LID) designs including a green roof at an existing YouTube building located at 901 Cherry Avenue. In accordance with the City of San Bruno Green Infrastructure Plan, this infrastructure helps with stormwater runoff management by allowing water percolation and infiltration into vegetation rather than directing water immediately into the storm drain system (City of San Bruno 2019).

Figure 3.11-3
Existing and Proposed Stormwater Drainage Infrastructure

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Solid Waste Generation

As described above, Recology San Bruno provides solid waste disposal services citywide, including within the Project Site. Compost, recycling, and garbage pickup are brought by Recology service providers to the San Bruno Transfer Station for processing and sorting; solid waste is then transferred to Corinda Los Trancos Landfill (City of San Bruno 2012).

Table 3.11-4 displays estimated solid waste generation quantities at the Project Site, inclusive of the Phase I Site, based on solid waste generation rates provided by CalRecycle. As shown, the Project Site currently consumes an estimated 121,379 pounds of solid waste per day, 8,420 of which are consumed at the Phase I Site.

Table 3.11-4. Current Estimated Solid Waste Generation Onsite

Address	Current Use	Generation Rate[a]	Units	Estimated Daily Solid Waste Generation (lbs/day)
1000 Cherry Ave.*	office	10.7 lbs/emp./day	94,465 sf	4,043.1
1250 Grundy Lane	office	10.7 lbs/emp./day	67,586 sf	2,892.7
1100 Grundy Lane	office	10.7 lbs/emp./day	101,123 sf	4,328.1
900 Cherry Ave.*	office	10.7 lbs/emp./day	102,252 sf	4,376.4
1150, 1200, 1250 Bayhill Dr.	medical/office	10.7 lbs/emp./day	138,524 sf	5,928.8
950 Elm Ave.	office	10.7 lbs/emp./day	106,099 sf	4,541.0
1050 Bayhill Dr.	hotel	2.9 lbs/room/day	133 rooms	385.7
999, 1001 Bayhill Dr.	office	10.7 lbs/emp./day	140,969 sf	6,033.5
1111 Bayhill Dr.	office	10.7 lbs/emp./day	206,137 sf	8,822.7
851, 801 Traegar Ave.	medical/office	10.7 lbs/emp./day	134,712 sf	5,765.7
850 Cherry Ave.	office	10.7 lbs/emp./day	270,980 sf	11,597.9
899 Cherry Ave.	restaurant	0.005 lbs/sf/day	4,003 sf	20.0
811, 851 Cherry Ave.	commercial/retail/ restaurant	0.046 lbs/sf/day	117,843 sf	54,207.8
901 Cherry Ave.	office	10.7 lbs/emp./day	195,000 sf	8,436.0
		Total lbs/day (Project Site)		**121,379.4**
		Total lbs/day (Phase I Site Only)		**8,419.5**

Source: CalRecycle 2018e, CalRecycle 2019g

[a] Employee-based rates assume a ratio of 250 square feet of office space per employee consistent with the employee estimates in Section 3.8, *Population and Housing*, of this ~~Draft~~ EIR.

* = within Phase I Site

sf = square feet

emp. = employee

lbs = pounds

3.11.1.6 Electricity, Natural Gas, and Telecommunications Systems

The Project Site is served by existing PG&E electric lines in the right-of-way. A substation supporting a 60-kilovolt (kV) electric transmission line is located approximately 0.3 miles southeast of the Project Site, along Pepper Drive. Additionally, a 230-kV PG&E electric transmission line is located along Huntington Avenue, approximately 0.3 miles east of the Project Site (California Energy Commission 2018a). Distribution lines are conveyed from these electric transmission lines to electricity users within the Project Site.

There is a natural gas conveyance pipeline located approximately 0.1 miles west of the Project Site (United States Department of Transportation 2019). An active 19- to 26-inch PG&E natural gas pipeline (Pipeline ID NGL1123) is located approximately 0.1 miles west of the Project Site and approximately 0.3 miles west of the Phase I Site, across I-280 (California Energy Commission 2018b).

The Project Site, inclusive of the Phase I Site, is served by an underground CityNet Services and coaxial cable telecommunications system that extends throughout the site.

3.11.2 Environmental Impacts

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

3.11.2.1 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Specific Plan would have the potential to have a significant effect on utilities and service systems if it would result in any of the conditions listed below.

- Relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects.
- Creation of a need for new or expanded entitlements or resources for sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- A determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Generation of solid waste in exceedance of state or local standards or in excess of the capacity of local infrastructure, or other impediment to the attainment of solid waste reduction goals.
- Failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.11.2.2 Methodology and Approach

Utilities and service systems impacts associated with construction and operation of the Project were assessed and quantified, where applicable, using standard and accepted software tools and techniques.

The utilities and service systems impact analysis consider whether proposed project implementation would result in substantial impacts to utilities systems due to either construction or operational circumstances. Impacts could include exceedances of existing system capacity, a need to expand utilities systems to meet future needs with project implementation, or supply availability impacts, such as potential project-related exceedances of available water resources.

Potential project-related impacts on utilities and service systems were evaluated based on existing capacity and demand data identified in the WSA, WSA Addendum, Water System Hydraulic Evaluation, HWQE, and SSIS, as well as from Site Plans and publicly available sources.

Buildout Scenario

As discussed in Section 2.6.1 in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Project would allow for the development of up to 2.46 million net new square feet of office uses. The Project would also establish housing and mixed-use overlay zones on a total of 20.56 acres in the southern portion of the Project Site that would allow for the development of up to 573 multi-family residential units. Office uses would continue to be allowed in the housing overlay zone, and a mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. To account for the variability resulting from the housing and mixed-use overlay zones, two different buildout scenarios have been developed for purposes of the EIR analysis. The Maximum Office Scenario assumes that no residential construction occurs within the housing and mixed-use overlay zones. The Maximum Housing Scenario assumes that housing is constructed within the furthest range allowable under the Specific Plan, resulting in 573 multi-family residential units. In this scenario, the amount of office development is decreased on the land area within the housing overlay zone where housing is constructed.

This section analyzes the build out scenario which represents the "worst-case" scenario for each individual utility's use. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts, or, in the case of utilities and service systems, the greatest demand. The scenarios selected for evaluation for each utility are as follows:

- **Water.** As demonstrated in the WSA, the Maximum Housing Scenario would generate a greater demand for water than the Max Office Scenario. Therefore, the analysis of water impacts is based on the Maximum Housing Scenario (West Yost Associates 2019a).
- **Wastewater.** As demonstrated in the SSIS, the Maximum Housing Scenario would generate a greater demand for water than the Max Office Scenario, resulting in higher wastewater volume. Therefore, the analysis of wastewater impacts is based on the Maximum Housing Scenario (Woodard & Curran 2019).
- **Solid Waste.** Solid waste impacts are calculated based on population- and employee-based factors. Though the Maximum Housing Scenario would generate greater population, which would generally result in greater potential for solid waste production, employee-generated solid waste in the City of San Bruno occurs at a rate of 10.7 lbs/employee/day, more than twice the resident-generated rate of 4.4 lbs/resident/day (CalRecycle 2019e). Therefore, because the Maximum Office Scenario would have a larger population of employees than the Maximum Housing Scenario, the Maximum Office Scenario is considered the "worst case" scenario for solid waste impacts, and is therefore evaluated below.

As discussed in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the Specific Plan also includes an equivalency exchange program that would allow for up to 180,347 square feet of the new office development included in the EIR buildout projections (Tables 2-3 and 2-4) to be converted to other uses at a rate of 190 square feet of retail commercial use for 1,000 square feet of office use or 640 square feet of hotel use for 1,000 square feet of office use. The utilities consumption estimates presented in this section represent the highest demand that could occur between these three potential land uses. For further discussion of the equivalency exchange program, refer to Appendix 4 of this ~~Draft~~ EIR.

3.11.2.3 Impacts and Mitigation Measures

Impact UT-1a. The Project would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects (Project: Less than Significant with Mitigation)

Impact UT-1b. The Phase I Development would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects (Phase I Development: Less than Significant with Mitigation)

The Project, inclusive of Phase I Development, would involve the relocation, construction, or expansion of numerous utility facilities, as described below in Table 3.11-5. Utility facility relocation, construction, or expansion that would be implemented during the Phase I Development are identified in Table 3.11-5 with an asterisk (*).

Table 3.11-5. Proposed Water, Wastewater, and Storm Drain Improvements

Existing Facility	Location	Proposed Action
8" potable water pipeline*	Elm Avenue (north of Bayhill Drive)	Abandon existing pipeline
8" potable water pipeline*	Grundy Lane	Abandon existing 8-inch pipeline between Cherry Avenue and Elm Avenue Replace with a 10-inch diameter pipeline between Cherry Avenue and a location approximately 350 feet west of Elm Avenue, at the junction where Grundy Lane currently bends northward
N/A	Grundy Lane and Elm Avenue	Install new 10-inch diameter potable water pipeline from the location described above (approximately 350 feet west of Elm Avenue) to Elm Avenue, and install new 10" diameter pipeline southward along Elm Avenue to connect to Bayhill Drive.
10" potable water pipeline*	Bayhill Drive	Abandon existing pipeline from a location approximately 150 feet east of the intersection on Bayhill Drive and Cherry Avenue to a point approximately 450 feet east (along Bayhill Drive) from this location. Replace the segment with a new 12-inch diameter pipeline segment in the same location.
8" sanitary sewer line*	Grundy Lane	Abandon existing 8-inch sanitary sewer pipe in Grundy Lane Replace with new 10-inch sanitary sewer pipe within realigned Grundy Lane
N/A	Grundy Lane	Extend new 10-inch sanitary sewer pipe within realigned Grundy Lane eastward to Elm Avenue
N/A*	Grundy Lane	Install new 30-inch storm drain main within realigned Grundy Lane
72" storm drain main	Eastern edge of the Plan Area (through 1100 Grundy Lane, 950 Elm Avenue, and 999/1001 Bayhill Drive)	Relocate 72-inch storm drain to align with new parcel boundaries. Potentially install a new 72-inch diameter storm drain pipeline parallel to the realigned pipeline. Potentially install an upsized storm drain pipeline instead of a 72-inch storm drain along the new parcel boundaries.

Source: West Yost Associates 2019b, Woodard & Curran 2019.
Notes:
* = Implemented as part of the Phase I Development.

Construction

Construction activities within the Project Site, inclusive of the Phase I Development, would be served by existing utility systems and infrastructure. Because there is adequate utility service available at the Project Site, it is reasonably expected that construction activities requiring electricity, such as lighting, will be serviced by existing electric outlets on site and that no expansions of electrical facilities would be necessary to serve construction activities. Additionally, because it is expected that construction equipment would operate with gasoline- or diesel-powered engines, the need to install additional electric connections is not anticipated. Furthermore, natural gas and telecommunications facilities are generally not used during construction. Limited construction-phase water needs for activities such as dust suppression would be met through the metered use of water conveyed by water trucks and tanks. Because portable restrooms would be temporarily installed on site, construction is not anticipated to result in substantially elevated wastewater generation levels into the local sanitary sewer system. Dewatering activities associated with construction of the proposed parking garages are not expected to result in storm drain capacity exceedance issues because as described in the HWQE, dewatering flows would reach a maximum rate of up to 257 gallons per minute, which is well below system capacity, and dewatering activities would not occur during major storm events in accordance with SWPPP requirements (Kimley Horn 2020). Therefore, Project construction activities would not require the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities to serve construction activities, and impacts would be ***less than significant***.

It is noted that the construction of the utility improvements identified in Table 3.11-5 have the potential to cause significant adverse environmental effects such as fugitive dust generation, dewatering of potentially contaminated water, sedimentation, and erosion. The proposed utility expansions are a part of the Project Description, and the potential impacts that would result from construction of these facilities are evaluated throughout this ~~Draft~~ EIR (e.g., refer to Section 3.2, *Air Quality*, and Section 3.5, *Hydrology and Water Quality*).

The Project would require upsizing the planned water tank for Pressure Zone 3/5 from 1.4 MG to 1.7 MG. As noted above, the City plans to enter the design phase for this tank in FY 20-21 during which it plans to complete any associated CEQA compliance for the tank. Since the tank is already required under existing conditions and would be built with or without the Project and because the expansion in capacity is modest in scale, the expansion of the tank capacity is not expected to result in new significant or more significant impacts than under baseline conditions. Furthermore, CEQA compliance will be completed by the City for the full sizing needed to address existing and existing plus project conditions. As a result, the project would not contribute to any secondary physical impacts due to this expanded water tank infrastructure that will not be fully address in the previously planned CEQA compliance for the tank.

Operation

Project

Water Facilities

The Water System Hydraulic Evaluation in Appendix 3.11-2 of this ~~Draft~~ EIR evaluates the sufficiency of the local potable water system to serve the Project's water demand while meeting the City's water system performance criteria. The analysis evaluates demand under maximum-day-plus-fire-flow conditions and peak hour conditions. The analysis accounts for the proposed pipeline improvements identified in Table 3.11-5 and the Project's projected water demand and assumes a fire flow requirement of 2,500 gpm to

3,000 gpm depending on the land use, which is considered conservative. The analysis concludes that all fire flow locations evaluated in Pressure Zone 3/5 will meet fire flow requirements under Project buildout conditions, and that adequate water pressure would be maintained during peak hour conditions. Therefore, operation of the Project's proposed water facilities would result in a ***less than significant*** impact. No mitigation measures are required.

As noted above, the Project would require upsizing the planned water tank for Pressure Zone 3/5 from 1.4 MG to 1.7 MG. Per Specific Plan Policies 5-1 and 5-7, the project proponent will be required to contribute funding on a fair-share basis to address the upsizing of the water tank. With provision of that fair-share funding, the Project would have a **less than significant** impact related to the emergency water supply.

Wastewater Facilities

Wastewater generated at the Project Site would be conveyed through San Bruno sewer pipelines through Tanforan Avenue into the South San Francisco sewer system and eventually to the Shaw Road Pump Station.. The City does not identify the Tanforan Avenue system as requiring long-term system improvements or updates to serve future wastewater conveyance needs (City of San Bruno 2014b). Wastewater would then be transported finally from the South San Francisco Shaw Road Sewage Pump Station to the South San Francisco/San Bruno Water Quality Control Plant (WQCP) in South San Francisco for treatment (City of South San Francisco n.d.). As described below in Impact UT-3, the treatment facility can support anticipated Project-generated wastewater quantities.

The SSIS in Appendix 3.11-3 of this ~~Draft~~ EIR evaluates the sufficiency of the local wastewater conveyance system to serve the Project's estimated wastewater flow. The analysis evaluates pipeline capacity under peak dry weather flow and peak wet weather flow based on the model used in the City's 2014 Sanitary Sewer Master Plan. The analysis accounts for the proposed pipeline improvements identified in Table 3.11-5 and the Project's projected wastewater demand. The analysis concludes that all sewers within and downstream of the Project Site would have adequate capacity to convey peak dry weather flow without surcharge. The major trunk sewers would flow between roughly 1/3 and 1/2 full under peak dry weather flow conditions. During peak wet weather conditions, all sewer pipelines within the Project Site would have adequate capacity to convey the design storm peak wet weather flow. However, it is possible that in high-flow conditions, the sewer pipe system downstream of the Project Site could operate under "throttle" conditions. "Throttling" is implemented when peak flows exceed full pipe capacity (the rate of flow that can be conveyed by staying within the pipe) based on the pipe's diameter and slope. If the flow rate is greater than the pipe's capacity, the flow will be "throttled", that is, the pipe will not be able to convey the flow as quickly as flows are entering the pipe; correspondingly, the water level will rise higher than the top of the pipe, encroaching into manholes. Under throttle conditions, this encroachment, called "surcharge," begins to back up into upstream pipes (Ju pers. comm.).

A small amount of throttle-related surcharge under peak wet weather flows could occur at two locations downstream of the 24-inch trunk sewer: in Sneath Lane downstream of El Camino Real (manhole 1350) and in Tanforan Avenue at Herman Street (manhole 5370). However, the SSIS identifies that the slight throttle predicted in these pipes would not be enough to cause significant upstream surcharge. The pipes are therefore not considered deficient because there would be approximately 8 to 12 feet of "freeboard" (depth of the water level in manholes below the ground) at these sites (Woodard & Curran 2019).

The SSIS notes that a portion of the Project Site located along San Bruno Avenue West between Traeger Avenue and Elm Avenue (within the proposed housing overlay zone) is currently serviced by a 6-inch sewer pipe which may have insufficient capacity to continue serving this area if the Maximum Housing

Scenario is implemented. If it is determined that the pipe is insufficient to continue serving this portion of the Project Site, the pipe may need to be expanded to meet operational wastewater conveyance needs to prevent operational pipeline failure, which could result in potentially significant environmental impacts beyond levels evaluated in this EIR. **Mitigation Measure UT-1** is required to reduce this significant impact to a less-than-significant level. The mitigation measure requires that all future development within the area served by the 6-inch pipeline, which is shown in Figure 3.11-2, conduct project-specific sewer studies as part of project design. Future development within this area would also be required to coordinate with the City to ensure that proposed projects would not exceed sewer system capacity, and incorporate strategies to address potential capacity exceedances if identified. Should future improvements be required to increase pipeline capacity within this area, such improvements would be outside the scope of this EIR analysis and subject to further CEQA review. Thus, operational Project impacts to wastewater facilities would be ***less than significant with mitigation***. Mitigation Measure UT-1 is not required for the Phase I Development, which is evaluated separately below.

Stormwater Drainage Facilities

As described in greater detail in Section 3.5, *Hydrology and Water Quality*, implementation of the Project could result in an increase in impervious surfaces from approximately 80 percent (current conditions) to approximately 85 percent with full buildout. Because there are existing storm drain facility deficiencies within and downstream of the Project Site, any increase in impervious surfaces could contribute to an increase in the quantity of stormwater runoff, resulting in a significant impact. While the Project would relocate and upgrade the 72-inch storm drain trunk line located at the eastern edge of the Plan Area, through 1100 Grundy Lane, 950 Elm Avenue, and 999/1001 Bayhill Drive, with either a parallel 72-inch pipeline or an upsized line, as shown in Table 3.11-5, the City's Storm Drain Master Plan notes that adding a second 72-inch pipeline or upsizing the existing 72-inch pipeline within the Project Site would not completely address the storm drain capacity deficiencies that are outside the Project Site.

As described in greater detail in Chapter 2, *Project Description* and in the Regulatory Setting, the Project developer would be encouraged to incorporate various C.3 stormwater management techniques including green roofs, pervious pavement, and other biofiltration measures for consistency with the City's Green Infrastructure Plan and compliance with the San Mateo Countywide Water Pollution Prevention Program and the MRP. Compliance with these requirements would substantially reduce runoff levels. Additionally, compliance with Specific Plan Policy 5-16 would require future development within the Project Site to utilize LID techniques to infiltrate, store, detain, evapotranspire, and/or biotreat stormwater runoff close to its source. Nonetheless, the Project would have the potential to result in a significant impact on the City's existing storm drain infrastructure based on the results of the HWQE analysis.

To reduce this impact to a less-than-significant level, project applicants would be required to comply with **Mitigation Measure HWQ-2**, which would require that applicants for future development within the Project Site prepare drainage reports for City review and approval to demonstrate that post-project flows would not exceed pre-project stormwater flows. With compliance with **Mitigation Measure HWQ-2**, impacts pertaining to stormwater drainage facilities resulting from future operation within the Project Site would be ***less than significant with mitigation***.

Natural Gas, Electricity, and Telecommunications Facilities

Implementation of the Project would increase the demand for natural gas, electricity, and telecommunications service at the Project Site. In accordance with the Specific Plan Policy 6-15, future development within the Project Site other than the Phase I Development (discussed below) would be encouraged to employ electric space and water heating equipment and appliances . Electric building efficiency may be improved through the incorporation of additional recommended sustainability measures, potentially including rooftop solar panels to produce electricity onsite, and pursuing LEED Silver or higher building certifications, which would promote building efficiency through numerous design measures. All development will also be required to comply with the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations. This state code includes green and sustainable building requirements to achieve energy efficiency, water efficiency and conversation, reduce construction waste, and material conversation and resource efficiency. The Project would install new connections to the surrounding PG&E electric grid and natural gas system to provide service to future buildings. The Project would also provide connections to communication lines along adjacent roadways. The Project does not propose major upgrades to natural gas, electricity, and telecommunications infrastructure serving the Project Site. Therefore, utility impacts associated with electric, natural gas, and telecommunications facility infrastructure would be ***less than significant***. No mitigation measures are required.

Phase I Development

Water Facilities

As displayed in Table 3.11-5, multiple potable water pipeline facilities would be abandoned, relocated, and expanded to accommodate the Grundy Lane realignment component of Phase I Development. Though some of these facilities are located outside of the direct Phase I Development footprint, they would all be constructed to support operational Phase I Development needs. Though the Project, and subsequently Phase I Development, would increase water use on site, thus increasing the quantity of water that must be conveyed through water facilities, the Phase I Development's LEED Silver Certification would incorporate water use reduction strategies that would reduce anticipated water use levels, thereby minimizing the affects that elevated use may have on water conveyance facilities. Furthermore, the water demand associated with the Phase I Development is accounted for in the Water System Hydraulic Evaluation which concludes that adequate water pressure would be maintained during peak hour conditions, as discussed above in the Project analysis. Therefore, operation of the Phase I Development's proposed water facilities would result in a ***less than significant*** impact. No mitigation measures are required.

Wastewater Facilities

As noted in the Project analysis above, the SSIS, included as Appendix 3.11-3 of this ~~Draft~~ EIR, evaluates the sufficiency of the local wastewater conveyance system to serve the Project's estimated wastewater flow, including the Phase I Development, and determines that all sewers within and downstream of the Project Site would have adequate capacity to convey peak dry and wet weather flows from the Project, inclusive of the Phase I Development. The Phase I Site does not discharge to the 6-inch sewer system along San Bruno Avenue West and would not be subject to Mitigation Measure UT-1. For the reasons stated above in the Project analysis, impacts associated with the Phase I Development would be ***less than significant***. No mitigation measures are required.

Stormwater Drainage Facilities

As described in the HWQE, included as Appendix 3.5-1 to this EIR, storm drainage deficiencies have been identified downstream of the Specific Plan Area, inclusive of the Phase I Site. Existing storm drain pipes serving the Phase I Site range in size from 12 to 48 inches in diameter; these storm drainage facilities connect to the 72-inch storm drain pipe at Elm Avenue within the Project Site. Storm drain infrastructure improvements that would be incorporated as part of the Phase I Development include a new 24-inch diameter public storm drain pipeline that transitions to a 30-inch diameter pipeline in the realigned Grundy Lane, as noted in Table 3.11-5. Because the storm drain system downstream of the Phase I Development is currently prone to exceedances in the system capacity, any increased output to the storm drain system during construction of the Phase I Development could contribute to a significant impact. Excavation activities, which often require dewatering and subsequent discharge to storm drains, could contribute to this impact. However, because the parking facilities that would be constructed as part of Phase I Development will be constructed above the water table, dewatering activities are not anticipated, and construction-related storm drain facility exceedances are not anticipated (EKI 2019).

Additionally, as described in greater detail in Section 3.5, *Hydrology and Water Quality*, the Phase I Development is expected to result in a 1-percent increase in impervious surfaces (from approximately 76 percent impervious surfaces to approximately 77 percent) when compared to current site conditions per the HWQE. Because the City's storm drain infrastructure is prone to exceedances in the system capacity downstream of the Project Site, inclusive of the Phase I Development, the increased stormwater runoff anticipated from this increase in impervious surfaces would be significant.

The Phase I North and South buildings proposed as part of Phase I Development would include green roof designs. A total of approximately 22,000 square feet of green roof is being considered between both Phase I buildings. Additionally, bioretention planters would be installed throughout the landscaped areas to capture and treat stormwater runoff. Compliance with the City's Green Infrastructure Plan, the San Mateo Countywide Water Pollution Prevention Program, and the MRP could reduce stormwater runoff from anticipated levels, however, addition of detention facilities and/or pervious areas may be needed to maintain or reduce stormwater discharge into the public storm drain system to pre-project conditions.

To further reduce the potential for stormwater runoff contributions from the Phase I Site to the storm drain infrastructure capacity exceedances, the applicant would be required to comply with **Mitigation Measure HWQ-2**, which would require applicants for future development within the Project Site, including the Phase I Development, to prepare drainage reports for city review and approval to demonstrate that post-project flows would not exceed pre-project stormwater flows. With implementation of **Mitigation Measure HWQ-2**, Phase I Development impacts on stormwater drainage facilities would be ***less than significant with mitigation***.

Natural Gas, Electricity, and Telecommunications Facilities

As discussed in Section 3.3, *Energy Use*, of this ~~Draft~~ EIR, the Phase I Development would install Energy Star appliances, meet United States Green Building Council's LEED v4 certification standards, and exceed the 2016 Title 24 standards by approximately 16 percent. As discussed in Section 3.4, *Greenhouse Gases*, of this ~~Draft~~ EIR, the sustainability measures incorporated in the Phase I Development would reduce energy use consistent with the 2017 Climate Change Scoping Plan. Like the Project, the Phase I Development would be required to comply with the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations. This state code includes green and sustainable building requirements to achieve energy efficiency. The Phase I Development would install new connections to the surrounding PG&E electric grid and natural gas system to provide service to future buildings. The Phase I Development would also provide connections to communication lines along adjacent roadways. The Phase I Development does not propose major upgrades to natural gas, electricity, and telecommunications infrastructure serving the Phase I Site. Therefore, impacts on natural gas, electricity, and telecommunications facilities would be ***less than significant*** for the Phase I Development. No mitigation measures are required.

Mitigation Measures

The following mitigation measure would reduce Project impacts to a less-than-significant level.

Mitigation Measure UT-1: Require Project-Specific Sewer Studies for Projects Served by the 6-Inch Sanitary Sewer Pipe in San Bruno Avenue east of Traeger Avenue.

Future projects within the area served by the 6-inch sanitary sewer pipe located within San Bruno Avenue east of Traeger Avenue that flows to the 10-inch sanitary sewer pipe in Kains Avenue at El Camino Real (Subcatchment 168C)[2] proposing to discharge into the aforementioned system shall conduct a project-specific Sewer Impact Study prior to the issuance of a building permit. The Sewer Impact Study shall be subject to review and approval by the City of San Bruno Public Works Department. The Sewer Impact Report shall evaluate current sewer capacity and conditions, as well as a maximum anticipated sewer output for the new proposed development, taking land use and space occupancy into consideration. Projects that are found to cause likely strain on existing sewer capacity shall confer with the City of San Bruno Public Works Department to identify strategies that would minimize such impacts, which may include conveyance capacity increases such as sewer pipe replacements. Future improvements not included in this EIR may be subject to subsequent CEQA review.

The following mitigation measure would reduce Project and Phase I Development impacts to a less-than-significant level.

Mitigation Measure HWQ-2: Prepare Drainage Report and Implement Stormwater Control Measures to Avoid Increases in Peak Flows. See Section 3.5, *Hydrology and Water Quality.*

Impact UT-2a. The Project would not result in the creation of a need for new or expanded entitlements or resources for sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years (Project: Less than Significant)

Impact UT-2b. The Phase I Development would not result in the creation of a need for new or expanded entitlements or resources for sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years (Phase I Development: Less than Significant)

Project

Table 3.11-6a describes anticipated operational water uses associated with the Project and the Phase I Development. Water demands were estimated based on standard unit demand factor as described in the Project's WSA, which is included in Appendix 3.11-1a of this EIR. As shown in Table 2-4 of the WSA, the Maximum Housing Scenario would generate a greater demand for water than the Maximum Office Scenario (0.57 MGD compared to 0.56 MGD); therefore, this analysis assumes buildout of the Maximum Housing Scenario.

As shown in Table 3.11-6a, the Project Site, inclusive of Phase I Development and existing demands, would require up to approximately 0.57 MGD of water, representing a net increase in water use of 0.33 MGD when compared to existing uses on the Project Site. The Phase I Development would utilize a total of approximately 0.06 MGD of water, a net increase of approximately 0.04 MGD when compared to existing uses on the Phase I site. In either case, the WSA's evaluation of whether there is adequate water supply to

[2] Does not include Phase I Development.

serve the Project is conservatively based on the total water demand and does not factor in a reduction for the removal of on-site uses.

As noted above, implementation of the Bay-Delta Plan Amendment would result in reduced SFPUC water deliveries to the City. In March 2021, SFPUC sent a letter to BAWSCA[3] (Appendix 3.11-1b, Attachment B) presenting water supply reliability modeling results for use in member agencies' 2020 UWMPs. BAWSCA then evaluated the impacts for each SFPUC water wholesale customer (also in Appendix 3.11-1b, Attachment B). For San Bruno, the water supply reliability results indicated a potential SFPUC water supply shortfall of up to 19 percent in the fourth and fifth years of a multiple year dry period if the Bay-Delta Plan Amendment were not implemented and up to 54 percent in the fourth and fifth years of a multiple year dry period if the Bay-Delta Plan Amendment were implemented as it currently stands.

Tables 3.11-6b and 3.11-6c summarize the City's projected water supply and demand with implementation of the Project, assuming no Bay-Delta Plan Amendment (Table 3.11-6b) and full implementation of the Bay-Delta Plan Amendment (Table 3.11-6c). As noted above, the demand estimates are based on the City's draft 2020 UWMP, which accounts for the estimated demand of the Project and the Phase I Development (West Yost Associates 2021). Also, in accordance with the Regional GSR Project, projected groundwater supplies under normal hydrologic conditions assume that groundwater use is minimized (i.e., "put" operations). During single dry and multiple dry years, projected groundwater supplies are assumed to be equal to 2.10 million gallons per day (MGD).

Tables 3.11-6b and 3.11-6c reflect "bookends" for water supply reliability projections. SFPUC is currently implementing projects to help mitigate the effects of the Bay-Delta Plan Amendment should it be implemented. These projects are further discussed in the WSA Addendum included in Appendix 3.11-1b of this EIR.

As shown in Table 3.11-6c, even with the City's anticipated dry year demand reductions shown in Table 3.11-1b, supply deficits would still occur during the first, fourth, and fifth years of a multiple dry year hydrologic condition. The maximum total demand reduction required to meet the projected water supply is approximately 24 percent (total water supply of 3.61 MGD versus a normal year demand of 4.78 MGD, not accounting for the 20 percent demand reduction) by 2045, in the fourth and fifth years of a multiple dry year hydrologic condition.

Although the impact of the Bay-Delta Plan Amendment is severe, a maximum demand reduction of approximately 20 percent in single dry years and the first three years of a multiple dry year hydrologic condition (total water supply of 3.87 MGD versus a normal year demand of 4.78 MGD) and a demand reduction of up to 24 percent in the fourth and fifth years of a multiple dry year hydrologic condition can still be achieved by implementation of Stages 2 and 3 of the City's WSCP.[4] While the City is in the process of updating its WSCP, the working draft WSCP indicates a Stage 3 Shortage Level would build upon the Stage 2 Shortage Level by increasing monitoring of water use (meter reading), implementing mandatory water allotments for all accounts, and increasing rates and penalties for excess water use.

~~As a participant in the Regional Groundwater Storage and Recovery Project, the City of San Bruno currently purchases the majority of its municipal water resources from surface water agencies, primarily the SFPUC, during normal and wet years, and relies on local groundwater resources to supplement SFPUC~~

[3] Letter from Paula Kehoe, SFPUC Director of Water Resources to Danielle McPherson, Senior Water Resources Specialist, BAWSCA, dated March 30, 2021.

[4] The City's WSCP will be updated in the 2020 UWMP to include six water shortage stages (Stages 1–6) to align with the State's six standard water shortage levels. Each stage corresponds to progressive ranges of up to 10, 20, 30, 40, 50 percent, and greater than 50 percent shortages from the normal supply condition.

~~resources in dry years. The SFPUC provides an Individual Supply Guarantee of 3.25 MGD to the City of San Bruno; however, as described in greater detail in the Regulatory Setting section above, the Regional Groundwater Storage and Recovery Project permits the City of San Bruno to pump limited groundwater resources during wet years for maintenance and water quality blending purposes.~~

~~The approximately 0.57 MGD of water that would be required under the Project (inclusive of Phase I Development and current water use) accounts for approximately 17.5 percent of the City of San Bruno's allotted 3.25 MGD Individual Supply Guarantee from the SFPUC. Thus, while the 3.25 MGD Individual Supply Guarantee would be sufficient to continue serving the City of San Bruno with implementation of the Project, as displayed in Table 3.11-1, projected normal-year water demands from 2020-2040 in the City of San Bruno (without the Project) are expected to exceed the quantity provided under the Individual Supply Guarantee (demand during dry years will also increase, but to a less extent due to mandatory conservation measures). In accordance with the Regional Groundwater Storage and Recovery Project, the SFPUC provides surface water to the City beyond the 3.25 MGD contracted amount in normal years, and in return, the City pumps less groundwater. The Project's WSA forecasts that with implementation of the Regional Groundwater Storage and Recovery Project, a total water supply of 5.40 MGD will be available in 2020-2040 during normal years, while 5.07 MGD will be available during single-dry years and 4.67 MGD will be available during multiple-dry years (West Yost Associates 2019). The WSA concludes that these projected supplies would be sufficient to meet the demand of the Project in addition to forecasted growth in the City.~~

It should also be noted that Specific Plan Policy 6-15 would require future development to be capable of achieving at least a Silver standard in Leadership in Energy and Environmental Design (LEED) Certification. Specific Plan Policies 5-4, 5-5, and 5-17 would require developers to promote water efficiency through the use of water efficient appliances and water-efficient landscaping strategies to reduce demands. These water conservation strategies would further reduce the Project's water demand. However, because it is speculative to presume exactly how much they would reduce water use onsite, they are not factored into the Project's estimated water demand shown in Table 3.11-6a to maintain a conservative analysis.

Conclusion

As indicated above, without implementation of the Bay-Delta Plan Amendment, the City would generally have sufficient water supplies during normal and dry hydrologic conditions to meet the City's projected water demands, including the Project's estimated water demand, in addition to the City's existing and other planned future uses.

With implementation of the Bay-Delta Plan Amendment, the City would need to implement Stage 3 of its WSCP to reduce normal year water demands by approximately 24 percent during the fourth and fifth years of a multiple dry year hydrologic condition. A 24 percent reduction in normal year water demands is a reasonable reduction that can be achieved by implementing a Stage 3 water shortage as defined in the City's WSCP. During the most severe part of the recent drought in 2015 to 2016, the City implemented a Stage 2 Shortage Level and was able to reduce water demand by about 20 percent from 2013 water demand, which exceeded the 8 percent conservation standard mandated by the State Board. Other BAWSCA member agencies achieved water demand reductions between 10 to 40 percent. In summary, all BAWSCA member agencies exceeded their mandated conservation standard. The graphic provided in Appendix 3.11-1b, Attachment D shows the conservation standard and percent reduction for each BAWSCA member agency as reported by BAWSCA.

Actions that the SFPUC is taking in response to a potential water supply shortage are expected to mitigate the water supply shortage by some, as yet unquantified, amount. Therefore, the water supply and demand summaries provided in Tables 3.11-6b and 3.11-6c should be considered as the best case (without the Bay Delta Plan Amendment) and worst case (full implementation of the Bay-Delta Plan Amendment without mitigating actions) water supply conditions for the City.

~~Notwithstanding~~ Therefore, as demonstrated in the WSA and WSA Addendum prepared for the Project and summarized above, the Project would not require new or expanded water supply entitlements or resources, and impacts would be ***less than significant***. No mitigation is required.

Table 3.11-6a. Anticipated Water Demand for the Project (Maximum Housing Scenario) and Phase I Development[a]

Proposed Land Use	Unit Demand Factor[b]	Existing	Existing Water Demand (MGD)	Full Quantity at Proposed Buildout (including Existing to remain)	Future Water Demand (existing + buildout) (MGD)	Net Increase in Water Demand (MGD)
Project (inclusive of Phase I Development)						
Office	0.13 gpd/sf	1,557,847 sf	0.20	3,500,743 gsf	0.46	0.26
Retail	0.19 gpd/sf	121,846 sf	0.02	121,846 gsf	0.02	0
Hotel	120 gpd/room	133 rooms	0.02	133 rooms	0.02	0
Residential	120 gpd/du	0 du	0.00	573 du	0.07	0.07
Total					**0.57 MGD**	**0.33 MGD**
Phase I Development						
Office	0.13 gpd/sf	138,524 sf	0.02	440,000 sf	0.06	0.04
Total					**0.06 MGD**	**0.04 MGD**

Source: West Yost Associates 2019
Notes:
[a] Landscaping is not considered a significant source of water usage under this analysis, because landscaping plans would include water-saving strategies such as bioretention planters, turf, and drought-tolerant vegetation.
[b] Unit Demand Factors account for irrigation demand (West Yost Associates 2016).
Key:
MGD = millions of gallons per day
sf = square feet
du = dwelling unit

Table 3.11-6b. Summary of City of San Bruno Water Demand Versus Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years – Without Bay-Delta Plan Amendment

Hydrologic Condition		MGD		
		2050	**2040**	**2045**
Normal Year				
Available Water Supply		5.39	5.35	5.36
	Total Water Demand	**3.53**	**4.78**	**4.78**
	Potential Surplus (Deficit)	1.86	0.57	0.58
	Precent of Shortfall of Demand	-	-	-
Single Dry Year				
Available Water Supply		5.39	5.35	5.36
	Total Water Demand (10% reduction from normal year)	**3.18**	**4.30**	**4.30**
	Potential Surplus (Deficit)	2.21	1.05	1.06
	Percent Shortfall of Demand	-	-	-
Multiple Dry Years				
Multiple Dry Year 1	Available Water Supply	5.39	5.35	5.36
	Total Water Demand (10% reduction from normal year)	**3.18**	**4.30**	**4.30**
	Potential Surplus (Deficit)	2.21	1.05	1.06
	Percent Shortfall of Demand	-	-	-
Multiple Dry Year 2	Available Water Supply	5.39	5.35	5.36
	Total Water Demand (20% reduction from normal year)	**2.82**	**3.82**	**3.82**
	Potential Surplus (Deficit)	2.57	1.53	1.54
	Percent Shortfall of Demand	-	-	-
Multiple Dry Year 3	Available Water Supply	5.39	5.35	5.36
	Total Water Demand (20% reduction from normal year)	**2.82**	**3.82**	**3.82**
	Potential Surplus (Deficit)	2.57	1.53	1.54
	Percent Shortfall of Demand	-	-	-
Multiple Dry Year 4	Available Water Supply	5.39	5.35	4.74
	Total Water Demand (20% reduction from normal year)	**2.82**	**3.82**	**3.82**
	Potential Surplus (Deficit)	2.57	1.53	0.92
	Percent Shortfall of Demand	-	-	-
Multiple Dry Year 5	Available Water Supply	5.39	5.35	4.74
	Total Water Demand (20% reduction from normal year)	**2.82**	**3.82**	**3.82**
	Potential Surplus (Deficit)	2.57	1.53	0.92
	Percent Shortfall of Demand	-	-	-
Source: West Yost Associates 2021				

Table 3.11-6c. Summary of City of San Bruno Water Demand Versus Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years – With Bay-Delta Plan Amendment

		MGD		
	Hydrologic Condition	**2050**	**2040**	**2045**
Normal Year				
	Available Water Supply	5.39	5.35	5.36
	Total Water Demand	**3.53**	**4.78**	**4.78**
	Potential Surplus (Deficit)	1.86	0.57	0.58
	Precent of Shortfall of Demand	-	-	-
Single Dry Year				
	Available Water Supply	4.20	4.16	3.88
	Total Water Demand (10% reduction from normal year)	**3.18**	**4.30**	**4.30**
	Potential Surplus (Deficit)	1.02	(0.14)	(0.42)
	Percent Shortfall of Demand	-	3.3%	9.8%
Multiple Dry Years				
Multiple Dry Year 1	Available Water Supply	4.20	4.16	3.88
	Total Water Demand (10% reduction from normal year)	**3.18**	**4.30**	**4.30**
	Potential Surplus (Deficit)	1.02	(0.14)	(0.42)
	Percent Shortfall of Demand	-	3.3%	9.8%
Multiple Dry Year 2	Available Water Supply	3.90	3.87	3.88
	Total Water Demand (20% reduction from normal year)	2.82	3.82	3.82
	Potential Surplus (Deficit)	1.08	0.05	0.06
	Percent Shortfall of Demand	-	-	-
Multiple Dry Year 3	Available Water Supply	3.90	3.87	3.88
	Total Water Demand (20% reduction from normal year)	**2.82**	**3.82**	**3.82**
	Potential Surplus (Deficit)	1.08	0.05	0.06
	Percent Shortfall of Demand	-	-	-
Multiple Dry Year 4	Available Water Supply	3.90	3.66	3.61
	Total Water Demand (20% reduction from normal year)	**2.82**	**3.82**	**3.82**
	Potential Surplus (Deficit)	1.08	(0.16)	(0.21)
	Percent Shortfall of Demand		4.2%	5.5%
Multiple Dry Year 5	Available Water Supply	3.90	3.66	3.61
	Total Water Demand (20% reduction from normal year)	**2.82**	**3.82**	**3.82**
	Potential Surplus (Deficit)	1.08	(0.16)	(0.21)
	Percent Shortfall of Demand	-	4.2%	5.5%
Source: West Yost Associates 2021				

Phase I Development

The water demand associated with the Phase I Development is included in the estimated water demand for the Project presented in the WSA and summarized above. As noted, the WSA and WSA Addendum concludes that the Project, inclusive of the Phase I Development, would not require new or expanded water supply entitlements or resources. there are sufficient water entitlements and water resources to serve the City of San Bruno through at least 2040~~ through a combination of purchased SFPUC surface water resources, the mandate permitting SFPUC to require jurisdictions to purchase up to 5.52 MGD of water resources to minimize groundwater pumping under the Regional Groundwater Storage and Recovery Project, and local groundwater resources (City and County of San Francisco 2013)~~.

Additionally, the Phase I Development would incorporate sustainability features to meet a Silver standard in Leadership in Energy and Environmental Design (LEED) Certification, which would improve water efficiency through creative sustainability design strategies to further conserve water use onsite. Specific Plan Policies 5-5, and 5-17 would require developers to promote water efficiency through the use of water efficient appliances and water-efficient landscaping strategies to reduce demands. These water conservation strategies would minimize the amount of water that would be used for landscaping purposes, further reducing the Phase I Development's water demand. However, because it is speculative to presume exactly how much they would reduce water use onsite, they are not factored into the Project's estimated water demand shown in Table 3.11-6a to maintain a conservative analysis. Notwithstanding, as demonstrated in the WSA and WSA Addendum prepared for the Project, inclusive of the Phase I Development, new or expanded water supply entitlements or resources would not be required to serve Phase I Development operation, and impacts would be ***less than significant***.

Impact UT-3a. Project implementation would not result in an exceedance of existing wastewater treatment capacity (Project: Less than Significant)

Impact UT-3b. Phase I Development implementation would not result in an exceedance of existing wastewater treatment capacity (Phase I Development: Less than Significant)

Project

As described in greater detail under Impact UT-2, Project implementation would increase on-site water consumption when compared to current conditions. Accordingly, a corresponding increase in wastewater production would occur. This analysis assumes that the Project's wastewater generation is equal to its water consumption. This is a conservative assumption since not all water that is delivered to a property is conveyed to the wastewater system due to human consumption, landscape use, and evaporation loss.

Based on the water analysis in Impact UT-2, the Project would result in a net increase in wastewater generation of 0.33 MGD when compared to existing uses on the Project Site (for a total of 0.57 MGD if 2010 metering data is assumed for existing uses). The Phase I Development's share of the net increase in wastewater usage would be 0.04 MGD (or a total of 0.06 MGD if 2010 metering data is assumed for existing uses). This analysis conservatively assumes the higher net increase.

The new sewer line would tie into the existing sanitary sewer and wastewater treatment network, which follows the Project Site's southern boundary until Traeger Avenue, where it travels north until Bayhill Drive then proceeds eastward to its connection with El Camino Real. All wastewater and sewage generated within the Project Site, including the Phase I Site, would discharge to the pipelines at Tanforan Avenue and the South San Francisco WQCP (Woodard & Curran 2019). Because the Tanforan Avenue pipeline segment currently discharges approximately 1.91 MGD under average dry weather flow conditions, 3.11 MGD under peak dry weather flow conditions, and 12.1 MGD under peak wet weather flow conditions, and the City does not identify this site as an area in need of long-term improvements, the addition of up to 0.33 MGD of wastewater to the pipeline resulting from Project development is considered less than significant. Additionally, as described in greater detail above, the Shaw Road Pump Station, and the South San Francisco WQCP all have sufficient capacity to receive wastewater generated by the Project, inclusive of Phase I Development.

Furthermore, the South San Francisco/San Bruno WQCP currently treats approximately 9 MGD of wastewater under average dry weather flow conditions, a quantity substantially below its dry weather peak flow capacity of 13 MGD. The WQCP also operates below its 62 MGD treatment capacity for wet weather flow conditions, and is currently undergoing facility improvements, including installation of a new storage basin to retain excess flows and increase treatment capacity during wet weather conditions (EKI 2018, Carollo Engineers 2011). It is therefore expected that the wastewater treatment plant has sufficient capacity to treat the Project's net increase of 0.33 MGD of wastewater (City of South San Francisco No Date, Carollo Engineers 2019). The Specific Plan's water conservation policies noted above in Impact UT-2 could also result in proportionate reductions in the Project's wastewater generation. However, since these measures are not mandated, they are not factored into this analysis. Based on the above, Project-related operational impacts on wastewater treatment capacity would be ***less than significant.*** Mitigation measures are not required.

Phase I Development

Wastewater that would be generated as part of the Phase I Development would be a portion of that analyzed above, under Project-related impacts. Because wastewater treatment facilities have sufficient capacity to serve the Project, they would also have the capacity to serve the Phase I Development. Therefore, operational impacts on wastewater treatment capacity from the Phase I Development would be ***less than significant.***

Impact UT-4a. The Project would not result in an exceedance of state or local solid waste standards or of the capacity of local infrastructure, non-compliance with federal, state, and local solid waste management and reduction statues and regulations, or other impediments to attaining solid waste reduction goals (Project: Less than Significant)

Impact UT-4b. The Phase I Development would not result in an exceedance of state or local solid waste standards or of the capacity of local infrastructure, non-compliance with federal, state, and local solid waste management and reduction statues and regulations, or other impediments to attaining solid waste reduction goals (Phase I Development: Less than Significant)

Project

Construction

Construction and demolition activities generate solid waste materials requiring disposal, such as steel, concrete, asphalt, and lumber. However, the State of California Green Building Standards Code (CALGreen) requires that at least 65 percent of all debris from demolition of any residential or commercial building be diverted from landfills via recycling, salvage, and other similar programs. Construction recycling would be further enforced by **Mitigation Measure GHG-1**, which requires that future developers within the Project Site implement BAAQMD-recommended construction best management practices, which includes the recycle and reuse of at least 50 percent of construction waste or demolition materials. Therefore, it is expected that through adherence to regulatory requirements, construction waste associated with future development within the Project Site that would be disposed of at landfills would be substantially reduced, and impacts under this criterion would be ***less than significant***.

Operation

Development within the Project Site would result in an increased site occupancy when compared to current conditions, subsequently increasing the amount of operational solid waste that would be generated at the Project Site. As described in greater detail in Section 3.7, *Population and Housing*, the Maximum Office Scenario (inclusive of Phase I Development) is estimated to generate a maximum of 9,840 net new employees in the Project Site, with no onsite residents. Comparatively, the Maximum Housing Scenario (inclusive of Phase I Development) would generate a maximum of 7,772 net new employees in the Project Site and up to 1,656 onsite residents. Though the Project would result in indirect population growth within both the City of San Bruno and other nearby jurisdictions, it would be speculative to presume the exact quantities of solid waste that this indirect population would generate, and to which landfills their solid waste would be transported; solid waste generated by indirect population growth is therefore not included in this analysis. Estimated net new Project-related direct operational solid waste generation (inclusive of Phase I Development), is displayed below in Table 3.11-7, according to the most recent solid waste diversion rates and per-capita and per-employee solid waste generation rates for the City of San Bruno provided by CalRecycle.

As displayed in Table 3.11-7, the Maximum Office Scenario (inclusive of Phase I Development) is estimated to generate 19,215.1 tons, or 48,037.7 cubic yards, of solid waste annually, a quantity 2,708.5 tons greater than the 16,506.6 tons of solid waste that would be generated under the Maximum Housing Scenario (inclusive of Phase I Development). The Maximum Office Scenario is therefore carried forward in this analysis for a conservative approach.

Of the approximately 19,215.1 tons (48,037.7 cubic yards) of solid waste that would be generated annually under the Maximum Office Scenario inclusive of Phase I Development), approximately 2,372.5 tons (5,931.3 cubic yards) of solid waste would be generated by the Phase I Development annually. Combined with 2018 City of San Bruno solid waste disposal quantities (35,934 tons, or 89,835 cubic yards), this would result in a total combined quantity of approximately 55,149.1 annual tons including solid waste quantities that are currently generated citywide, or 137,872.7 cubic yards of solid waste generated citywide from both Maximum Office Scenario (inclusive of Phase I Development) and non-Project sources citywide (CalRecycle 2019c, CalRecycle 2019e).

The San Bruno Transfer Station is capable of processing and re-distributing up to 768 tons per day of solid waste. Based on the City's 2018 total solid waste generation of 35,934 tons, the San Bruno Transfer Station currently processes and re-distributes approximately 98.5 tons of City of San Bruno solid waste daily.[5] Incorporating anticipated Maximum Office Scenario (inclusive of Phase I Development) post-diversion solid waste generation quantities of approximately 52.6 daily tons of solid waste into this value, with Project implementation the City of San Bruno would direct 151.1 daily tons of solid waste for processing and redistribution at the San Bruno Transfer Station. Thus, San Bruno Transfer Station would have sufficient facility capacity to receive, process, sort, and re-distribute Project-generated operational solid waste.

[5] This value was calculated based on the City of San Bruno's 2018 total solid waste generation of 35,934 tons, which, divided by 365 days per year, equates to approximately 98.5 daily tons of solid waste that is sorted and transferred through the San Bruno Transfer Station.

Table 3.11-7. Anticipated Net New Solid Waste Generation for the Maximum Housing Scenario, Maximum Office Scenario, and Phase I Development

Proposed Land Use Type	Net New Individuals	Disposal Rate[a] (lbs/capita/day)	Net New Daily Solid Waste Generation (tons)	Net New Annual Solid Waste Generation (tons)	Net New Annual[b] Solid Waste Generation (cubic yards)
Max Housing Scenario (including Phase I Development)					
Employees					
Office	7,772	10.7	41.6	15,176.8	37,941.9
Residents					
On-Site	1,656	4.4	3.6	1,329.8	3,324.4
Total			**45.2 (tons, daily)**	**16,506.6 (tons, annual)**	**41,266.3 (cubic yards, annual)**
Max Office Scenario (including Phase I Development)					
Employees					
Office	9,840	10.7	52.6	19,215.1	48,037.7
Residents					
On-Site	0	4.4	0	0	0
Total			**52.6 (tons, daily)**	**19.215.1 (tons, annual)**	**48,037.7 (cubic yards, annual)**
Phase I Development					
Employees					
Office	1,206	10.7	6.5	2,372.5	5,931.3
Residents					
On-Site	0	4.4	0	0	0
Total			**6.5 (tons, daily)**	**2,372.5 (tons, annual)**	**5,931.3 (cubic yards, annual)**

Source: CalRecycle 2019e.
Notes:
[a] Solid Waste generation rates are based on the 2018 generation rates identified by CalRecycle for the City of San Bruno (4.4 pounds per capita per day for residents and 10.7 pounds per capita per day for employees).
[b] While there is no direct conversion between tons and cubic yards, CalRecycle estimates that one cubic yard of "Household Trash" is equivalent to approximately 800 pounds. This conversion rate was used to approximate the amount of net new solid waste that would be generated from proposed project operation (CalRecycle 2018b).
Key:
lbs/capita/day = pounds per capita per day
lbs = pounds

Most solid waste generated by the City of San Bruno is brought from San Bruno Transfer Station to Corinda Los Trancos Landfill, which has a remaining capacity of 22,180,000 cubic yards and is permitted for continued service through 2034. This capacity is sufficient to support proposed project solid waste disposal needs through 2034 or facility closure. However, full buildout of the Project would not be completed until 2040, at which point a new facility would receive the City's solid waste. The City of San Bruno currently has not identified a secondary landfill site that would continue to serve the City past 2034.

While the City of San Bruno has not yet identified a landfill site that would serve the City or the Project Site past 2034, there is sufficient Class III municipal waste capacity at numerous regional landfills that provided the City with limited disposal services in 2018 (CalRecycle 2019c). As displayed above in Table 3.11-2, the combined remaining Municipal Class III capacity of landfills that both served the City of San Bruno in a limited capacity in 2018 and would remain open for solid waste disposal services beyond 2034 (Guadalupe Sanitary Landfill, Monterey Peninsula Landfill, Newby Island Sanitary Landfill, Potrero Hills Landfill, Recology Hay Road, and Recology Ostrom Road LF, Inc.) is approximately 164,343,000 cubic yards. As displayed in Table 3.11-7, the Maximum Office Scenario (inclusive of Phase I Development), would generate a maximum of 48,037.7 annual cubic tons of solid waste, approximately 0.03 percent of the combined capacity of these landfills beyond 2034. Therefore, while Corinda Los Trancos Landfill is expected to cease operations in 2034, six years prior to full Project buildout, there is sufficient landfill capacity at other regional facilities to support operational Project solid waste disposal needs for the foreseeable future beyond 2034. The City of San Bruno and their solid waste disposal service provider, Recology, would coordinate with these and/or other facilities to secure future solid waste disposal sites. Therefore, operational Project-related capacity exceedances of local solid waste disposal infrastructure would not be anticipated to occur.

AB 1826 requires businesses and mixed-use residential developments that generate more than four cubic yards of solid waste per week to incorporate organic recycling programs, such as composting. Given the Project's magnitude, it is expected that it would meet the four cubic yard solid waste generation threshold under both the Maximum Office Scenario and the Maximum Housing Scenario, thereby reducing anticipated quantities of organic waste materials from landfill disposal. Therefore, while up to 19,215.1 tons (48,037.7 cubic yards) of solid waste would be generated annually under the Maximum Office Scenario (inclusive of Phase I Development), it is anticipated that some of that solid waste would be redirected in compliance with AB 1826. Additionally, implementation of **Mitigation Measure GHG-2** would require future commercial development within the Project Site to incorporate waste minimization programs including recycling, composting, and reusable product use programs, which would further reduce the amount of solid waste that would be generated onsite and directed to landfills. Therefore, through adherence to California solid waste diversion regulations and implementation of **Mitigation Measure GHG-2**, actual Maximum Office Scenario solid waste production is expected to be less than the 19,215.1 annual tons approximated in Table 3.11-7. Project implementation would therefore be consistent with local, regional, and state solid waste standards and reduction goals, and would not exceed local transfer station or landfill capacity infrastructure. Therefore, operational Project impacts associated with these criteria would be ***less than significant.*** No mitigation is required.

Phase I Development

Construction

For the reasons stated above in the Project analysis, construction waste impacts associated with Phase I Development would be ***less than significant***. No mitigation is required.

Operation

As described above and in Table 3.11-7, Phase I Development would generate a total of approximately 6.5 daily tons, or 2,372.5 annual tons of solid waste, which would be transported to the San Bruno Transfer Station. In meeting v4 LEED Silver Certification standards, the Phase I Development would adopt waste minimization programs including recycling, composting, and reusable product use programs, which would reduce the amount of solid waste that would be generated onsite and directed to landfills. Additionally, compliance with AB 1826 would reduce operational Phase I Development solid waste generation beyond these maximum anticipated levels.

Full Phase I Development buildout is anticipated to be completed in 2023, which is well before the anticipated 2034 Corinda Los Trancos Landfill facility closure date, and the Corinda Los Trancos Landfill would have capacity to accommodate the estimated solid waste from buildout of the Phase I Development. However, Phase I Development operation is expected to continue beyond 2023. As described above, the combined remaining Municipal Class III capacity of landfills that both served the City of San Bruno in a limited capacity in 2018 and would remain open for solid waste disposal services beyond 2034 is sufficient to support long-term operation of the full Project Site, inclusive of Phase I Development. Therefore, there would be sufficient landfill capacity at other regional facilities to support Phase I Development operational solid waste disposal needs for the foreseeable future, and operational Phase I Development impacts related to solid waste standard or local infrastructure exceedances would be ***less than significant***. No mitigation is required.

3.11.3 Cumulative Impacts

Impact C-UT-1. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects (Project, including Phase I Development: Less than Significant with Mitigation)

The cumulative context for potential cumulative impacts related to the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities is the area served by the physical utility system networks that serve the Project Site, inclusive of the Phase I Development.

As would occur with the impacts described above, activities required to support the construction, relocation, and expansion of utility facilities have the potential to cause significant adverse environmental effects such as fugitive dust generation, dewatering of potentially contaminated water, sedimentation, and erosion. If such impacts were to occur in close proximity to similar activities happening at any of the cumulative projects identified in Table 3.0-1, cumulatively considerable adverse impacts could occur. Potential construction-phase cumulative impacts that may result from such activities are discussed in greater detail in the Cumulative Impacts discussions in Section 3.2, *Air Quality*, and Section 3.5, *Hydrology and Water Quality*.

Water Facilities

The modeling presented in the Water System Hydraulic Evaluation is based on the City's Waster Master Plan which accounts for projected water demands in the City due to General Plan buildout, the Transit Corridors Plan (out to 2030), and other anticipated future development (out to 2035) in addition to those of the Project (West Yost Associates 2019b).. The Water System Hydraulic Evaluation analysis concludes that all fire flow locations evaluated in Pressure Zone 3/5 will meet fire flow requirements under Project buildout conditions including other forecasted development, and that adequate water pressure would be maintained during peak hour conditions. As noted above, the City's Water Master Plan calls for a 1.4 MG water tank for Pressure Zone 3/5 and the Water Master Plan takes into account future growth in the City as described above. The water tank will need to be expanded to 1.7 MG to accommodate the project's increased operations and emergency water demands. Per Specific Plan Policies 5-1 and 5-7, the project proponent will be required to contribute funding on a fair-share basis to address the upsizing of the water tank. With provision of that funding, the project would not contribute to a deficit in emergency water supply. Therefore, cumulative impacts would be ***less than significant*** for the Project and the Phase I Development, which is included in the Project's estimated water demand.

Wastewater Treatment Facilities

The SSIS evaluates estimated wastewater contributions from cumulative projects, taking into consideration that many of the cumulative projects identified in Table 3.0-1 are not served by the trunk sewers that serve the Project Site (Woodard & Curran 2019). The SSIS identified that operational Project-related wastewater flows would not result in adverse cumulative impacts in combination with the other cumulative projects in consideration, with the potential exception of the area served by the 6-inch sewer pipeline in San Bruno Avenue east of Traeger Avenue, discussed above in Impact UT-1. Implementation of **Mitigation Measure UT-1** would ensure that the Project's contribution to cumulative impacts in this area is ***less than cumulatively considerable***.

Since the Phase I Development does not drain into the 6-inch San Bruno Avenue system, cumulative impacts for the Phase I Development would be ***less than significant***, as demonstrated in the SSIS.

Stormwater Drainage Facilities

Project implementation would result in an increase in impervious surfaces onsite from approximately 80 percent to approximately 85 percent, which, when paired with potential increases in impervious surfaces at other nearby project sites, has the potential to cause adverse cumulative stormwater impacts downstream. Because the stormwater system serving the Project Site and downstream areas in San Bruno is prone to exceedances in the system capacity, any of the cumulative projects that contribute to the same stormwater facilities as those that serve the Project Site could further stress the already deficient system. If the Project, in combination with these projects, were to contribute to stormwater drainage facility exceedances beyond existing levels, cumulative impacts would be significant.

However, cumulative projects would be subject to their own CEQA review, C.3, LID, and respective mitigation requirements which would minimize stormwater runoff potential. Additionally, through adherence to **Mitigation Measure HWQ-2**, the Project, including the Phase I Development, would be required to prepare a drainage report and implement stormwater control measures to avoid increases in peak stormwater flows when compared to pre-project conditions. Additionally, while not necessary to avoid a significant impact, to further minimize demands for stormwater facilities, all future development proposed within the Project Site would also be required to comply with multiple Specific Plan policies that would help manage and reduce potential stormwater outputs, thus reducing the potential for project operation to contribute to exceedances in the storm drain system capacity. Applicable Specific Plan Policies include a requirement that all future development in the planning area achieve at least LEED Silver Certification (Specific Plan Policy 6-15) and incorporate Low-Impact Development (LID) techniques to improve water retainment onsite (Specific Plan Policy 5-16). Although Specific Plan Policy 6-15 is not applicable to the Phase I Development, the Phase I Development design would meet United States Green Building Council's LEED v4 Silver certification standards). These policies will substantially reduce runoff into the City's existing stormwater facilities.

Therefore, while there is potential for the Project to contribute to a significant cumulative impact on stormwater drainage facilities, the project's contribution would be not cumulatively considerable with incorporation of **Mitigation Measure HWQ-2**. Therefore, the Project's contribution to construction impacts on stormwater drainage facilities would be ***less than cumulatively considerable*.** Impacts of the Phase I Development would also be ***less than cumulatively considerable*** with implementation of **Mitigation Measure HWQ-2.**

Natural Gas, Electricity, and Telecommunications Facilities

Existing and planned gas and electric service would be provided to meet the needs of other cumulative projects, as required by the California Public Utilities Commission (CPUC), which obligates PG&E to provide service to its existing and potential customers. Similarly, cumulative projects could require expanded facilities to provide telecommunications service. It is not possible to identify the precise demands that other projects would place on gas, electric, and telecommunications facilities; however, individual projects would be subject to their own CEQA review and mitigation. Given the Project's energy-saving design features and the fact that the Project does not propose major upgrades to natural gas, electricity, and telecommunications infrastructure serving the Project Site, the Project and Phase I Development's impacts would be ***less than cumulatively considerable***.

Mitigation Measures

With implementation of the following mitigation measure, the Project's contribution to cumulative impacts on wastewater infrastructure capacity would be ***less than cumulatively considerable***.

> **Mitigation Measure UT-1: Require Project-Specific Sewer Studies for Projects Served by the 6-Inch Sanitary Sewer Pipe in San Bruno Avenue east of Traeger Avenue.** See **Impact UT-1**, above.

With implementation of the following mitigation measure, the Project's contribution and the Phase I Development's contribution to cumulative impacts on storm drain capacity would be ***less than cumulatively considerable***.

> **Mitigation Measure HWQ-2: Prepare Drainage Report and Implement Stormwater Control Measures to Avoid Increases in Peak Flows.** See Section 3.5, *Hydrology and Water Quality.*

Impact C-UT-2. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in the creation of a need for new or expanded entitlements or resources for sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years (Project, including Phase I Development: Less than Significant)

The cumulative context area for potential cumulative impacts related to the water supply include the areas served by purchased SFPUC water resources in the City of San Bruno; all the cumulative projects identified in Table 3.0-1 are within this service area.

Project

As described above, Project operation would contribute to long-term citywide water demand increases associated with new development within the Project Site, inclusive of the Phase I Development. In combination with implementation of the additional development projects identified in Table 3.0-1 which are currently either under construction or in the approval stage, long-term citywide water demand increases would be further elevated beyond the demands anticipated by the Project alone. If the Project, in combination with the cumulative projects, were to result in water demands in excess of available quantities, a significant cumulative impact would occur. However, the project's ~~Water Supply Assessment~~ WSA (Appendix 3.11-1a) and WSA Addendum (Appendix 3.11-1b) includes projected future City water demands out to 2040 along with the project demands. Thus, long-term water resources serving the City of San Bruno are sufficient to supply foreseeable long-term development including both the Project and forecasted growth described in the ~~Water Supply Assessment~~ WSA and WSA Addendum.

Because the City has sufficient water resources through at least 2040 to support long-term water demand increases associated with forecasted citywide development and population growth, cumulative impacts would be ***less than significant***.

Phase I Development

The Phase I Development is a component of the Project and is included in the Project's overall estimated water demand presented in Impact UT-1. Therefore, the reasons stated above in the Project analysis, cumulative impacts on water resources and entitlements would be ***less than significant*** for the Phase I Development.

Impact C-UT-3. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not lead to exceedance of existing wastewater treatment capacity (Project, including Phase I Development: Less than Significant)

The cumulative context area for potential cumulative impacts related to wastewater treatment include the South San Francisco/San Bruno WQCP service area; all of the City of San Bruno cumulative projects identified in Table 3.0-1 are within this service area. The service area also includes the City of South San Francisco and the Town of Colma. There is no formal agreement about the proportion of wastewater treatment capacity entitled to each city, however, the agreement is specific that the share of operating costs is proportional to use (City of San Bruno 2009).

Project

Based on conservative estimates in which water use and wastewater generation are based on equivalent rate factors, the Maximum Housing Scenario (inclusive of Phase I Development), would generate a total of 0.57 MGD of wastewater, 0.33 MGD of which would be new when compared to current onsite wastewater generation conditions. Currently, the City of San Bruno generates an average of approximately 2.9 MGD of wastewater which is conveyed to and treated at the South San Francisco/San Bruno WQCP (Woodard & Curran 2019). Therefore, with the additional 0.33 MGD of wastewater that would be generated by the Project, the City would convey a total of 3.23 MGD of wastewater to the WQCP for treatment.

New planned development citywide, including the additional projects identified in Table 3.0-1 that are currently under construction or in the approval process, would also generate additional wastewater at rates similar to their anticipated water use rates by proposed land use type. If the wastewater that would be generated by these projects, in combination with the Project (inclusive of the Phase I Development), would substantially increase San Bruno's share of the wastewater treatment capacity at the South San Francisco/San Bruno WQCP, the result would be a cumulatively significant impact. Estimated wastewater generation of the cumulative projects included in Table 3.0-1, based on rate factors equivalent to those used for the Project, are described in Table 3.11-8.

The South San Francisco/San Bruno WQCP currently treats approximately 9 MGD of wastewater under average dry weather flow conditions, which is substantially below its maximum capacity of 13 MGD under average dry weather flow days. The South San Francisco/San Bruno WQCP therefore has sufficient capacity to treat the additional 0.33 MGD of wastewater that would be generated by the Project, as well as the additional 0.14 MGD that would be generated by the cumulative projects evaluated in Table 3.11-8. While future development within the Cities of San Bruno and South San Francisco and the Town of Colma would also contribute to cumulative demand, given the remaining capacity at the WQCP (4 MGD) and the ongoing wet-weather treatment and storage capacity improvements at the WQCP (EKI 2018, Carollo Engineers 2011), it is unlikely that additional development outside of San Bruno would result in an exceedance of capacity. Currently, the City of San Bruno generates an average of approximately 2.9 MGD of wastewater that is discharged to the South San Francisco/San Bruno WQCP. Therefore, wastewater generation resulting from implementation of the Project and all cumulative projects would remain below the City's allotted 3.5 MGD treatment agreement with the City of South San Francisco, and would not exceed WQCP treatment system capacity. Therefore, the Project's contribution to San Bruno's share of increased flows would be ***less than cumulatively considerable***.

Table 3.11-8. Estimated Cumulative Wastewater Generation in San Bruno to be Conveyed to the South San Francisco/San Bruno WQCP

Cumulative Project	Single Family DUs (160 GPD per single family DU)[a]		Multi-Family DUs (120 GPD per multi-family DU)		Office (sf) (0.13 GPD per sf)		Commercial (sf) (0.19 GPD per sf)		Hotel (rooms) (120 GPD per room)		Total (GPD)
	DUs	GPD	DUs	GPD	sf	GPD	sf	GPD	Rooms	GPD	
Plaza Apartments: 406 San Mateo Avenue	--	--	83	9,960	--	--	6,975	1,325	--	--	11,285
841 San Bruno Avenue	--	--	--	--	15,223	1,979	--	--	--	--	1,979
Skyline College Residential Project: 3300 College Drive	40	6,400	30	3,600	--	--	--	--	--	--	10,000
271 El Camino Real	--	--	24	2,880	--	--	--	--	--	--	2,880
Mills Park Plaza: 715 El Camino Real			400	48,000			45,000	8,550			56,550
111 San Bruno Avenue	--	--	62	7,440	--	--	7,600	1,444	--	--	8,884
500 Sylvan Avenue	--	--	9	1,080	--	--	--	--	--	--	1,080
Glenview Terrace: 2880 San Bruno Avenue	29	4,640	--	--	--	--	--	--	--	--	4,640
160 El Camino Real	--	--	--	--	--	--	--	--	34	4,080	4,080
APN - 020-012-160 (vacant parcel west of 901 Cherry Avenue)	--	--	--	--	287,000	37,310					37,310
Total, Combined (GPD)											**138,688**
Total, Combined (MGD)											**0.14**

Source: Woodard & Curan 2019
Notes:
[a] A rate factor of 160 GPD per single family dwelling unit was applied based on the City of San Bruno's 2012 Water System Master Plan (West Yost Associates 2012).

Phase I Development

As described above, the Project, inclusive of Phase I Development, would not result in a cumulatively considerable impact on wastewater treatment capacity. Therefore, the Phase I Development's impact would also be ***less than cumulatively considerable.***

Impact C-UT-4. The Project, inclusive of the Phase I Development, in combination with past, present, and reasonably foreseeable future projects, would not result in an exceedance of state or local solid waste standards or of the capacity of local infrastructure, non-compliance with federal, state, and local solid waste management and reduction statues and regulations, or other impediments to attaining solid waste reduction goals (Project, including Phase I Development: Less than Significant)

The cumulative context area for potential Project-related cumulative impacts related to solid waste standards or capacity exceedances includes areas and developments in the City of San Bruno that would be served by the same solid waste management facilities that serve the Project Site (the San Bruno Transfer Station and Corinda Los Trancos Landfill) and could combine with the Project to exceed the City's disposal capacity at these facilities.

Project

Project construction, as well as construction activities required for the cumulative projects identified in Table 3.0-1, would generate substantial solid waste, including demolition waste. However, all of these projects would be required to comply with the CALGreen Code, which requires that owners of all new construction projects divert at least 65 percent of their construction waste from landfills. Developers would also be required to comply with **Mitigation Measure GHG-1**, which requires that future developers within the Project Site implement BAAQMD-recommended construction best management practices, which includes the recycle and reuse of at least 50 percent of construction waste or demolition materials, and Chapter 10.23: *Recycling and Diversion of Debris from Construction and Demolition* of the City's municipal code, which includes reporting requirements as well as a requirement that developers salvage the maximum feasible amount of recyclable and reusable materials prior to demolition (City of San Bruno 2019). All cumulative projects would be required, at a minimum, to comply with the CALGreen Code and Chapter 10.23 of the City's municipal code, which would substantially reduce construction-generated solid waste. Therefore, through compliance with CALGreen Code and local requirements, the Project's contribution to cumulative construction impacts would be less than cumulatively considerable, and impacts would be ***less than significant***.

In operation, the Project, as well as the development projects included in Table 3.0-1 would result in an increase in the City's total generated solid waste quantities. This additional solid waste, in combination with the solid waste that would be generated by the Project (inclusive of Phase I Development), would be sorted at the San Bruno Transfer Station and eventually brought to Corinda Los Trancos landfill for disposal until planned landfill closure in 2034. As displayed in Table 3.11-~~6~~7, the Maximum Office Scenario (inclusive of Phase I Development), would generate the greatest quantity of solid waste through both direct onsite generation and indirect generation from offsite project-generated City of San Bruno residents.

In total, it is estimated that the Maximum Office Scenario (inclusive of Phase I Development), would result in a maximum anticipated generation of 52.6 daily tons of solid waste, estimated to result in approximately 48,037.7 annual cubic yards of solid waste. The cumulative projects identified in Table 3.0-1 are expected to generate solid waste at rates equivalent to those used to evaluate Project impacts (approximately 4.4 pounds per capita per day of solid waste per resident and approximately 10.7 pounds per capita per day of solid waste per employee based on current per capita solid waste generation rates in the City of San Bruno).

As displayed above in Table 3.11-2, the combined remaining Municipal Class III capacity of landfills that both served the City of San Bruno in a limited capacity in 2018 and would remain open for solid waste disposal services beyond the anticipated Corinda Los Trancos Landfill closure date in 2034, (Guadalupe Sanitary Landfill, Monterey Peninsula Landfill, Newby Island Sanitary Landfill, Potrero Hills Landfill, Recology Hay Road, and Recology Ostrom Road LF, Inc.), is approximately 164,343,000 cubic yards. The annual estimated 48,037.7 cubic tons of solid waste that would be generated by the Maximum Office Scenario (inclusive of Phase I Development), would total approximately 0.03 percent of the combined capacity of these landfills beyond 2034. The amount of residential dwelling units and commercial/office square footage proposed in all of the cumulative projects identified in Table 3.0-1 combined is significantly less than what is proposed under the Maximum Office Scenario; thus, it is anticipated that these projects combined would generate less than 48,037.7 annual tons of solid waste. It is therefore anticipated that there is sufficient landfill capacity to serve both the proposed project and the cumulative projects at Corinda Los Trancos landfill through 2034, and at Guadalupe Sanitary Landfill, Monterey Peninsula Landfill, Newby Island Sanitary Landfill, Potrero Hills Landfill, Recology Hay Road, and/or Recology Ostrom Road LF, Inc. beyond 2034.

Because Corinda Los Trancos Landfill serves numerous Bay Area jurisdictions, growth within these jurisdictions could also contribute to cumulative solid waste disposal demands on the facility. However, many of these jurisdictions are also served by the facilities listed above which would offer continued operation beyond 2034. Therefore, cumulative growth in other jurisdictions is not expected to contribute to local solid waste infrastructure capacity exceedances.

Additionally, while it is expected that local and regional landfills would have sufficient capacity to support both Project solid waste generation and cumulative project solid waste generation for the foreseeable future, AB 1826 requires businesses and mixed-use residential developments that generate more than four cubic yards of solid waste per week to incorporate organic recycling programs, such as composting. The Project, as well as numerous cumulative projects, would meet the four cubic yard solid waste generation threshold for AB 1826 compliance. It is therefore anticipated that some of that solid waste would be redirected in compliance with AB 1826, further minimizing anticipated solid waste generation levels. Thus, the Proposed Project's cumulative impacts pertaining to solid waste standard or facility exceedances, as well as compliance with federal, state, and local solid waste management and reduction statues and regulations, would be less than cumulatively considerable, and impacts would therefore be ***less than significant***.

Phase I Development

Like proposed project construction, Phase I Development construction activities as well as construction activities required for the cumulative projects identified in Table 3.0-1, would generate construction and demolition waste. However, through compliance with CALGreen Code and Chapter 10.23: *Recycling and Diversion of Debris from Construction and Demolition* of the City's municipal code, Phase I Development's contribution to cumulative impacts associated with construction waste would be less than considerable, and impacts would be ***less than significant***.

Because the Project inclusive of the Phase I Development would not result in significant cumulative operational impacts related to solid waste generation and disposal, the Phase I Development also would not result in such cumulative exceedances, and cumulative impacts would be ***less than significant***.

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Chapter 4
Other CEQA Considerations

Significant and Unavoidable Environmental Impacts

Section 21100(b)(2)(A) of the California Environmental Quality Act (CEQA) requires that a ~~Draft~~ Environmental Impact Report (~~Draft~~ EIR) identify any significant environmental effects that cannot be avoided if a project is implemented. Many impacts identified for the Project would either be less than significant or could be mitigated to a less-than-significant level. However, the Project would result in significant impacts that cannot be mitigated to less-than-significant levels; these impacts are listed below.

Based on the analysis provided in Chapter 3 of this ~~Draft~~ EIR, the Project would have the following significant and unavoidable impacts. The Phase I Development would not result in any significant and unavoidable impacts.

- **Impact AQ-2a: Increases in Criteria Pollutants. The Project could result in a cumulatively considerable net increase of a criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard during construction and operation.** Construction emissions resulting from individual projects developed under the Specific Plan could exceed BAAQMD's regional reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter (PM) thresholds. **Mitigation Measures AQ-1 through AQ-6** would reduce regional emissions of ROG, NOx, and PM below BAAQMD's regional thresholds. **Mitigation Measure AQ-6** requires the purchase of mitigation credits for construction emissions. Similarly, long-term operation of individual projects developed under the Specific Plan could generate emissions in excess of BAAQMD's project-level thresholds. **Mitigation Measure TRA-1** and **AQ-7** would reduce regional emissions of individual projects developed under the Specific Plan below BAAQMD's regional thresholds, resulting in a less-than-significant impact. **Mitigation Measure AQ-7** requires the purchase of mitigation credits for operational emissions. Based on recent experience of offsets being feasibly available for other large recent projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and thus that emissions can be reduced below threshold levels. Should offsets programs be available for future development, criteria pollutant emissions under the Specific Plan would be less than significant with mitigation. However, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, air quality impacts are conservatively assumed to be ***significant and unavoidable*.**
- **Impact AQ-3a: Health Risks from Toxic Air Contaminants (TACs) and Criteria Pollutant Concentrations. The Project could result in the exposure of sensitive receptors to substantial TAC and criteria pollutant concentrations during construction and operation.** Construction activities of future development projects under the Specific Plan would generate diesel particulate matter (DPM) and fine particulate matter (PM2.5) that could expose adjacent receptors to significant health risks. Without specific details on the locations of building footprints or their construction schedules, a quantitative evaluation of potential health risk impacts resulting from the Project is not possible. **Mitigation Measure AQ-8** requires project-level evaluations of construction- and operational-related health risks for future projects within 1,000 feet of sensitive

receptors. Because the results of future project-level evaluations are unknown, and because it remains possible that mitigation for future projects may be inadequate to reduce health risk impacts to levels below Bay Area Air Quality Management District (BAAQMD) thresholds, this impact would be ***significant and unavoidable*** after mitigation. As discussed above under **Impact AQ-2**, construction emissions resulting from individual projects developed under the Specific Plan could exceed BAAQMD's regional ROG, NOx, and PM thresholds. Similarly, long-term operation of individual projects developed under the Specific Plan could generate emissions in excess of BAAQMD's project-level thresholds. For the reasons stated above under **Impact AQ-2**, health impacts related to regional criterial pollutants quality impacts are conservatively assumed to be ***significant and unavoidable.***

- **Impact C-AQ-1a: Cumulatively Considerable Increases in Criteria Pollutants. The Project, in combination with past, present, and reasonably foreseeable future projects, could result in a cumulatively considerable net increase in criteria pollutants after mitigation for which the Project region is a nonattainment area for an applicable federal or State ambient air quality standard.** As discussed above under **Impact AQ-2**, construction emissions resulting from individual projects developed under the Specific Plan could exceed BAAQMD's regional ROG, NOx, and PM thresholds. Similarly, long-term operation of individual projects developed under the Specific Plan could generate emissions in excess of BAAQMD's project-level thresholds. According to BAAQMD's thresholds of significance for air pollutants, 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, for the reasons stated above under **Impact AQ-2**, cumulative operational air quality impacts are conservatively assumed to be ***significant and unavoidable.***
- **Impact C-AQ-2a: Cumulative Health Risks from TACs. The Project's TAC emissions, in combination with past, present, and reasonably foreseeable future project TAC emissions, could contribute to cumulative exposure health risks of sensitive receptors. The Project could also locate new receptors where they could be exposed to cumulative health risks due to cumulative TAC emissions.** Existing nearby DPM sources and the Project could contribute to a cumulative health risk for sensitive receptors near the Project Site. For instance, the installation or operation of new stationary sources of TACs (e.g., generators) on the Project Site could result in significant PM2.5 concentrations. In addition, future development projects under the Specific Plan could generate DPM and PM2.5 that could expose adjacent receptors to significant health risks that cannot be mitigated, as discussed in **Impact AQ-3**. Therefore, it is conservatively assumed that the cumulative health impacts from TAC emissions would be ***significant and unavoidable*** ~~after mitigation~~, and that the Project's contribution would be cumulatively considerable.
- **Impact TRA-5a: Project-Generated Vehicle Miles Travel~~l~~ed (VMT). The Project would be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT, even with implementation of a Transportation Demand Management Program.** The Project would exceed the VMT per service population threshold of 21.7 VMT by 23 percent under Existing-Plus-Project conditions. **Mitigation Measure TRA-1** requires Specific Plan tenants to implement a TDM program. However, studies indicate that implementation of a typical TDM program for office uses, in communities with similar transportation and land use context to San Bruno, would result in a VMT reduction of approximately 10 to 15 percent. Therefore, even with mitigation, it is unlikely that the Project can achieve the level of reduction in VMT needed to achieve the State's long-term climate goals. This would result in a ***significant and unavoidable*** impact related to State CEQA Guidelines Section 15064.3 (b).

Significant Irreversible Changes

Section 15126.2(d) of the CEQA Guidelines requires that a ~~Draft~~ EIR evaluate "significant irreversible environmental changes which would be caused by the proposed project should it be implemented," and identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents.

Such significant irreversible environmental changes may include current or future uses of non-renewable resources, secondary or growth-inducing impacts that commit future uses of nonrenewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. According to CEQA Guidelines section 15126.2(d), irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified. In general, such irreversible commitments include the use of resources such as energy and the materials to construct a project as well as the energy and natural resources (including water) that would be required to sustain the project and its inhabitants or occupants over the usable life of the project.

No significant environmental damage, such as that resulting from accidental spills or the explosion of a hazardous material, is anticipated with implementation of the Project. Compliance with federal, state, and local regulations would ensure that construction and operation activities at the Project Site would not result in the release of hazardous materials into the environment and that associated impacts would be less than significant (refer to Chapter 3, under *Hazards and Hazardous Materials*). As discussed in Section 3.5, *Hydrology and Water Quality*, required water quality permit(s) would be obtained prior to discharge of dewatering water to the storm drain. Further, Specific Plan Policy 6-22 requires all dewatering occurring during construction be held in a baker tank for testing to ensure there is no contamination prior to discharge into the storm drain system. As such, no irreversible changes, such as those that may occur from construction of a large-scale mining project, or other industrial project, would result from development of the Project.

Consumption of nonrenewable resources includes increased energy consumption, conversion of agricultural lands, and lost access to mining reserves. As discussed in Chapter 3, under *Agriculture and Forestry Resources*, the Project Site is located in a developed, urban area of San Bruno. No existing agricultural lands would be converted to non-agricultural uses. As discussed in Chapter 3, under *Mineral Resources*, the Project Site does not contain known mineral deposits and is not a locally important mineral resource recovery site; thus, development of the Project would not result in the loss of access to mining reserves. As discussed in Section 3.3, *Energy Use*, demolition and construction associated with the Project would require the use of energy, including energy produced from nonrenewable resources. Construction-related energy usage and consumption would occur intermittently throughout the course of Specific Plan buildout, and would vary substantially depending on the level of activity, length of construction period, specific construction operations, types of equipment, and number of personnel. The Phase I Development is estimated to consume approximately 1,850,359 million British thermal units (BTUs) over its three-year construction period. The Project would use the most energy-efficient equipment available to meet state and local goals for criteria air pollutants and greenhouse gas emissions reductions and would not have a measurable effect on regional energy supplies or on peak energy demand, resulting in a need for additional capacity. As discussed in Section 3.4, *Greenhouse Gases*, future projects under the Specific Plan including the Phase I Development would be required to comply with Mitigation Measure GHG-1, which requires construction contractors to implement BAAQMD's recommended best management practices including ensuring that alternative fueled (e.g. biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet, using local building materials of at least 10 percent (sourced from within 100 miles of the Planning Area); and recycling and reusing at least 50 percent of construction waste and demolition materials. This measure would reduce the amount of fossil fuel consumed during construction activities and the energy intensiveness associated with new building materials and disposed construction and demolition waste by requiring construction contractors to implement BAAQMD's recommended best management practices, specifically those associated with alternative fuel use and recycling. Additionally, as discussed in Section 3.2, *Air Quality*, Mitigation Measure AQ-3 would require all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities (not including the Phase I Development) to use renewable diesel. Overall, as a temporary activity, construction of the Project, inclusive of the Phase I Development, would not be considered inefficient or wasteful. Nonetheless, fossil fuels used during construction would represent an irreversible use of oil and natural gas.

Once operational, land uses within the Specific Plan would generate vehicle trips, which would consume gasoline and diesel (and to some extent electricity). As discussed in Section 3.10, *Transportation and Circulation*, the Project would be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), concerning Vehicle Miles Traveled (VMT). The Phase I Development would, after mitigation, be consistent with CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT. Mitigation Measure TRA-1 would reduce both annual gasoline and diesel usage by 13 percent by requiring a reduced drive alone percentage, an annual monitoring study, and ongoing monitoring and evaluation. Nonetheless, the use of gasoline, diesel, and electricity (depending on its source) to power vehicles with the Project would represent an irreversible use of those resources. Subsequent developments with the Project and the Phase I Development would also result in the consumption of electricity and natural gas for operational uses such as power, emergency generators, heating, cooling, and landscaping activities. To the extent that electricity supplying the Project comes from renewable sources (hydropower, sun, wind, geothermal), it would not represent an irreversible use of resources. To the extent that electricity supplying the Project comes from non-renewable sources (natural gas, coal, nuclear), it would represent an irreversible use of those resources. The Project would not require the construction of major new utility lines to deliver energy or natural gas because these services are already provided in the area. The Project would require new and upgraded water, wastewater, and storm drain pipelines within the boundaries of the Project Site. Build out of the Specific Plan and the Phase I Development would require the use of nonrenewable materials such as steel, copper, and other metals. The source metals used, unless they come from recycled materials, would represent an irreversible use of resources.

Project construction and operation would require the irreversible commitment of limited, slowly renewable, and non-renewable resources. However, the consumption of such resources would not be considered substantial or wasteful. Therefore, although irreversible environmental changes would result from the Project, such changes are concluded to be less than significant, and the limited use of nonrenewable resources that would be required by Project construction and operation is justified

Growth-Inducing Impacts

Section 15126.2(e) of the CEQA Guidelines states that an EIR should discuss "…the ways in which the Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Because the Phase I Development is a component of the overall Project, this discussion of the Project's growth-inducing impacts accounts for the Phase I Development. Growth can be induced in a number of ways, including through the elimination of obstacles to growth, through the stimulation of economic activity within the region including the generation of significant employment opportunities, or through precedent-setting action. CEQA requires a discussion of how a project could increase population, employment, or housing in the areas surrounding the Project as well as an analysis of the infrastructure and planning changes that would be necessary to implement the project.

This section of the EIR discusses the manner in which the Project could affect growth in the City of San Bruno and the larger Bay Area. In accordance with the CEQA Guidelines, Section 15126.2(e), this discussion of growth inducement is not intended to characterize the Project as necessarily beneficial, detrimental, or of little significance to the environment. This growth inducement discussion is provided for informational purposes so that the public and local decision-makers have an appreciation of the potential long-term growth implications of the Project. Although CEQA requires disclosure of growth inducement effects, an EIR is not required to anticipate and mitigate the effects of a particular project on growth in other areas. Growth inducement has the potential to result in an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Since the general plan of a community defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in that community.

In discussing growth inducement, it is useful to distinguish between direct and indirect growth. Direct growth occurs on a project site as a result of new facilities (buildings) being constructed, or an increase in developed space. As discussed in Chapter 2, *Project Description*, direct growth associated with the Project could amount to up to 2.46 million net new square feet of office uses if no residential units are developed, or up to 1.9 net new square feet of office uses if the maximum allowable number of residential units are developed (i.e., 573). A mix of both use types could be developed as long as the maximum permitted overall development is not exceeded. Direct growth associated with the Phase I Development would include approximately 440,000 square feet of new office and accessory space.

Indirect growth occurs beyond a Project Site but is stimulated by the project's direct growth. Indirect growth is tied to increased direct and indirect investment and spending associated, such as expenditure patterns of employees associated with the project, with the new direct growth. For example, if a project were implemented, future workers would spend money in the local economy, and the expenditure of that money would result in additional jobs. The indirect jobs generated by a project (referred to as the "multiplier effect") tend to be relatively near the places of employment but may occur at more distant locales as well. When CEQA refers to induced growth, CEQA means all growth—direct, indirect, and otherwise defined.

As discussed in Section 3.8, *Population and Housing*, the Project's Maximum Office Scenario is evaluated for its potential to cause population, employment, and housing growth because it would generate the greatest number of new residents, employees, and housing units inside and outside the city when considering both direct and indirect growth. The Maximum Office Scenario includes the Phase I Development and therefore accounts for the growth associated with the Phase I Development.

As discussed in Section 3.8, *Population and Housing*, the Maximum Office Scenario would directly generate an estimated 9,840 new employees through the construction of new office space. The estimated employment growth would exceed ABAG's employment growth projection for the City and would comprise approximately 14 percent of the expected employment growth in the county. Employment impacts are largely social and economic impacts, and CEQA establishes that social and economic impacts are not considered significant impacts unless they contribute to, or are caused by, physical impacts on the environment (Public Resources Code Section 21080). Thus, the Project's exceedance of ABAG's employment growth projection for the City under the Maximum Office Scenario is not, in and of itself, a significant impact when considered at a project level, and Project employees would not directly create significant impacts related to population or housing demand.

However, Project employees could induce growth by generating population and an associated demand for housing (i.e., indirect growth). As discussed in Section 3.8, *Population and Housing*, based on the current percentage of San Bruno residents who also work in the city (13.6 percent), 1,338 of the Project's 9,840 new employees could live in San Bruno while the remaining 8,502 could live elsewhere in the Bay Area.

When considering employees' average household size, the 1,338 employees living in San Bruno could result in an estimated 2,510 new residents in the city. These new residents could generate the need for an additional 869 new units of housing in the City of San Bruno (as a worst-case scenario). According to ABAG's *Projections 2040*, the addition of 869 new housing units and 2,510 new residents would account for approximately 29 percent of the housing growth and 25 percent of the population growth expected in the city between 2020 and 2040. Therefore, based on ABAG projections, indirect growth associated with the Project would be within the range of anticipated growth for the city.

The remaining 8,502 employees who could reside outside of San Bruno could generate population growth totaling approximately 15,947 persons when considering employees' average household size, and a corresponding need for an additional 5,695 new units of housing outside of San Bruno (as a worst-case scenario). According to ABAG's *Projections 2040*, these additional housing units and residents, when combined with those in San Bruno, would account for approximately 15.7 percent of the population growth and 19.5 percent of the housing growth expected in San Mateo County between 2020 and 2040, or 1.1 percent of the population growth and 1.2 percent of the housing growth expected in the Bay Area. Therefore, based on ABAG projections, indirect growth with the Project would be within the range of anticipated growth for the county and Bay Area.

The Project would result in infill development within an existing urban environment. As discussed in Section 3.11, *Utilities and Service Systems,* infrastructure improvements required to serve the Project would include new and upgraded water, wastewater, and storm drain pipelines within the boundaries of the Project Site. The required infrastructure improvements would consist of localized improvements intended to serve Project-related demand. These improvements would not extend infrastructure into other unserved or underserved areas and, as such, would not indirectly generate population growth. The Project is also located within a Priority Development Area (PDA), an area identified by ABAG/MTC as a priority area for accommodating regional growth.

The analysis in Section 3.8, *Population and Housing*, also evaluates cumulative population and housing growth resulting from the Project in combination with the reasonably foreseeable future projects (refer to Table 3.8-6) and background growth. The cumulative analysis found that within the city of San Bruno, the increase in the number of residents under the Project, in combination with the reasonably foreseeable future projects and background growth, would be consistent with the population and housing growth projected within the city by regional forecasts and therefore would not constitute substantial unplanned population growth in the city. The Project and most of the cumulative projects in San Bruno would be located on infill sites and in proximity to many transit lines. The combination of the Project and the reasonably foreseeable projects within San Bruno would not require an extension or expansion of roads, utilities, or infrastructures that would result in changes to the environment and constitute a significant impact. However, in the Bay Area, there would be cumulatively more residents than planned and a greater demand for housing than planned. The Project's contribution to this growth is considerable because it would result in an increase in population growth (up to 18,457 new residents under the Maximum Office Scenario), as well as housing demand (up to 6,564 new units), outside the city of San Bruno. Current housing shortages relative to a mismatch between housing demand and housing supply are resulting in some Bay Area employees choosing to live in areas on the edge of or outside the Bay Area because of housing affordability issues. Meeting the Bay Area's cumulative housing demand in outlying areas can result in secondary environmental impacts as further discussed in Section 3.8.3 in Section 3.8, *Population and Housing*. The evidence necessary to make a significance conclusion regarding the physical consequences of growth will be available only during environmental review of general plans, specific plans, and proposed projects in other jurisdictions for addressing cumulative growth over time. As such, although a conclusion can be made that the Project would result in unplanned population and housing growth outside the city of San Bruno, a significance determination concerning the specific secondary physical impacts on the environment due to unplanned growth outside of San Bruno is not possible; thus, no considerable contribution to cumulative significant impacts is identified in the analysis in Section 3.8, *Population and Housing*.

Cumulative Impacts

CEQA Guidelines (Section 15355) define cumulative impacts as "…two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The combination of the Project with other foreseeable projects in the vicinity or region affected by the Project defines the cumulative scenario. Cumulative impacts and the Project's contribution to the cumulative impacts are addressed in individual topic Sections 3.1 through 3.10 of this EIR.

These sections identify feasible mitigation measures, where necessary and appropriate, to reduce the Project's cumulatively considerable contributions to significant cumulative impacts to less than cumulatively considerable. These sections also identify those cumulative impacts for which the Project's contribution would remain cumulatively considerable, even with implementation of feasible mitigation measures (as noted above under *Significant and Unavoidable Impacts,* these include Impacts C-AQ-1a and C-AQ-2a). Please refer to individual sections of the ~~Draft~~ EIR for a discussion of cumulative impacts.

Chapter 5
Analysis of Alternatives

5.1 Introduction

5.1.1 CEQA Requirements for Alternatives Analysis

According to Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines, an environmental impact report (EIR) must describe and evaluate a reasonable range of alternatives to a project or project location that would feasibly attain most of the basic project objectives and would avoid or substantially lessen any identified significant environmental impacts of the project. An EIR is not required to present the alternatives analysis in the same level of detail as the assessment of the project, and it is not required to consider every conceivable alternative to a project. Rather, an EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision making. Additionally, the EIR must analyze the No Project alternative and must identify the environmentally superior alternative other than the No Project alternative.

5.1.2 Project Objectives

The Project comprises the proposed Bayhill Specific Plan (Specific Plan), including Phase I of YouTube's 15-year expansion plan (Phase I Development). The Specific Plan is a proposed land use plan that outlines a long-term vision for the Planning Area (Project Site). Buildout under the Specific Plan comprises the Project that is evaluated in this ~~Draft~~ EIR. The Phase I Development is a proposed development project within the Project Site. The Phase I Development is a component of the overall Project, and some of the Project objectives are specific to the Phase I Development. As noted in Chapter 2, *Project Description*, of this ~~Draft~~ EIR, the underlying purpose of the Project is to implement a Specific Plan that outlines a cohesive, long-term vision for future development on the Project Site, and ensures that development within the Project Site is integrated into an attractive setting that benefits the Project Site's property owners as well as the broader San Bruno community. Other objectives of the Project include the following:

- Accommodate additional development within the Project Site to take advantage of its proximity to existing mass transit/public transportation and strengthen its role as the City's premier employment hub.
- Enhance the quality of the Bayhill Office Park by replacing surface parking areas with architecturally distinctive buildings constructed of high-quality materials that will contribute to the revitalization of the office park.
- Provide a cohesive vision for future development within the Project Site, recognizing Bayhill's essential nature as a business park/employment center while allowing for residential development in appropriate locations, thereby helping to serve the city and region's housing needs.
- Integrate Bayhill with the greater San Bruno community. Ensure that development is an asset to the community and enhances the area's and the City's image and quality of life.
- Ensure that the neighborhood commercial uses at the Bayhill Shopping Center that serve office park employees and the surrounding neighborhoods are retained.

- Improve multimodal connectivity to and through the Project Site so that walking and biking are safe and enjoyable experiences, and connections to the nearby San Bruno Caltrain and BART stations are strengthened.
- Promote a vibrant and mixed-use walkable district. Foster the creation of an enhanced pedestrian environment and attractive greenways along public streets for the use of city residents and office park employees.
- Promote optimal long-term development patterns and accommodate the expansion needs of existing businesses, while being adaptable to changing economic conditions and business needs.
- Provide adequate parking spaces to accommodate employee and business visitor parking demand thereby ensuring that project parking is accommodated on site with no spill-over to adjacent neighborhoods.
- Enhance the public realm and promote quality design by incorporating amenities and promoting green building principles.
- Ensure a net positive fiscal impact for the city.
- Ensure that new development mitigates its impacts and pays its fair share for infrastructure improvements needed to support the development.
- For the Phase I Development, create approximately 440,000 square feet of new office and accessory space, associated parking, and a multimodal transportation facility to meet YouTube's immediate business needs and allow for future growth.
- For the Phase I Development, design buildings to meet modern tenant needs for building floor plans and site configurations.
- For the Phase I Development, provide amenities that are commensurate with the Phase I Development's density.
- For the Phase I Development, ensure the safety and security of employees through secure access to and between the existing and proposed buildings and outdoor spaces.

5.1.3 Significant Impacts of the Project

Based on the analysis provided in Chapter 3 of this ~~Draft~~ EIR, the Project would have the following significant and unavoidable impacts. The Phase I Development would not result in any significant and unavoidable impacts.

- **Impact AQ-2a: Increases in Criteria Pollutants. The Project could result in a cumulatively considerable net increase of a criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard during construction and operation.** Construction emissions resulting from individual projects developed under the Specific Plan could exceed BAAQMD's regional reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter (PM) thresholds. **Mitigation Measures AQ-1 through AQ-6** would reduce regional emissions of ROG, NOx, and PM below BAAQMD's regional thresholds. **Mitigation Measure AQ-6** requires the purchase of mitigation credits for construction emissions. Similarly, long-term operation of individual projects developed under the Specific Plan could generate emissions in excess of BAAQMD's project-level thresholds. **Mitigation Measure TRA-1** and **AQ-7** would reduce regional emissions of individual projects developed under the Specific Plan below BAAQMD's regional thresholds, resulting in a less-than-significant impact. **Mitigation**

Measure AQ-7 requires the purchase of mitigation credits for operational emissions. Based on recent experience of offsets being feasibly available for other large recent projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and thus that emissions can be reduced below threshold levels. Should offsets programs be available for future development, criteria pollutant emissions under the Specific Plan would be less than significant with mitigation. However, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, air quality impacts are conservatively assumed to be ***significant and unavoidable*****.**

- **Impact AQ-3a: Health Risks from Toxic Air Contaminants (TACs) and Criteria Pollutant Concentrations. The Project could result in the exposure of sensitive receptors to substantial TAC and criteria pollutant concentrations during construction and operation.** Construction activities of future development projects under the Specific Plan would generate diesel particulate matter (DPM) and fine particulate matter (PM2.5) that could expose adjacent receptors to significant health risks. Without specific details on the locations of building footprints or their construction schedules, a quantitative evaluation of potential health risk impacts resulting from the Project is not possible. **Mitigation Measure AQ-8** requires project-level evaluations of construction- and operational-related health risks for future projects within 1,000 feet of sensitive receptors. Because the results of future project-level evaluations are unknown, and because it remains possible that mitigation for future projects may be inadequate to reduce health risk impacts to levels below Bay Area Air Quality Management District (BAAQMD) thresholds, this impact would be ***significant and unavoidable*** after mitigation. As discussed above under **Impact AQ-2**, construction emissions resulting from individual projects developed under the Specific Plan could exceed BAAQMD's regional ROG, NOx, and PM thresholds. Similarly, long-term operation of individual projects developed under the Specific Plan could generate emissions in excess of BAAQMD's project-level thresholds. For the reasons stated above under **Impact AQ-2**, health impacts related to regional criterial pollutants quality impacts are conservatively assumed to be ***significant and unavoidable.***
- **Impact C-AQ-1a: Cumulatively Considerable Increases in Criteria Pollutants. The Project, in combination with past, present, and reasonably foreseeable future projects, could result in a cumulatively considerable net increase in criteria pollutants after mitigation for which the Project region is a nonattainment area for an applicable federal or State ambient air quality standard.** As discussed above under **Impact AQ-2**, construction emissions resulting from individual projects developed under the Specific Plan could exceed BAAQMD's regional ROG, NOx, and PM thresholds. Similarly, long-term operation of individual projects developed under the Specific Plan could generate emissions in excess of BAAQMD's project-level thresholds. According to BAAQMD's thresholds of significance for air pollutants, 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, for the reasons stated above under **Impact AQ-2**, cumulative operational air quality impacts are conservatively assumed to be ***significant and unavoidable.***
- **Impact C-AQ-2a: Cumulative Health Risks from TACs. The Project's TAC emissions, in combination with past, present, and reasonably foreseeable future project TAC emissions, could contribute to cumulative exposure health risks of sensitive receptors. The Project could also locate new receptors where they could be exposed to cumulative health risks due to cumulative TAC emissions.** Existing nearby DPM sources and the Project could contribute to a

cumulative health risk for sensitive receptors near the Project Site. For instance, the installation or operation of new stationary sources of TACs (e.g., generators) on the Project Site could result in significant PM2.5 concentrations. In addition, future development projects under the Specific Plan could generate DPM and PM2.5 that could expose adjacent receptors to significant health risks that cannot be mitigated, as discussed in Impact AQ-3. Therefore, it is conservatively assumed that the cumulative health impacts from TAC emissions would be *significant and unavoidable* after mitigation, and that the Project's contribution would be cumulatively considerable.

- **Impact TRA-5a: Project-Generated Vehicle Miles Traveled (VMT). The Project would be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), concerning VMT, even with implementation of a Transportation Demand Management (TDM) Program.** The Project would exceed the VMT per service population threshold of 21.7 VMT by 23 percent under Existing-Plus-Project conditions. Mitigation Measure TRA-1 requires Specific Plan tenants to implement a TDM program. However, studies indicate that implementation of a typical TDM program for office uses, in communities with similar transportation and land use context to San Bruno, would result in a VMT reduction of approximately 10 to 15 percent. Therefore, even with mitigation, it is unlikely that the Project can achieve the level of reduction in VMT needed to achieve the State's long-term climate goals. This would result in a *significant and unavoidable* impact related to State CEQA Guidelines Section 15064.3 (b).

5.1.4 Overview of Alternatives Considered

In addition to the required No Project Alternative, seven alternatives to the Project were considered, including six onsite alternatives and one offsite alternative. To determine which of the alternatives should be evaluated in the ~~Draft~~ EIR, each alternative was screened to determine whether it would meet most of the objectives of the Project (inclusive of the Phase I Development), reduce any of the significant impacts identified in the ~~Draft~~ EIR, and be potentially feasible. The ability to meet most of the Project objectives was determined based on whether the alternative would meet the fundamental Project purpose and objectives. Because the Project evaluated in this EIR is buildout under the Specific Plan, inclusive of the Phase I Development, the alternatives evaluated are alternatives to the Project. The Phase I Development is assumed to be the same under all alternatives (except the No Project Alternative). Alternatives to the Phase I Development are not required to be evaluated under CEQA because the Phase I Development is one component of the overall Project. It is also noted that the Phase I Development would not result in any significant and unavoidable impacts. Cumulative impacts are only evaluated for the cumulative impacts that were found to be significant and unavoidable for the Project (i.e., Impacts C-AQ-1a and C-AQ-2a).

This chapter provides a description of the alternative considered but rejected, followed by an analysis of the No Project Alternative and the two alternatives selected for evaluation: the Residential Alternative and the Increased Height Alternative.

5.2 Alternative Considered but Rejected

5.2.1 Offsite Alternative

Under the Offsite Alternative, the Specific Plan would be implemented at a different location, and no changes would occur to the Project Site. Depending on the location and its proximity to alternative transportation modes and sensitive receptors, implementing the Project at a different site could reduce VMT per service population and exposure of sensitive receptors to PM2.5 and DPM and criteria air pollutants.

The Offsite Alternative was rejected as infeasible because YouTube currently occupies the Project Site and owns a majority (10 parcels) of the Project Site. It would be speculative to assume that YouTube would be able to identify and purchase contiguous parcels at another location that could accommodate YouTube's expansion plans. Furthermore, there are no other vacant or underutilized sites within the city that are large enough to accommodate the type and scale of buildout envisioned under the Specific Plan. The Offsite Alternative also would not meet the fundamental Project purpose to implement a Specific Plan that outlines a cohesive, long-term vision for future development on the Project Site, or the numerous Project objectives related to improving the Bayhill Office Park and enhancing its role as a major business park/employment center in the city.

5.2.2 Reduced Parking Alternative

The parking standards identified within the San Bruno Municipal Code also apply to the Bayhill Specific Plan area. The Municipal Code gives project applicants the ability to reduce parking requirements for nonresidential land uses within a Specific Plan area by up to 30 percent. Specifically, the number of required parking spaces may be reduced by up to 10 percent with a Parking Management Plan and TDM Plan. An additional reduction in parking can potentially be achieved by paying an in-lieu fee as an alternative to providing the required off-street parking spaces, at the discretion of the approval body.

Under the Reduced Parking Alternative, base parking standards would be reduced even further—up to 30 percent below the reduced parking standards in the San Bruno Municipal Code. However, in this case, a reduced parking supply would be expected to result in parking spillover into adjacent neighborhoods rather than reduced VMT. That is, reducing the Project's parking supply would most likely result in drivers parking along nearby residential streets rather than utilizing alternative modes of transportation instead of driving. This is a consequence of the vicinity's suburban setting and abundant supply of free, unrestricted parking immediately adjacent to the Project Site. Even with a robust TDM program such as the one described in **Mitigation Measure TRA-1**, it is likely that a 30 percent decrease in parking supply would still result in spillover parking with potential adverse effects on surrounding neighborhoods (including environmental effects, such as noise, and non-environmental effects, such as reduced parking supply). **Mitigation Measure TRA-1** assumes a wide range of incentive programs and services and already assumes the maximum auto mode share reduction possible given the Project's suburban setting. Layering additional parking reductions onto the TDM reductions assumed in **Mitigation Measure TRA-1** is not expected to result in additional mode shift or VMT reduction. TDM plans have a maximum effectiveness for a given place type (suburban low-density, suburban downtown, urban high-density, etc.) no matter how strongly they are promoted to drivers. Therefore, while reduced parking supply can be used as an ad hoc TDM strategy, in this case, a Reduced Parking Alternative likely would not result in reduced VMT. Therefore, the Reduced Parking Alternative was rejected from further consideration due to its inability to reduce or avoid the significant impacts of the Project.

5.2.3 Reduced Intensity Alternative

Under the Reduced Intensity Alternative, the development intensity of the Project (e.g., square footage, parking, building height and massing) would be reduced by approximately 25 percent. The Reduced Intensity Alternative was considered for its potential to reduce all of the Project's significant impacts, which include impacts related to VMT, criteria air pollutants, and TACs.

With regard to VMT, while the Reduced Intensity Alternative could reduce the number of vehicle trips to and from the Project Site, VMT is a factor of more than just the size of a project. VMT reflects the length, and not just volume, of trips associated with a given land use. Larger projects near public transportation can result in lower VMT than smaller projects far away from public transportation. The Project Site is within a Priority Development Area (PDA) designated by the Association of Bay Area Governments (ABAG)/Metropolitan Transportation Commission. The PDA designation is reflective of the Project Site's proximity to public transportation resources including BART and Caltrain. PDAs are transit-oriented infill development opportunity areas that are expected to accommodate over two-thirds of all regional growth by 2040.[1] Focusing growth within PDAs is a key regional planning strategy for reducing VMT and associated air pollutant and greenhouse gas (GHG) emissions. Therefore, reducing the density of the Project would likely result in greater, rather than reduced, total VMT in the region due to shifting the Project Site's development potential to areas outside of PDAs with higher VMT-generating potential.

The Project's criteria air pollutant emissions are identified as significant and unavoidable because it cannot be concluded that offset programs (**Mitigation Measures AQ-6 and AQ-7**) would be available in the future at the time and in the amount needed for any given future development. This would remain the case under the Reduced Intensity Alternative.

With regard to TACs, given the scale of the Reduced Intensity Alternative, while emissions generated by new stationary sources, vehicle trips, and construction activities would be reduced compared with the Project, they would still have the potential to expose receptors to cancer and non-cancer risks in excess of BAAQMD significance thresholds. TAC emissions still could occur within 1,000 feet of existing and future sensitive receptors. While **Mitigation Measure AQ-8** would require Project-level evaluations of construction- and operational-related health risks from future projects, as is the case with the Project, it would be speculative to estimate how much mitigation would be needed to reduce impacts for future health risks (because reducing development by 25 percent would not necessarily reduce TAC emissions by a similar amount) or to conclude if they would be reduced below BAAQMD threshold levels. Furthermore, given the size and configuration of the Project Site and the location of nearby residences and parks, even with a 25 percent reduction in development it would not be possible to exclude development within 1,000 feet of sensitive receptors.

Ultimately, the Reduced Intensity Alternative was rejected from further consideration because, although it might reduce TAC emissions to some degree, it might actually increase VMT on a regional basis, would be inconsistent with regional growth policies, and would have no effect on the criteria air pollutant impact.

5.2.4 Reconfigured Office-Only Alternative

The Reconfigured Office-Only Alternative would preclude the potential for new uses sensitive to poor air quality to be developed on the Project Site by eliminating the residential overlay zone and not allowing daycare uses as an allowable use under the Specific Plan. This alternative would also reconfigure new office uses and potential TAC sources (e.g., new stationary sources, vehicle trips, and construction activity) by concentrating new development toward the center of the Project Site, farther from nearby offsite sensitive receptors. This alternative was considered for its potential to reduce or avoid the Project's significant TAC and criteria air pollutant health risk impacts. This alternative was rejected from further consideration because there is no feasible setback that would allow for the proposed uses to be developed at a distance of 1,000 feet or more from offsite receptors without exceeding height limitations set by Ordinance No. 1284. Furthermore, this alternative would not meet the basic Project objective to provide a cohesive vision for

[1] MTC/ABAG 2017

future development within the Project Site, recognizing Bayhill's essential nature as a business park/employment center while allowing for residential development in appropriate locations, thereby helping to serve the city and region's housing needs.

5.2.5 Phase I-Only Alternative

The Phase I-Only Alternative would develop the Phase I Development without any subsequent development. As discussed above, the Phase I Development would not result in any significant and unavoidable impacts. Therefore, the Phase I-Only Alternative would avoid all of the significant impacts of the Project and would meet the Project objectives specific to the Phase I Development. However, the Phase I-Only Alternative would not meet the underlying purpose of the Project to implement a Specific Plan that outlines a cohesive, long-term vision for future development on the Project Site. The Phase I-Only Alternative also would not meet many of the basic objectives of the Project including enhancing the quality of the Bayhill Office Park by replacing surface parking areas with architecturally distinctive buildings constructed of high-quality materials that will contribute to the revitalization of the office park; providing a cohesive vision for future development within the Project Site, recognizing Bayhill's essential nature as a business park/employment center while allowing for residential development in appropriate locations, thereby helping to serve the city and region's housing needs; promoting a vibrant and mixed-use walkable district; and promoting optimal long-term development patterns and accommodating the expansion needs of existing businesses, while being adaptable to changing economic conditions and business needs. Therefore, the Phase I-Only Alternative was rejected from further consideration.

5.3 Alternatives Selected for Further Review

This section describes and evaluates three alternatives to the Project. The first alternative is the No Project Alternative, which represents expected development patterns and uses within the Project Site in the absence of the Project. Under this alternative a new Specific Plan for the Project Site would not be adopted, there would be no change to existing General Plan land use classifications or zoning districts, and existing land uses would remain in their current physical state. The second and third alternatives consider different variations of buildout under the Specific Plan. The second alternative is the Residential Alternative, which would establish a new high-density residential zone on the Project Site, rather than a housing overlay zone, and allow for more housing (up to 1,499 units). The third alternative is the Increased Height Alternative, which would allow for an increase in building height of up to 5 stories to accommodate additional commercial and residential square footage within the Project Site. Like the Project, the Increased Height Alternative would include a housing overlay zone; therefore, a Maximum Office Scenario and Maximum Housing Scenario have been defined for purposes of evaluating the environmental impacts of the Increased Height Alternative. There would be no changes to the Phase I Development under the Residential Alternative or the Increased Height Alternative.

Table 5-1 below compares the total net new development of the Project, the Residential Alternative, and the Increased Height Alternative. Each alternative is described in further detail below.

Table 5-1. Comparison of Total Net New Development under the Project and Alternatives 2 and 3

	Proposed Project (3 stories)			Increased Height Alternative (5 stories)	
Total Net New Development	Maximum Office Scenario	Maximum Housing Scenario	Residential Alternative (3 stories)	Maximum Office Scenario	Maximum Housing Scenario
Office (sf)[a]	2,459,847	1,942,896	1,773,636	2,459,847	1,942,896
Retail (sf)	-	-	-	-	-
Hotel (sf)	-	-	-	31,661 (53 rooms)	31,661 (53 rooms)
Residential (DU)[b]	-	573	1,499	-	1,070

[a] sf = square feet
[b] DU = dwelling unit

5.3.1 No Project Alternative

CEQA requires the evaluation of a No Project Alternative (CEQA Guidelines Section 15126.6(e)). The analysis of the No Project Alternative is based on the assumption that the proposed Project would not be approved. The purpose of evaluating the No Project Alternative is to allow decision-makers to compare the potential impacts of approving the Project with the potential impacts of not approving the Project. In certain instances, the No Project Alternative means “no build” wherein the existing environmental setting is maintained. The environmental setting is usually defined as the time of the Notice of Preparation (in the case of the Project, November 2017). However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the No Project Alternative should identify the practical result of the Project’s non-approval rather than create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.

In this case, the lead agency has determined that a “no build” scenario is the most likely outcome of not approving the Project because the majority of the properties within the Project Site are currently governed by individual P-D (Planned Development) Development Plan Zoning Ordinances that govern the specific amount of development that is permitted on each property. Individual P-D Development Plan Zoning Ordinances are required to be amended or modified by the City Council in order to add any additional development intensity. There is no additional development program currently permitted for the existing parcels zoned P-D, and the City Council must take legislative action by approval of an ordinance to permit any new development on these properties.

Accordingly, the No Project Alternative assumes that the Specific Plan is not adopted, existing land uses remain unchanged and in their current physical state, and no new construction occurs within the Project Site. No new commercial, housing, or civic uses would be built, nor would any subterranean parking garages, and no demolition of existing uses would occur. Previously entitled construction (such as the office project at the vacant lot west of 901 Cherry Avenue) may still occur as separate projects. Existing General Plan land use classifications and zoning districts would be maintained on the Project Site. No new streetscape or open space would be constructed. Grundy Lane would retain its current configuration and would not be realigned. The No Project Alternative assumes that YouTube would continue operating at its current location. The Phase I Development would not be built, nor would any of the offsite improvements associated with the Phase I Development (e.g., multi-modal center).

5.3.1.1 Ability to Meet Project Objectives

The No Project Alternative would ensure that the neighborhood commercial uses at the Bayhill Shopping Center that serve office park employees and the surrounding neighborhoods are retained, but would not meet any of the other Project objectives.

5.3.2 Residential Alternative

The Residential Alternative is a variation of the proposed Specific Plan that would allow for the development of up to 1,499 new residential dwelling units, 926 more dwelling units than the Project. To accommodate the increased residential density, the amount of net new office uses would be reduced to 1,773,636 square feet compared to 2,459,847 square feet under the Project (or 1,942,896 square feet under the Maximum Housing Scenario). The Residential Alternative was selected for evaluation based on its ability to provide additional housing and reduce VMT impacts.

The Residential Alternative would change the permitted uses and densities at three parcels that correspond with the Project's mixed-use and housing overlay zones: 801–851 Traeger Avenue, 1111 Bayhill Drive, and 851–899 Cherry Avenue (Bayhill Shopping Center). At the 801–815 Trager Avenue parcel, the existing buildings would be demolished and up to 528 residential dwelling units would be permitted compared to 205 dwelling units under the Project. No new office development would be permitted on this parcel. At the 1111 Bayhill Drive parcel, up to 339 dwelling units would be permitted compared to 158 dwelling units under the Project. Up to 138,248 square feet of net new office uses would also be permitted at this parcel, compared to 363,863 net new office square feet under the Project. At the Bayhill Shopping Center parcels, up to 421 residential dwelling units would be permitted compared to 210 units under the Project. Similar to the Project, the existing retail square footage would be retained and no new regional office uses would be permitted on the Bayhill Shopping Center parcels. The permitted uses and densities on all other areas within the Project Site would be the same as under the Project, and the Phase I Development would be the same as under the Project.

Table 5-2 provides estimates of the amount of office, retail, hotel, and residential space that could be developed under the Residential Alternative. Because the Residential Alternative would not include housing or mixed-use overlays, only one buildout scenario is evaluated. Although the mixed-use overlay zone is not included in this alternative, the shopping center retail square footage would remain. The number of residents and employees that could be generated under the Residential Alternative are discussed below under Section 5.4.2.8, *Population and Housing*.

Table 5-2. Projected 2040 Development under the Residential Alternative

	Office (sf)[a]	Retail (sf)	Hotel (sf)	Residential (DU)[b]
Existing Building Area	1,557,847	121,846	79,152 (133 rooms)	-
Existing to be Removed				
Phase I Development ~~(2022)~~	138,524	-	-	-
Remaining Specific Plan Buildout	689,040	-	-	-
Total Existing to be Removed	**827,564**	**-**	**-**	**-**
Total Existing to Remain	**730,283**	**121,846**	**79,152 (133 rooms)**	**-**

	Office (sf)[a]	Retail (sf)	Hotel (sf)	Residential (DU)[b]
Proposed New Construction				
Phase I Development ~~(2022)~~	440,000	-	-	-
Remaining Specific Plan Buildout	2,161,200	-	-	1,499
Total New Construction Proposed	**2,601,200**	**-**	**-**	**1,499**
Net Change (Total at Buildout – Existing)	**1,773,636**	**-**	**-**	**1,499**
Total at Buildout (Existing to Remain + Total New Construction)	**3,331,483**	**121,846**	**79,152 (133 rooms)**	**1,499**

[a] sf = square feet
[b] DU = dwelling unit

Like the Project, building heights under the Residential Alternative would be restricted to a maximum of three stories. Although there would be a decrease in office density, the increased residential density would result in an increase in impervious area compared to the Project (approximately 12 percent more impervious area than the Project). This is because the residential uses would consist of podium construction with underground parking and internal courtyard spaces on top of the garages. The Residential Alternative would require a similar amount of parking as the Project based on the vehicle parking standards in the San Bruno Municipal Code. Therefore, the number, footprints, and maximum depths of the proposed subterranean garages would be the same as the Project.

All other features of the Residential Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, maximum building heights, building design, TDM program, and sustainability features. Like the Project, the Specific Plan under the Residential Alternative would allow for the transfer of up to 20 percent of the office square footage between parcels and the proposed equivalency program allowing the transfer of unallocated square footage. Construction activities, phasing, and duration would be substantially similar to those of the Project.

5.3.2.1 Ability to Meet Project Objectives

The Residential Alternative would achieve all of the Project objectives discussed above in Section 5.1.2. However, the extent to which the alternative would accommodate the expansion needs of existing businesses, while being adaptable to changing economic conditions and business needs, would be reduced compared to the Project due to the reduction in net new office space.

5.3.3 Increased Height Alternative

The Increased Height Alternative would allow housing, hotel, and office buildings on the Project Site to reach a height limit of 70 feet/five stories. The additional building height would allow for a greater density of residential and hotel uses compared to the Project, while the intensity of office development would be the same. The Phase I Development would be the same under this alternative. This alternative could only be implemented if the voters approved a modification to Ordinance No. 1284, which currently limits heights on the Project Site to three stories. The San Bruno City Council requested an evaluation of the Increased Height Alternative to evaluate an alternative that has the potential to provide more housing. It would also reduce transportation-related impacts. The Council noted the need for an election before this alternative could be implemented. This ~~Draft~~ EIR provides a quantitative evaluation of the Increased Height Alternative and could be used to provide CEQA clearance for such an alternative in the event that it is approved by voters and the City Council.

This Increased Height Alternative would allow for 497 more housing units in the housing and mixed-use overlay zones compared to the Project. A goal of increasing the height and density for housing would be to make the construction of housing more financially feasible. Office buildings would contain the same total volume but could be taller with smaller bases, enabling more of the site area to be in open space. It is estimated that the Increased Height Alternative would provide approximately 6.5 acres of additional open space compared to the Project. Consequently, the Increased Height Alternative would provide more pervious area than the Project. The Increased Height Alternative would require more parking than the Project based on the vehicle parking standards in the San Bruno Municipal Code. Therefore, it is assumed that the maximum depths of the proposed subterranean garage at the 801–851 Traeger Avenue parcel would be 49 feet, compared to 29 feet under the Project, and the maximum depth of the subterranean garage at the 1111 Bayhill Drive parcel would be approximately 58 feet, compared to 49 feet under the Project.

All other features of the Increased Height Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features. Like the Project, the Specific Plan under the Increased Height Alternative would allow for the transfer of up to 20 percent of the office square footage between parcels and the proposed equivalency program allowing the transfer of unallocated square footage. Construction activities and phasing and duration would be substantially similar to those of the Project, but the number of days with the greatest intensity of construction would likely increase due to the additional residential and hotel building area.

Similar to the Project, to account for the variability resulting from the housing overlay zone, two different buildout scenarios for the Increased Height Alternative have been developed for purposes of this analysis:

1. The Increased Height Alternative Maximum Office Scenario, where no residential construction occurs within the housing and mixed-use overlay zones, would include an increase of square footage allocated to hotel space.
2. The Increased Height Alternative Maximum Housing Scenario, where the housing development is constructed within the furthest range allowable under the Specific Plan, would include an increase in square footage allocated to both hotel and residential space.

Similar to Chapter 3 of this ~~Draft~~ EIR, this chapter analyzes the Increased Height Alternative Scenario, which represents the "worst-case" scenario for the resource being analyzed. The "worst-case" scenario is the scenario with the greatest potential to result in significant impacts. For example, the Increased Height Maximum Housing Scenario, which would generate the most school-age children, is analyzed to determine potential impacts on school facilities. These scenarios are described below.

5.3.3.1 Increased Height Alternative Maximum Office Scenario

The Increased Height Alternative Maximum Office Scenario would retain the same square footage of office and retail space as the Project, but would allow for an increase of 31,661 square feet of hotel space at the location of the existing hotel on the 1050 Bayhill Drive parcel. This would yield approximately 53 new hotel rooms for a total of 186 hotel rooms. Table 5-3 provides the amount of office, retail, hotel, and residential space that could be developed under the Increased Height Alternative Maximum Office Scenario.

Table 5-3. Projected 2040 Development under the Increased Height Alternative Maximum Office Scenario

	Office (sf)[a]	Retail (sf)	Hotel (sf)	Residential (DU)[b]
Existing Building Area	1,557,847	121,846	79,152 (133 rooms)	-
Existing to be Removed				
Phase I Development ~~(2022)~~	138,524	-	-	-
Remaining Specific Plan Buildout	554,328	-	-	-
Total Existing to be Removed	**692,852**	**-**	**-**	**-**
Total Existing to Remain	**864,995**	**121,846**	**79,152 (133 rooms)**	**-**
Proposed New Construction				
Phase I Development ~~(2022)~~	440,000	-	-	-
Remaining Specific Plan Buildout	2,712,699	-	31,661 (53 rooms)	-
Total New Construction Proposed	**3,152,699**[a]	**-**	**31,661 (53 rooms)**	**-**
Net Change (Total at Buildout – Existing)	**2,459,847**	**-**	**31,661 (53 rooms)**	**-**
Total at Buildout (Existing to Remain + Total New Construction)	**4,017,694**	**121,846**	**110,813 (186 rooms)**	**-**

The Specific Plan would also allow for an up to 50,000-sf civic use to be developed on a 2.1-acre parcel bordering San Bruno Avenue West. If the civic use were to be developed, the overall capacity of the Specific Plan area to accommodate new office uses would be reduced, and less office square footage would be developed. Therefore, the civic use is not shown in the Increased Height Alternative Maximum Office Scenario, which assumes that the maximum possible amount of office square footage is built. The potential civic use is discussed in this ~~Draft~~ EIR where relevant to the impact analysis.

[a] sf = square feet

[b] du = dwelling unit

This alternative would meet all of the Specific Plan and Phase I Development objectives discussed above under Section 5.1.2, *Project Objectives*.

5.3.3.2 Increased Height Alternative Maximum Housing Scenario

The Increased Height Alternative Maximum Housing Scenario would retain the same square footage of office and retail space as the Project, but would allow for an increase of 31,661 square feet of hotel space at the location of the existing hotel on the 1050 Bayhill Drive parcel. This would yield approximately 53 new hotel rooms for a total of 186 hotel rooms. The Increased Height Alternative Maximum Housing Scenario would also allow for 1,070 dwelling units, an increase of 497 compared to the Project, generally located along San Bruno Avenue. Table 5-4 provides the amount of office, retail, hotel, and residential space that could be developed under the Increased Height Alternative Maximum Housing Scenario.

Table 5-4. Projected 2040 Development under the Increased Height Alternative Maximum Housing Scenario

	Office (sf)[a]	Retail (sf)	Hotel (sf)	Residential (DU)[b]
Existing Building Area	1,557,847	121,846	79,152 (133 rooms)	-
Existing to be Removed				
Phase I Development ~~(2022)~~	138,524	-	-	-
Remaining Specific Plan Buildout	689,040	-	-	-
Total Existing to be Removed	**827,564**	**-**	**-**	**-**
Total Existing to Remain	**730,283**	**121,846**	**79,152 (133 rooms)**	**-**
Proposed New Construction				
Phase I Development ~~(2022)~~	440,000	-	-	-
Remaining Specific Plan Buildout	2,330,460	-	31,661 (53 rooms)	1,070
Total New Construction Proposed	**2,770,460**	**-**	**31,661 (53 rooms)**	**1,070[a]**
Net Change (Total at Buildout – Existing)	**1,942,896**	**-**	**31,661 (53 rooms)**	**1,070**
Total at Buildout (Existing to Remain + Total New Construction)	**3,500,743**	**121,846**	**110,813 (186 rooms)**	**1,070**

The Specific Plan would also allow for an up to 50,000-sf civic use to be developed on a 2.1-acre parcel bordering San Bruno Avenue West. If the civic use were to be developed, the overall capacity of the Specific Plan area to accommodate new residential uses would be reduced, and fewer than 1,070 housing units would be developed. Therefore, the civic use is not shown in the Increased Height Alternative Maximum Housing Scenario, which assumes that the maximum possible number of residential dwelling units is built. The potential civic use is discussed in this ~~Draft~~ EIR where relevant to the impact analysis.

[a] sf = square feet

[b] du = dwelling unit

5.3.3.3 Ability to Meet Project Objectives

The Increased Height Alternative would achieve all of the Project objectives discussed above in Section 5.1.2.

5.4 Impact Analysis

The environmental impact analysis focuses on the same subjects analyzed for the Project to provide a meaningful comparison of impacts. Those subjects are only those where the Project has a potential to result in a significant impact. See further discussion in Chapter 1, *Introduction*.

5.4.1 No Project Alternative

5.4.1.1 Visual Resources

Relative to the Project, which would have a less-than-significant impact regarding conflicts with applicable plans, policies, or regulations governing scenic quality and visual resources, the No Project Alternative would have no impact because the existing land uses on the Project Site would be unchanged, and no new construction would occur. As such, there would be no changes to visual quality and the No Project Alternative would have a reduced impact compared to the Project related to compatibility with applicable plans, policies, or regulations governing scenic quality and visual resources.

Likewise, the No Project Alternative would have no impact on the creation of a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area because no new construction would occur; therefore, no new light or glare would be created that could affect views in the area. This is a reduction of the less-than-significant impact that the Project would on the introduction of a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

Overall, the No Project Alternative would have ***no impact*** on visual resources, which represents a lesser impact than the less-than-significant impact of the Project.

5.4.1.2 Air Quality

The No Project Alternative would not result in changes to existing land uses on the Project Site and would not generate construction or operational criteria air pollutant emissions. Therefore, the No Project Alternative would have ***no impact*** on air quality and would avoid the Project's significant and unavoidable project and cumulative impacts related to TACs and criteria air pollutants.

5.4.1.3 Energy

Under the No Project Alternative, energy use on the Project Site would remain unchanged. The No Project Alternative would not result in any physical changes to the existing uses at the Project Site, such as new office or residential development, which would require additional energy consumption or use. Therefore, the No Project Alternative would have ***no impact*** on energy use, representing a lesser impact than the Project's less-than-significant-with-mitigation impact.

5.4.1.4 Greenhouse Gases

The No Project Alternative would not result in changes to existing land uses on the Project site and would not generate construction or operational GHG emissions. Therefore, the No Project Alternative would have ***no impact*** on GHGs, representing a lesser impact than the Project's less-than-significant-with-mitigation GHG impacts.

5.4.1.5 Hydrology and Water Quality

Under the No Project Alternative, impervious area, stormwater flow rates, and drainage patterns would remain unchanged. Under this alternative, the impervious area would not increase in comparison to the Project, and there would be no increased runoff volumes or sources of polluted runoff. No subterranean parking garages would be constructed; therefore, no dewatering during construction or operation would result, and there would be no impacts on groundwater quality or supply. Therefore, the No Project

Alternative would have ***no impact*** on hydrology and water quality, representing a lesser impact than the Project's less-than-significant-with-mitigation impact.

5.4.1.6 Land Use and Planning

The No Project Alternative would not require any physical changes to the existing land uses at the Project Site and would not result in any new development. Therefore, the No Project Alternative would have ***no impact*** on land use and planning, representing a lesser impact than the Project's less-than-significant-with-mitigation impact.

5.4.1.7 Noise

The No Project Alternative would not require any physical changes to the existing land uses at the Project Site and would not result in any new development. Impacts of the No Project Alternative would be less than those of the Project, as the No Project Alternative would result in ***no impact*** during construction or operation.

5.4.1.8 Population and Housing

The No Project Alternative would not create any office or residential space that would generate new residents or employees. Therefore, the No Project Alternative would have ***no impact*** on population and housing, representing a lesser impact than the Project's less-than-significant impact.

5.4.1.9 Public Services and Recreation

The No Project Alternative would not increase the number of residents, employees, or children within the Project Site and therefore would have no impact on public services or recreational facilities. Therefore, the No Project Alternative would have ***no impact*** on public services and recreation, representing a lesser impact than the Project's less-than-significant impact.

5.4.1.10 Transportation

Under the No Project Alternative, there would be no change to the existing office, retail, and hotel uses on the Project Site, and transportation and circulation conditions would remain as they are under existing conditions. No new trips would be generated, and ***no impact*** with respect to transportation would occur. Therefore, the No Project Alternative would avoid the Project's significant and unavoidable impacts related to VMT and freeway queuing.

5.4.1.11 Utilities and Service Systems

The No Project Alternative would not result in an increase in use of utilities and service systems or in demand for utilities and service systems. The No Project Alternative would therefore have ***no impact*** on utilities and service systems, compared to the Project's less-than-significant-with-mitigation impact.

5.4.2 Residential Alternative

5.4.2.1 Visual Quality

Compared to the Project, the Residential Alternative would reduce the allowable quantity of office space and increase the allowable quantity of residential space. Overall building coverage would be slightly greater than under the Project because of the type of residential podium construction. Allowable building heights (three stories) would remain the same as under the Project and the same height restrictions as per Ordinance No. 1284 would apply. Overall visual resources impacts associated with density and building heights would be similar to the Project's less-than-significant impacts. All other visual features of the Residential Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features. The design of the Residential Alternative would be guided by similar design guidelines in the Specific Plan as the Project, and the same guiding principles that seek to enhance the overall aesthetic qualities of the Project Site would also be applied to the Residential Alternative. Overall, the Residential Alternative would not conflict with plans, policies, or regulations governing scenic quality and impacts would be ***less than significant*** and similar to the Project's less than significant impacts.

The Residential Alternative would introduce similar sources of light and glare to the Project Site as the Project, such as vehicle headlights, glare from buildings, and signage. With adherence to General Plan and Specific Plan policies, impacts related to the introduction of new light and glare that could affect daytime or nighttime views in the area would be ***less than significant*** and similar to those of the Project.

5.4.2.2 Air Quality

Compared to the Project, the Residential Alternative would change the land use scenario of the Specific Plan by reducing the amount of allowable office space and increasing the amount of allowable residential space. All other features of the Residential Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features.

The same Project goals, policies, and development standards found to be consistent with the goals and applicable control measures identified in *2017 Clean Air Plan* would apply to the Residential Alternative. As such, the Residential Alternative would support the *2017 Clean Air Plan* and would not conflict with its implementation. This impact would be the same as that of the Project and would be ***less than significant***. No mitigation would be required. Similar to the Project, the Residential Alternative would not result in any odor-generating land uses and would not violate BAAQMD Regulation 7. Accordingly, odor impacts under the Residential Alternative would be the same as under the Project and would be ***less than significant***. No mitigation would be required.

The Residential Alternative would result in greater cumulative and health risk impacts during construction and similar cumulative and health risk impacts during operation relative to the Project. The additional residential units allowed under the Residential Alternative are anticipated to increase construction activities and associated criteria air pollutant emissions compared to the Project. As such, similar to the Project, implementation of **Mitigation Measures AQ-1** through **AQ-6** would be required to reduce construction emissions and associated health risks. However, because it cannot be concluded that offset programs (**Mitigation Measure AQ-6**) would be available in the future at the time and in the amount needed for any given future development, this alternative would not avoid the Project's ***significant and unavoidable*** criteria air pollutant emissions impact during construction (in fact, impacts would be greater). .

The additional residential units allowed under the Residential Alternative would result in greater operational emissions from area and building energy sources. However, VMT would decrease under the

Residential Alternative,[2] thereby resulting in fewer operational mobile source emissions than the Project. Like the Project,[3] mobile sources are anticipated to comprise most of the operational emissions generated by the Residential Alternative. Accordingly, reductions in mobile source emissions are anticipated to offset any relative emissions increases from other sources, resulting in comparable levels under the Residential Alternative as the Project. Implementation of **Mitigation Measures TRA-1** and **AQ-7** would be required to reduce impacts from operational emissions and associated health risks from criteria air pollutants. However, because it cannot be concluded that offset programs (**Mitigation Measure AQ-7**) would be available in the future at the time and in the amount needed for any given future development, this alternative would not avoid the Project's ***significant and unavoidable*** criteria air pollutant emissions impact during operation, and impacts would be similar to those of the Project.

In addition, increased development under the Residential Alternative could increase exposure of sensitive receptors to significant health risks associated with TAC emissions and criteria air pollutants during construction and operation. Therefore, **Mitigation Measure AQ-8** would be required to reduce TAC hazards. However, similar to the Project, it is possible that mitigation for future project health risks may be inadequate to reduce impacts below BAAQMD threshold levels. Therefore, health risks from TAC emissions and criteria air pollutants would be ***significant and unavoidable***. Given the increase in construction activities, health risks from TAC emissions and criteria air pollutants during construction would be greater than the Project's significant-and-unavoidable impacts, while health risk impacts from TAC emissions and criteria air pollutants during operation would be similar to the Project's significant-and-unavoidable impacts given that activities are anticipated to be comparable.

Cumulative air quality and health risk impacts associated with the Residential Alternative would be greater than those of the Project during construction and similar during operation. As was the case with the Project, implementation of **Mitigation Measures AQ-1** through **AQ-6** would reduce cumulatively considerable air quality impacts and associated health risks from criteria air pollutants during construction. Implementation of **Mitigation Measures TRA-1** and **AQ-7** would reduce cumulatively considerable air quality impacts and associated health risks from criteria air pollutants during operation. However, for the reasons stated above regarding future offset programs **(Mitigation Measures AQ-6 and AQ-7)**, cumulative operational air quality impacts are conservatively assumed to be ***significant and unavoidable*** and similar to the Project's impacts.

Implementation of **Mitigation Measures AQ-1** through **AQ-8** along with Specific Plan Policies 6-11 and 6-13 would reduce construction and operational health risks to existing and future receptors. However, similar to the Project, there may be instances where conditions preclude the reduction of health risk below adopted thresholds and expose receptors to cumulative health risks. Future development projects under the Residential Alternative could generate increased levels of DPM and PM2.5 given increased construction activities that could expose adjacent receptors. Therefore, this cumulative impact from TAC emissions would be ***significant and unavoidable***. This impact under the Residential Alternative would be greater than the Project's significant-and-unavoidable impact during construction given the increase in construction activities and emissions, and similar during operation given that activities are anticipated to be comparable.

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[2] The increase in residential uses under this alternative is expected to result in a decrease in VMT, as trip distances are typically shorter for residential trips when compared with office land uses. See Section 5.4.2.10, *Transportation*, for additional details.

[3] The Project's mobile sources contributed approximately 23 percent of reactive organic gas emissions, 57 percent of nitrogen oxide emissions, 93 percent of carbon monoxide emissions, 99 percent of particulate matter 10 microns or smaller emissions, and 98 percent of PM2.5 emissions.

5.4.2.3 Energy

In comparison to the Project, under the Residential Alternative, the allowable quantity of office space would be reduced, while the allowable quantity of residential space would increase. However, the overall building coverage and other features would be similar to those of the Project. All other features of the Residential Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features. Furthermore, the goals, policies, and development standards proposed for the Project would be the same under the Residential Alternative.

It is anticipated that construction activities under the Residential Alternative are likely to result in greater energy use impacts than the Project, while operation under this alternative is likely to result in similar energy use impacts. However, similar to the Project, implementation of **Mitigation Measures GHG-1** and **AQ-3** would be required to reduce energy use and consumption during construction activities. Energy use impacts would be ***less than significant with mitigation*** under the Residential Alternative, but greater than the less-than-significant-with-mitigation impact of the Project during construction activities.

Under the Residential Alternative, VMT would decrease, as VMT trip distances are typically shorter for residential trips than office land uses (see Section 5.4.2.10*, Transportation*, for additional details), thereby resulting in lesser mobile energy consumption (diesel and gasoline) than the Project. Like the Project,[4] it is anticipated that mobile gasoline and diesel consumption would compose most of the energy consumption under the Residential Alternative. However, like the Project, overall energy use per square foot under the Residential Alternative is likely to remain consistent with existing conditions despite the increase in building area that would occur, due to the energy efficiency of the future building and vehicles, which would be subject to increasingly robust regulations over time to meet the State's renewable energy mandates. In addition, Specific Plan policies, if fully implemented by all land uses under the Residential Alternative, would significantly reduce energy use and consumption further through voluntary sustainability features such as alternative transportation, green roofs, rooftop solar equipment, and LEED Silver or equivalent certification. Accordingly, energy use impacts under the Residential Alternative would be ***less than significant*** and similar to the Project's less-than-significant energy impacts during operation.

As mentioned in Section 3.3, *Energy*, while mitigation is not required under Project operations, it is noted that mitigation measures required to reduce GHG and transportation impacts would further reduce energy use associated with the Project (see **Mitigation Measure GHG-2** and **Mitigation Measure TRA-1**). It is anticipated that these same mitigation measures would also be implemented under the Residential Alternative, thereby decreasing energy use even more.

5.4.2.4 Greenhouse Gases

Compared to the Project, the Residential Alternative would change the land use scenario of the Specific Plan by reducing the amount of allowable office space and increasing the amount of allowable residential space. All other features of the Residential Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features.

The Residential Alternative would result in the greater GHG impacts during construction and similar GHG impacts during operation as the Project, and would potentially conflict with an applicable, plan, policy, or

[4] The Project's mobile energy consumption for both diesel and gasoline use totaled approximately 416,954 million British thermal units per year.

regulation adopted for the purposes of reducing emissions of GHGs. The additional residential units allowed under the Residential Alternative are anticipated to increase construction activities and associated GHG emissions relative to the Project. However, similar to the Project, implementation of **Mitigation Measure GHG-1** would be required to reduce construction GHG emissions. GHG impacts would be ***less than significant with mitigation***, but greater than the less-than-significant-with-mitigation impacts of the Project during construction*.*

Upon buildout, VMT would decrease under the Residential Alternative,[5] thereby resulting in fewer operational GHG mobile source emissions than the Project. Like the Project,[6] mobile sources are anticipated to comprise most of the operational emissions generated by the Residential Alternative. Accordingly, reductions in mobile source emissions are anticipated to offset any relative GHG emissions increases from other sources, resulting in comparable emissions levels under the Residential Alternative as to the Project. Similar to the Project, implementation of **Mitigation Measure TRA-1** would be required to reduce mobile source emissions<u>; in the case of the Residential Alternative, this would result in less-than significant VMT-related GHG emissions impacts</u>. In addition, Specific Plan policies, if fully implemented by all land uses under the Residential Alternative, would significantly reduce GHG emissions from other emission sources (e.g., waste, water, energy) consistent with the State's climate change goals. While the City, through the Specific Plan, would encourage implementation of voluntary sustainability features, there is no guarantee that all of these measures will be incorporated into the designs of all future developments under the Residential Alternative. This is a potentially significant impact. As such, implementation of **Mitigation Measure GHG-2** would make voluntary design features required for the Residential Alternative. Should all measures included in **Mitigation Measure GHG-2** be implemented by a future project sponsor, GHG impacts would be less than significant and no further action would be required. However, because the extent of implementation of **Mitigation Measure GHG-2** is currently unknown for the Residential Alternative (e.g., applicability and feasibility), impacts from future development could remain significant for some sectors if all strategies are not implemented for a particular project or equivalent measures are not identified by a project sponsor. For projects where all of the requirements of **Mitigation Measure GHG-2** (or their equivalent) are not implemented, implementation of **Mitigation Measure GHG-3** is further required to reduce net operational GHG emissions through purchase of GHG mitigation credits. Accordingly, GHG impacts (which are inherently cumulative) would be ***less than significant with mitigation*** and similar to the Project's less-than-significant-with-mitigation GHG impacts during operation.

5.4.2.5 Hydrology and Water Quality

Impacts under the Residential Alternative would be similar to, but slightly greater than, those for the Project on hydrology and water quality. Although there would be a decrease in office density, the increased residential density would result in an increase in impervious area compared to the Project (approximately 12 percent more impervious area than the Project). This is because the residential uses would consist of podium construction with underground parking and internal courtyard spaces on top of the garages. An increase in impervious area could result in increased runoff rates and volumes, and associated pollutants, and reduce potential infiltration, compared to the Project. The increase in impervious area may also affect the stormwater drainage system, operating with an existing capacity deficiency. Stormwater Capital Improvement Plan improvements would address existing stormwater capacity concerns; however, the

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5 The increase in residential uses under this alternative is expected to result in a decrease in VMT, as trip distances are typically shorter for residential trips when compared with office land uses. See Section 5.4.2.11, *Transportation*, for additional details.

6 The Project's mobile sources contributed approximately 81 of unmitigated carbon dioxide equivalent emissions.

City's Storm Drain Master Plan concluded that stormwater infrastructure improvements within the Project Site would not completely address the storm drain capacity deficiencies that are outside the Project Site. Considering the drainage system capacity deficiency, the additional runoff from the Project Site would result in an exceedance of the system capacity, and this would be a significant impact relative to drainage systems. **Mitigation Measures HWQ-2** would require project-level drainage studies to be conducted to identify site-specific drainage facilities necessary to maintain or reduce drainage flows to the existing system, and implementation of the necessary drainage improvements during construction.

Incorporation of recommendations from the City's adopted Green Infrastructure Plan as well as Bayhill Specific Plan polices related to sustainable landscaping would address increases in impervious areas and associated runoff. In addition, this alternative would require a similar amount of parking as the Project based on the vehicle parking standards. Therefore, the amount of vehicle-related polluted runoff at the Project Site would be similar to that of the Project. Other impacts would be similar to those of the Project as stormwater treatment measures, trash load reduction, erosion and sediment control measures, spill prevention plan, compliance with dewatering requirements, and implementation of design features would still be required, resulting in impacts that are less than significant with mitigation. Impacts on hydrology and water quality under the Residential Alternative would be ***less-than-significant with mitigation*** but greater than the less-than-significant impact of the Project.

5.4.2.6 Land Use and Planning

Compared to the Project, the Residential Alternative would change the land use scenario of the Specific Plan by reducing the allowable quantity of office space and increasing the allowable quantity of residential space, but the overall building coverage and other features would be similar to those of the Project. The Project's proposed civic use, circulation and infrastructure improvements, pedestrian realm and open space improvements, building heights and design, and TDM program would not change under the Residential Alternative. Similarly, the goals, policies, land use classifications, and development standards proposed for the Project would be substantially similar under the Residential Alternative. The Residential Alternative proposes the same types of land uses as the Project but in different quantities, which are consistent with existing uses on the site and in the vicinity. The Specific Plan under the Residential Alternative would likely improve connectivity within the community through policies and improvements, as would the Project.

Like the Project, this alternative proposes office and hotel uses for the portion of the site within the 65-decibel (dB) Community Noise Equivalent Level (CNEL) noise contour, which are not restricted uses under the Airport Land Use Compatibility Plan. The alternative would foster compact infill development and jobs in proximity to transit in order to reduce VMT and GHG emissions, consistent with the goals and objectives of Plan Bay Area 2040. The alternative would be implemented through a Specific Plan, which would bring it into consistency with the General Plan and Zoning Ordinance. The alternative would include pedestrian amenities and alternative transportation improvements consistent with the Walk 'N Bike Plan. Therefore, like the Project, this alternative would not conflict with plans or policies intended to reduce an environmental effect with implementation of the EIR mitigation measures. Therefore, land use and planning impacts under the Residential Alternative would be similar to those of the Project, and would be ***less than significant with mitigation***.

5.4.2.7 Noise

The Residential Alternative, as a result of having residential units in place of office space, would generate slightly more daily vehicle trips but fewer peak-hour vehicle trips compared to the Project. Once distributed across the proposed uses and combined with existing ambient noise levels, this level of traffic increase would not result in a perceptible difference in traffic noise levels compared to the Project. As a result, this alternative would have a similar less-than-significant traffic noise impact as the Project. This alternative would not alter the construction or operational (non-mobile) assumptions analyzed under the Project. Specifically, the assumptions related to the construction of future projects and the potential siting of noise generating uses would be the same. Potentially significant impacts related to nighttime construction noise, the siting of noise-generating uses (e.g., mechanical equipment), and the operation of sound-amplifying equipment would be the same under the Residential Alternative. **Mitigation Measures NOI-1**, **NOI-2**, and **NOI-3** would be required to reduce impacts under the Residential Alternative. As was the case for the Project, implementation of these mitigation would reduce noise impacts under the Residential Alternative to less-than-significant levels. Overall, noise impacts under the Residential Alternative would be ***less than significant with mitigation*** and similar to the Project's noise impacts.

5.4.2.8 Population and Housing

As shown below in Table 5-5, the Residential Alternative is anticipated to generate 7,095 employees through the construction of new office space and up to 4,332 onsite residents in the 1,499 new housing units. Of the employees who work in San Bruno, 13.6 percent (965 employees) are presumed to also live in the city. Based on the Bay Area average of 1.88 additional residents per employee, the Residential Alternative would generate 1,814 additional residents in the city. Much of this housing demand is expected to be accommodated by the Project's new housing units; as such, this analysis does not assume the population growth due to the new housing units is in addition to the population growth due to new employees. Based on the San Bruno average household size of 2.89 persons per household, the employee-generated residents would create the need for a total of 628 total new units of housing in the City of San Bruno, which would be accommodated within the 1,499 units created by the Residential Alternative. The remaining 6,130 employees who are presumed to reside outside of San Bruno would generate population growth totaling 11,525 persons (based on the Bay Area average of 1.88 residents per employee) and a corresponding need for an additional 4,116 new units of housing outside of San Bruno (based on the Bay Area 2019 average household size of 2.80).

Table 5-5. Direct and Indirect Employee, Resident, and Housing Generation — Residential Alternative

Land Use	Square Footage/Units/ Employees	Generation Rate	Projected Employees/ Residents/Households
Employees			
Office (net new)	1,773,636 sf	250 sf/employee[a]	7,095 employees
Total New Employees	—	—	*7,095 employees*
Residents			
On-site residents (direct)	1,499 Units	2.89 persons/household[b]	4,332 residents
Employee-generated residents in San Bruno (indirect)	7,095 employees	13.6%[c,d,e] 1.88 persons/employee[f]	965 employees/ 1,814 residents
Employee-generated residents outside San Bruno (indirect)	7,095 employees	86.4%[c] 1.88 persons/employee[f]	6,130 employees/ 11,525 residents
Total New Residents	—	—	*13,339 residents (4,332 assumed absorbed by onsite housing)*

Land Use	Square Footage/Units/ Employees	Generation Rate	Projected Employees/ Residents/Households
Households			
On-site households (direct)	1,499 households	—	1,499 households
Employee-generated households in San Bruno (indirect)	1,814 residents	2.89 persons/household[b]	628 households
Employee-generated households outside San Bruno (indirect)	11,525 residents	2.80 persons/household[g]	4,116 households
Total New Households	—	—	*4,744 households (1,499 units of housing demand met onsite)*

Note: sums may not total due to rounding.

[a] YouTube campus Development – Phase I Submittal. To City of San Bruno, Community Development Department. January 3, 2019.

[b] State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2019. Sacramento, California, May 2019. Available: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/. Accessed: June 6, 2019.

[c] 3,204 San Bruno residents who worked in place of residence / 23,606 jobs in San Bruno = 13.6 percent of San Bruno residents who also work in the City. Assumption for outside San Bruno is the remainder.

[d] 3,204 worked in place of residence. U.S. Census Bureau, American Fact Finder, American Community Survey (ACS). 2017. "Sex of Workers by Place of Work—Place Level, San Bruno City, California." 2013–2017 ACS 5-Year Estimates, ID B08008. Available: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t. Accessed on March 13, 2019.

[e] The economy of San Bruno CA employs 23,606 people. DataUSA, San Bruno, California. 2019. "Economy." Available: https://datausa.io/profile/geo/san-bruno-ca/#economy. Accessed on March 13, 2019.

[f] 7,758,535 residents / 4,136,195 jobs = 1.88. Refer to Table 3.7-4.

[g] State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011-2019. Sacramento, California, May 2019. Based on 2019 Bay Area population not in group homes divided by occupied housing units.

As discussed in Section 3.8, *Population and Housing*, the Project's Maximum Office Scenario was analyzed as the "worst-case scenario" because it would generate the greatest number of new residents (2,510) and housing units inside (869) and outside (5,695) the city when factoring in both direct and indirect population and housing growth and would generate the greatest number of employees (9,840). Construction and operation of the Project under the Maximum Office Scenario was analyzed in Section 3.8 and found to not generate substantial unplanned population growth in the city or region, and impacts were determined to be less than significant. As shown above in Table 5-5, the Residential Alternative would generate a lower number of new residents (1,814) and employees (7,095) than the Project. The Residential Alternative would generate a need for fewer housing units inside (628) and outside (4,116) the city than the Project, constructing more housing units than the generated need within the City of San Bruno. Therefore, because the Residential Alternative would generate a lower number of residents and employees generating less need for housing units inside and outside the city, population and employment growth from the Residential Alternative would be within Plan Bay Area's long-term growth projections for the city, as is the case for the Project. As such, Residential Alternative impacts regarding population and housing would be ***less than significant*** and less than the less-than-significant impact of the Project.

5.4.2.9 Public Services and Recreation

Fire

The Residential Alternative would increase the Fire Department's service population by 7,880 persons, an increase of 2,338 person over the Project's fire service population increase of 5,542 people, applying the same methodology for calculating fire service population used in Section 3.9, *Public Services and Recreation.*[7] An increase in the service population would be expected to increase the number of calls for fire protection and emergency services, putting strain on fire protection facilities and equipment. Therefore, on account of the increased service population, the impacts on fire protection services resulting from the Residential Alternative would be greater than those of the Project. However, similar to the Project, this impact would be reduced to a less-than-significant level with payment of the San Bruno development impact fee (DIF). A portion of the DIF would be used for public safety, including fire capital facilities and infrastructure, including equipment (e.g., vehicles). As such, Residential Alternative impacts on fire protection would be ***less than significant***, and greater than the Project's impact, which would also be less than significant.

Police

As shown in Table 5-5 above, the Residential Alternative could generate 4,332 new residents and 7,095 employees in the City of San Bruno, increasing the daytime service population to 58,913. This would result in an officer-per-resident ratio of 8 per 10,000 daytime residents. As discussed in Section 3.9, *Public Services and Recreation*, the San Bruno Police Department ratio goal is to meet the national average of 16.6 officers for every 10,000 daytime residents. The Project under the Maximum Housing Scenario would result in an 8-per-10,000-officer per resident ratio and the Maximum Office Scenario could result in a 7.95-per-10,000-officer per resident ratio. Therefore, the impacts on police services resulting from the Residential Alternative would be similar to those of the Project under the Maximum Housing Scenario and slightly greater than those under the Maximum Office Scenario. However, this impact would be similarly reduced to less-than-significant levels with payment of the DIF. A portion of the DIF would be used for public safety, such as police capital facilities and infrastructure including equipment (e.g., vehicles). As such, Residential Alternative impacts on police protection services would be ***less than significant*** and similar to the Project's impacts.

Schools

As shown below in Table 5-6, the Residential Alternative would generate 315 elementary students according to the San Bruno Park School District's (SBPSD's) student generation rates. As discussed in Section 3.9, *Public Services and Recreation*, the Project under the Maximum Housing Scenario would generate 120 elementary students according to SBPSD's generation rate. Therefore, the Residential Alternative would have a greater impact on area elementary schools than the Project. However, this impact would be similarly reduced to less-than-significant levels with the payment of developer fees, which are deemed to fully mitigate the impact of new development on school districts. As such, Residential Alternative impacts would be ***less than significant*** but greater than the Project's impact.

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[7] As discussed in Section 3.9, *Public Services and Recreation,* the fire department considers a project's service population to include the total residential population and half of the total employment population.

Table 5-6. Estimated Students Generated in San Bruno Park School District – Residential Alternative

Block	New Market Rate Units	Student Generation Rate	Students
Single-family Detached	0	0.42	0
Single-family Attached	0	0.27	0
Multi-family Units	1,499	0.21	315
Total	**1,499**		**315**

Source (generation rates): DecisionInsite Team, San Bruno Park School District, Student Generation Rate Assumptions, August 10, 2018.

As shown below in Table 5-7, the Residential Alternative would generate 300 high school students according to the San Mateo Union High School District's (SMUHSD's) student generation rates. As discussed in Section 3.9, *Public Services and Recreation*, the Project under the Maximum Housing Scenario would generate 115 high school students according to SMUHSD's generation rate. Therefore, the Residential Alternative would have a greater impact on area high schools than the Project. However, this impact would be similarly reduced to less-than-significant levels with the payment of developer fees, which are deemed to fully mitigate the impact of new development on school districts. As such, Residential Alternative impacts would be ***less than significant*** but greater than the Project's impact.

Table 5-7. Estimated Students Generated in San Mateo Union High School District – Residential Alternative

Block	New Market Rate Units	Student Generation Rate	Students
Housing Units	1,499	0.2	300
Total	**1,499**		**300**

Source (generation rates): San Mateo Union High School District, October 2014, 2014 Developer Fee Justification Study for San Mateo Union High School District.

Libraries

As shown in Table 5-5 above, the Residential Alternative could generate 4,332 new residents and 7,095 employees in the city, which could increase usage of library facilities. As discussed in Section 3.9, *Public Services and Recreation*, the San Bruno Public Library currently has a shortage in its book collection, seating, public computers, storytime space, group study areas, parking, and meeting room space. While the City has no established standard or service ratio for library space per capita, it is likely that the 4,332 residents generated by the Residential Alternative would create more demand per capita on library services than the 1,656 residents generated by the Project under the Maximum Housing Scenario. Therefore, the Residential Alternative would have a greater impact on library services than the Project. However, this impact would be similarly reduced to less-than-significant levels with payment of the DIF. A portion of the DIF would be used to acquire and/or improve new library facilities. As such, Residential Alternative impacts on library services would be ***less than significant*** but greater than the Project's impact.

Parks

As discussed above under Section 5.4.2.8, *Population and Housing*, the Residential Alternative could generate 4,332 new residents in the City of San Bruno. Table 5-8 shows the acreage of park land that would be required for the additional residents added under the Residential Alternative in order to meet the General Plan's park land-to-residents goal.

Table 5-8. Calculated Acreage of New Park Land Required to Meet General Plan Goal

Park Land	Number of New Residents	Number of Acres Recommended per Resident[a]	Total New Park Land Acreage Recommended
Residential Alternative	4,332	0.0045	19.494

Source:
[a] City of San Bruno 2009

As discussed in Section 3.9, *Public Services and Recreation*, the city currently has 191 acres of park land available for a population of 44,859, resulting in a shortage of 11 acres of park land according to the City's General Plan park land goal of 4.5 acres per 1,000 residents. The Residential Alternative, which would require 19.5 acres under full buildout to satisfy the General Plan goal, would further increase the City's park land deficit, resulting in increased demand on existing park land. Compared to the Project, which under the Maximum Housing Scenario would require 7.5 acres under full buildout, the Residential Alternative would have a greater impact on existing park land. However, this impact would be similarly reduced to less-than-significant levels with payment of the DIF. With the payment of the DIF, this alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered park facilities in order to maintain acceptable service levels. Impacts would be ***less than significant*** but greater than the Project's impact.

5.4.2.10 Transportation

As with the Project, the Residential Alternative would generate more people driving, walking, biking, or riding transit than under existing conditions. The Residential Alternative, as a result of having residential units in place of office space, would generate slightly more daily vehicle trips but fewer peak-hour vehicle trips compared to the Project. At the same time, however, residential trips are typically shorter in distance than office trips and less concentrated in a peak hour than office commute trips. As shown in Table 3.10-6 in Section 3.10, *Transportation*, of this ~~Draft~~ EIR, San Mateo County-based trips between home and work are approximately twice as long as trips made between the home and other destinations for activities such as shopping, recreation, or visiting friends and family. Although many residents in the Residential Alternative would travel to work, not all residents may work, and many may work locally, given the high jobs-to-housing ratio in San Mateo County. Despite the higher number of total daily trips, the average length of these trips is anticipated to be shorter than the average trip length for the Project and daily VMT per Service Population would be lower than with the Project. Therefore, impacts on VMT under the Residential Alternative would likely be significant but less than the significant impact of the Project and ***less than significant with mitigation*** under both Existing Plus Residential Alternative and Cumulative conditions. As such, the Residential Alternative would avoid the Project's significant impact on VMT.

Elements of the project design, such as the streetscape elements, would remain the same as those of the Project (e.g., wider sidewalks, improved crossings for people walking, and dedicated bicycle infrastructure). Vehicle and bicycle parking would be provided in a manner that meets applicable Municipal Code requirements.

Overall, the Residential Alternative would slightly increase travel to and from the Project Site but would have no project-specific or cumulative impact on construction, transit, walking/accessibility, bicycle travel, or emergency vehicle access. All of these impacts were found to be less than significant in the case of the Project, either individually or cumulatively, and the same would hold true for this alternative.

Under the Project, cumulative freeway queuing impacts (Impact C-TRA-9) would be mitigated to a less-than-significant level at the I-280 northbound off-ramp with implementation of **Mitigation Measure TRA-1**, which would reduce trip generation sufficiently to reduce queue lengths to fit within the available off-ramp storage capacity. The Residential Alternative would increase the number of PM peak-hour inbound trips as compared to the Project by approximately 175 vehicles. PM peak-hour inbound trips are the cause of the cumulative freeway queuing impact at the I-280 northbound off-ramp. TDM measures, such as those required under **Mitigation Measure TRA-1**, are notably less effective for residential uses than for office uses. Both because the number of inbound trips queued at the I-280 off-ramp would be substantially under this alternative compared to the Project, and because the TDM program would be less effective at reducing residential trips, cumulative freeway queuing impacts would be ***significant and unavoidable*** for the Residential Alternative, and greater than the Project's impact.

5.4.2.11 Utilities and Service Systems

Water and Wastewater Facilities

Table 5-9, below, identifies anticipated water demands and subsequent wastewater generation for the Residential Alternative compared to the Project (Maximum Housing Scenario). The Maximum Housing Scenario is analyzed in Section 3.11, *Utilities and Service Systems*, as the "worst-case scenario" for water use and wastewater generation. Water use and wastewater generation are based on water use rates identified in the City's 2015 Urban Water Management Plan (UWMP) (West Yost Associates 2016).

Table 5-9. Anticipated Water Demand and Wastewater Generation for the Residential Alternative Compared to the Project (Maximum Housing Scenario)

Proposed Land Use	Unit Demand Factor[b]	Existing	Existing Water Demand (MGD)	Full Quantity at Buildout (including Existing to remain)	Future Water Demand (existing + buildout) (MGD)	Net Increase in Water Demand (MGD)
Project (Maximum Housing Scenario)						
Office	0.13 gpd/sf	1,557,847 sf	0.20	3,500,743 sf	0.46	0.26
Retail	0.19 gpd/sf	121,846 sf	0.02	121,846 sf	0.02	0
Hotel	120 gpd/room	133 rooms	0.02	133 rooms	0.02	0
Residential	120 gpd/du	0 du	0.00	573 du	0.07	0.07
				Total	**0.57 MGD**	**0.33 MGD**
Residential Alternative						
Office	0.13 gpd/sf	1,557,847 sf	0.20	3,331,483 sf	0.43	0.23
Retail	0.19 gpd/sf	121,846 sf	0.02	121,846 sf	0.02	0
Hotel	120 gpd/room	133 rooms	0.02	133 rooms	0.02	0
Residential	120 gpd/du	0 du	0.00	1,499 du	0.18	0.18
				Total	**0.65 MGD**	**0.41 MGD**

Source (Project analysis): West Yost Associates 2019

Notes:

[a] Landscaping is not considered a significant source of water usage under this analysis, because landscaping plans would include water-saving strategies such as bioretention planters, turf, and drought-tolerant vegetation.

[b] Unit Demand Factors account for irrigation demand (West Yost Associates 2016).

du = dwelling unit

gpd = gallons per day

MGD = millions of gallons per day

sf = square feet

As displayed in Table 5-9, the Residential Alternative would result in 0.08 million gallon per day (MGD) more of water demand compared to the Project (0.41 MGD – 0.33 MGD = 0.08 MGD), and subsequently 0.08 MGD more of generated wastewater. As discussed above in Section 5.4.2.8, *Population and Housing*, the population and employment growth that would result from the Residential Alternative would be within Plan Bay Area 2040's long-term growth projections for the city. Therefore, the Residential Alternative's water demand would be accounted for in the City's UWMP. Consequently, impacts on water supply would be ***less than significant*** but greater than the less-than-significant impacts of the Project.

With regard to water infrastructure, capacity impacts are determined based on required fire flow. The Water System Hydraulic Evaluation in Appendix 3.11-2 of this ~~Draft~~ EIR determined that the Project's estimated fire flow of 2,500 to 3,000 gallons per minute would be adequately served by existing and proposed water infrastructure. The fire flow requirement for the Residential Alternative would be the same based on the City's Water System Master Plan recommendations for the types of land uses in this alternative; therefore, impacts on water infrastructure capacity would be ***less than significant*** and similar to the Project's less-than-significant impact (despite the slight increase in overall water demand).

With regard to wastewater treatment demand and infrastructure capacity, according to the City of South San Francisco's Water Quality Control Plant (WQCP) Facility Plan (Facility Plan Update) of April of 2011, dry-weather flows to the WQCP averaged approximately 8.66 MGD between the period of 2004 through 2009, and current dry-weather flows are estimated at approximately 9.0 MGD.[8] The dry-weather flow capacity of the WQCP (at a dry-weather capacity of 13 MGD) therefore has a remaining treatment and disposal capacity of approximately 4 MGD. The additional 0.08 MGD of wastewater that would be generated by this alternative, compared to the Project, could therefore be accommodated by the South San Francisco/San Bruno WQCP. The Sanitary Sewer Impact Study (SSIS) in Appendix 3.11-3 of this ~~Draft~~ EIR evaluates the sufficiency of the local wastewater conveyance system to serve the Project's estimated wastewater flow, and includes an analysis of the Increased Height Alternative (Maximum Housing Scenario) evaluated below (refer to Section 5.4.3.11, *Utilities and Service Systems*). The SSIS determined that, like the Project, the proposed wastewater system would have adequate capacity to serve the wastewater generated by the Increased Height Alternative provided that **Mitigation Measure UT-1** is implemented to mitigate potential impacts on the pipe system along San Bruno Avenue West between Traeger Avenue and Elm Avenue. Based on the substantially similar estimated net increase in wastewater generation between the Residential Alternative and the Increased Height Alternative (0.41 MGD compared to 0.40 MGD), it is anticipated that the sanitary sewer system would also be able to accommodate flows from the Residential Alternative.

Overall, impacts on water resources and water and wastewater facilities under the Residential Alternative would be ***less than significant with mitigation*** and greater than impacts under the Project due to the increased water demand and wastewater generation.

Stormwater Facilities

As described above under Section 5.4.2.5, *Hydrology and Water Quality*, the increased residential density would result in an increase in impervious area within the Project Site, when compared to Project conditions. This increase in impervious area could result in increased runoff rates and volumes, potentially affecting the stormwater drainage system, which is currently prone to capacity exceedances. The Residential Alternative would be required to implement **Mitigation Measures HWQ-2** to identify site-specific drainage facilities

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8 City of South San Francisco, accessed at: http://www.ssf.net/departments/public-works/water-quality-controlplant/treatment-process

necessary to maintain or reduce drainage flows to the existing system, and implement the necessary drainage improvements during construction. Therefore, impacts on stormwater facilities under the Residential Alternative would be ***less than significant with mitigation*** but greater than the Project's impacts, which would also be less than significant with mitigation.

Solid Waste Generation

As described in Section 3.11, *Utilities and Service Systems*, the Project's Maximum Office Scenario would result in the greatest amount of operational solid waste (i.e., approximately 52.6 daily tons, or 19,215.1 annual tons that would be generated by the 9,840 net new employees on the Project Site). As described above in Section 5.4.2.8, *Population and Housing*, the Residential Alternative would generate 7,095 onsite employees through the construction of new office space and up to 4,332 onsite residents in the 1,499 new housing units. Therefore, based on solid waste generation rates of 10.7 pounds per employee per day and 4.4 pounds per resident per day of solid waste generated in the City of San Bruno, the Residential Alternative would result in a total of approximately 38.0 daily tons (13,854.8 annual tons) of direct onsite employee-generated solid waste and approximately 9.5 daily tons (3,478.6 annual tons) of direct onsite resident-generated solid waste. Collectively, this would result in a combined total of approximately 17,333.6 annual tons of generated solid waste, 1,878.5 fewer annual tons than would be generated under the Project (Maximum Office Scenario). Therefore, the Residential Alternative would have a ***less-than-significant impact*** related to solid waste generation, and a lesser impact than the Project.

5.4.3 Increased Height Alternative

Unless otherwise stated, the following analysis of the Increased Height Alternative assumes the same development scenario (Maximum Office or Maximum Housing) that was assumed for each resource topic in the Project analysis presented in Chapter 3, *Environmental Impact Analysis*, of this ~~Draft~~ EIR.

5.4.3.1 Visual Quality

The Increased Height Alternative would allow housing, hotel, and office buildings on the Project Site to reach a height limit of 70 feet/five stories, compared to 50 feet/three stories with the Project. This change would allow for a greater density of residential and hotel uses compared to the Project, while the intensity of office development would remain. To permit building heights above three stories, this alternative could only be adopted if voters were to approve a modification to Ordinance No. 1284 to increase the current building height limits on the Project Site. While it includes provisions limiting building heights, Ordinance No. 1284 is a growth control measure and not a regulation governing scenic quality at the Project Site. Therefore, the taller building heights under this alternative would not conflict with a regulation governing scenic quality at the Project Site. Taller building heights would not have a substantial adverse effect on a scenic vista because there are no scenic vistas available in the vicinity of the Project Site.

Allowing taller buildings on the Project Site would enable site designs that include more volume within a building of the same footprint, which would in turn allow for increased open space and landscaping on the Project Site. This is considered an aesthetic benefit compared to the Project. All other visual quality features of the Increased Height Alternative would be the same as or substantially similar to those of the Project, including those related to potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features. This alternative would similarly incorporate the same objectives and measures in the Specific Plan to maintain an aesthetically high-quality environment in the Plan Area. Therefore, aesthetic impacts of the

Increased Height Alternative would be ***less than significant*** and similar to the Project's less-than-significant impacts.

The Increased Height Alternative would introduce similar sources of light and glare to the Project Site as the Project, such as vehicle headlights, glare from buildings, and signage. Building light levels could be higher than those of the Project due to the increased building height, as could vehicle headlights given the anticipated increase in trip generation. Nonetheless, with adherence to General Plan and Specific Plan policies discussed in Section 3.2, *Visual Resources*, Impact AES-2, impacts related to the introduction of new light and glare that could affect daytime or nighttime views in the area would be ***less than significant***, albeit greater than those of the Project.

5.4.3.2 Air Quality

The Increased Height Alternative would allow housing, hotel, and office buildings on the Project Site to reach a height limit of 70 feet/five stories, compared to 50 feet/three stories with the Project. This change would allow for a greater density of residential and hotel uses compared to the Project, while the intensity of office development would remain. All other features of the Increased Height Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features.

The same Project goals, policies, and development standards found to be consistent with the goals and applicable control measures identified in *2017 Clean Air Plan* would apply to the Increased Height Alternative. As such, the Increased Height Alternative would support the *2017 Clean Air Plan* and would not conflict with its implementation. This impact would be the same as that of the Project and would be ***less than significant***. No mitigation would be required. Similar to the Project, the Increased Height Alternative would not result in any odor-generating land uses and would not violate BAAQMD Regulation 7. Accordingly, odor impacts under the Increased Height Alternative would be the same as under the Project and would be ***less than significant***. No mitigation would be required.

The Increased Height Alternative would result in greater cumulative and health risk impacts during construction and operation than the Project. The additional residential and hotel square footage allowed under the Increased Height Alternative are anticipated to increase construction activities and associated criteria air pollutant emissions compared to the Project. As such, implementation of **Mitigation Measures AQ-1** through **AQ-6** would be required to reduce construction emissions and associated health risks impacts under the Increased Height Alternative. However, because it cannot be concluded that offset programs (**Mitigation Measure AQ-6**) would be available in the future at the time and in the amount needed for any given future development, this alternative would not avoid the Project's ***significant and unavoidable*** criteria air pollutant emissions impact during construction (in fact, impacts would be greater).

Operational criteria pollutant emissions were estimated for the Increased Height Alternative under existing conditions (2017) and 2040 conditions with and without the Increased Height Alternative using the same methodology as described for the Project and presented in Table 5-10. As shown in Table 5-10, buildout of the Increased Height Alternative (assuming the worst-case Maximum Office Scenario[9]) would result in a net increase of approximately 81~~67~~ pounds of (reactive organic gas) ROG, 70~~27~~ pounds of nitrogen oxides (NO_X), 536~~553~~ pounds of particulate matter 10 microns or smaller in diameter (PM10), and 89~~91~~ pounds of PM2.5 per day compared to 2040 without the Increased Height Alternative ~~existing~~ conditions. When

[9] See Section 5.4.3.10, *Transportation*, for additional details.

compared to the Project, this is an increase ~~decrease of approximately 1 pound of reactive organic gas (ROG) and an increase~~ of approximately 1 pound of ROG, NO_X, PM10, and PM2.5.

Table 5-10. Estimated Maximum Daily Unmitigated Emissions from the Increased Height Alternative (pounds/day)

Condition/Source	ROG	NO_X	CO	PM10	PM2.5
Existing (2017)					
Area Sources	43	0	0	0	0
Energy Sources	1	9	7	1	1
Mobile Sources	23	61	322	188	32
Stationary Sources	4	17	10	1	1
Total Existing [a]	**71**	**87**	**339**	**190**	**33**
2040 without Increased Height Alternative					
Area Sources	43	0	0	0	0
Energy Sources	1	9	7	1	1
Mobile Sources	9	18	127	206	34
Stationary Sources	4	17	10	1	1
Total 2040 without Increased Height Alternative [a]	**56**	**44**	**144**	**207**	**35**
2040 with Increased Height Alternative					
Area Sources	96	0	0	0	0
Energy Sources	2	21	18	2	2
Mobile Sources	32	65	455	740	121
Stationary Sources	6	28	16	1	1
Total 2040 without Increased Height Alternative [a]	137	114	489	743	124
Net Increase with Increased Height Alternative					
2040 with Increased Height Alternative v. ~~Existing~~ 2040 without Increased Height Alternative [a]	~~**67**~~ **81**	~~**27**~~ **70**	~~**150**~~ **345**	~~**553**~~ **536**	~~**91**~~ **89**

Source: CalEEMOD and CT-EMFAC. See Appendix 3.2-1.

Notes:

For the 2040 without Increased Height Alternative, the daily emissions presented are maximums anticipated under the Maximum Office Scenario, which would result in more VMT than the Residential Scenario. As mobile sources make up the largest portion of emissions, the total emissions presented above represent the worst-case scenario.

[a] See note above. Values may not add up due to rounding.

As was the case with the Project, the particulate matter emissions under the Increased Height Alternative would exceed BAAQMD's project level thresholds. These emissions could contribute to ozone formation and other air pollution in the San Francisco Bay Area Air Basin, which at certain concentrations can contribute to short- and long-term human health effects if left unmitigated. Implementation of **Mitigation Measures TRA-1** and **AQ-7** would be required to reduce operational emissions and health risks from criterial air pollutants under the Increased Height Alternative. **Mitigation Measure TRA-1** would reduce mobile source emissions, resulting in a reduced net increase of approximately 79~~64~~ pounds of ROG, 63~~20~~ pounds of NO_X, 439~~457~~ pounds of PM10, and 73~~75~~ pounds of PM2.5 per day compared to 2040 without Increased Height Alternative ~~existing~~ conditions. When compared to the Project's mitigated emissions, ROG, ~~emissions increased by approximately 1 pound per day and~~ NO_X, PM10, and PM2.5 emissions each increased by approximately 1 pound per day. However, because it cannot be concluded that offset programs (**Mitigation Measure AQ-7**) would be available in the future at the time and in the amount needed for any given future development, this alternative would not avoid the Project's ***significant and unavoidable*** criteria air pollutant emissions impact during operation, and impacts would be similar to those of the Project. .

In addition, increased development under the Increased Height Alternative could increase exposure of sensitive receptors to significant health risks associated with TAC emissions and criteria air pollutants during construction and operation. Therefore, **Mitigation Measure AQ-8** would be required to reduce TAC hazards. However, similar to the Project, it is possible that mitigation for future project health risks may be inadequate to reduce impacts below BAAQMD threshold levels. As was the case for the Project, health risk impacts from TAC emissions and criteria air pollutants would be ***significant and unavoidable*** and greater than the Project's significant-and-unavoidable health risk impacts.

Cumulative air quality and health risk impacts associated with the Increased Height Alternative would be greater than those of the Project. As was the case with the Project, implementation of **Mitigation Measures AQ-1** through **AQ-7** and **TRA-1** would reduce air quality impacts and associated health risks from criteria air pollutants during construction and operation, though impacts would still be greater than those of the Project given the increase in activities and emissions. However, for the reasons stated above regarding future offset programs **(Mitigation Measures AQ-6 and AQ-7)**, cumulative operational air quality impacts are conservatively assumed to be ***significant and unavoidable.***

In addition, implementation of **Mitigation Measures AQ-1** through **AQ-8** along with Specific Plan Policies 6-11 and 6-13 would reduce construction and operational health risks to existing and future receptors. However, similar to the Project, there may be instances where conditions preclude the reduction of health risk below adopted thresholds and expose receptors to cumulative health risks. Future development projects under the Increased Height Alternative could generate increased levels of DPM and PM2.5 given increased activities that could expose adjacent receptors. Therefore, this cumulative impact from TAC emissions would be ***significant and unavoidable***, and greater the Project's significant-and-unavoidable impact.

5.4.3.3 Energy

The Increased Height Alternative would allow for a greater density of residential and hotel uses compared to the Project, while the intensity of office development would remain. All other features of the Increased Height Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features. Furthermore, the goals, policies, and development standards proposed for the Project would be the same under the Increased Height Alternative.

The Increased Height Alternative would result in increased energy impacts from the Project during construction and operation. The additional residential and hotel uses allowed under the Increased Height Alternative are anticipated to increase construction activities and associated energy usage relative to the Project. However, similar to the Project, implementation of **Mitigation Measures GHG-1** and **AQ-3** would be required to reduce energy use and consumption impacts during construction. These impacts would ***less than significant with mitigation***, but greater than the impacts of the Project, which would also be less than significant with mitigation.

Operational energy use was estimated for the Increased Height Alternative under existing (2017) and 2040 conditions using the same methodology as described for the Project and presented in Table 5-11. As shown in Table 5-11, 728,892 million British thermal units (BTUs) of energy (assuming the worst-case Maximum Office Scenario[10]) are anticipated in 2040. This is an increase of 424,532 (139 percent) and 8,661 (1.2 percent) million BTUs of energy consumption from existing and Project conditions, respectively.

Table 5-11. Estimated Operational Energy Consumption under the Increased Height Alternative

Analysis Condition/Source	Million BTU/Year
Existing (2017)	
Electricity	94,036
Natural Gas	32,442
Mobile - gasoline	160,644
Mobile - diesel	17,238
Total Existing[a]	**304,360**
2040 With Project	
Electricity	224,394
Natural Gas	78,883
Mobile - gasoline	351,801
Mobile - diesel	65,153
Total 2040 With Project[a]	**720,231**
2040 With Increased Height Alternative	
Electricity	233,007
Natural Gas	79,376
Mobile - gasoline	352,599
Mobile - diesel	63,910
Total 2040 With Increased Height Alternative[a]	**728,892**
Net Change between Project and Increased Height Alternative	
2040 With Proposed Project vs. Increased Height Alternative	8,661 (+1.2%)
Energy per Square Foot (MMBTU/sf)	
Existing (2017)	0.17
2040 With Project	0.17
2040 With Increased Height Alternative	0.23

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs.

Notes: As noted in Section 3.3, *Energy*, the energy analysis reflects implementation of quantifiable State measures that will reduce energy consumption (e.g., Senate Bill 100) and Specific Plan policies related to use of green consumer products and installation of low-flow fixtures. In addition, for the 2040 with Specific Plan condition, the energy consumption presented is the maximum anticipated under the Increased Height Alternative's Maximum Office Scenario. If the allowable land use exchange to hotel or retail under the equivalency program would result in higher energy consumption than the base office use, those emissions are shown here. Therefore, the total energy consumption provided represents the worst-case scenario.

[a] Values may not add due to rounding.

Like the Project, it is anticipated that mobile gasoline and diesel consumption under the Increased Height Alternative would compose most of the energy consumption. However, unlike the Project, overall energy use per square foot under the Increased Height Alternative would increase in comparison with existing and

[10] See Section 5.4.3.10, *Transportation*, for additional details.

Project conditions, resulting in a potentially significant impact. However, implementation of **Mitigation Measure TRA-1** would reduce both annual gasoline and diesel usage by 13 percent by requiring a reduced drive-alone percentage, an annual monitoring study, and ongoing monitoring and evaluation. In addition, implementation of **Mitigation Measure GHG-2** would make voluntary sustainability design features required for the Increased Height Alternative, such as alternative transportation, green roofs, rooftop solar equipment, and LEED silver or equivalent certification. Moreover, Specific Plan policies, if fully implemented by all land uses under the Increased Height Alternative would significantly reduce energy use. Accordingly, energy use impacts under the Increased Height Alternative would not be inefficient, wasteful, or unnecessary. Impacts would be ***less than significant with mitigation***, and similar to the Project's less-than-significant energy impacts during operation given the similar demand levels.

5.4.3.4 Greenhouse Gases ~~and Energy~~

The Increased Height Alternative would allow for a greater density of residential and hotel uses compared to the Project, while the intensity of office development would remain. All other features of the Increased Height Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features.

The Increased Height Alternative would result in increased GHG impacts from the Project and would potentially conflict with an applicable, plan, policy, or regulation adopted for the purposes of reducing emission of GHGs during construction and operation. The additional residential and hotel uses allowed under the Increased Height Alternative are anticipated to increase construction activities and associated GHG emissions relative to the Project. However, similar to the Project, implementation of **Mitigation Measure GHG-1** would be required to reduce construction GHG impacts. These impacts would be ***less than significant with mitigation***, but greater than the Project's less-than-significant-with-mitigation impacts.

Operational area, energy, mobile, stationary, waste, and water emissions were estimated for the Increased Height Alternative under existing conditions (2017) and 2040 conditions with and without the Increased Height Alternative using the same methodology as described for the Project and presented in Table 5-12. As shown in Table 5-12, the 39,808 metric tons of carbon dioxide equivalent (CO_2e) (assuming the worst-case Maximum Office Scenario[11]) are anticipated in 2040. This is an increase of 27,640 ~~19,084~~ (227~~92~~ percent) metric tons of CO_2e from 2040 without Increased Height Alternative conditions. This is an increase of ~~and~~ 142 (less than 1 percent) metric tons of CO_2e from ~~existing and~~ Project conditions, ~~respectively,~~ slightly greater than the Project's increase of 27,498 ~~18,942~~ metric tons.

Table 5-12. Estimated Annual Specific Plan Operational GHG Emissions from the Increased Height Alternative (metric tons)

Condition/Source	CO_2	CH_4	N_2O	CO_2e	% of Total CO_2e
Existing (2017)					
Area Sources	<1	<1	<1	<1	<1%
Energy Sources	5,131	<1	<1	5,161	25%
Mobile Sources	13,583	2	1	13,982	67%
Stationary Sources	10	<1	<1	10	<1%
Waste Generation	335	20	<1	830	4%

[11] See Section 5.4.3.10, *Transportation* for additional details.

Condition/Source	CO_2	CH_4	N_2O	CO_2e	% of Total CO_2e
Water Consumption	437	9	<1	741	4%
Total Existing[a]	**19,496**	**32**	**1**	**20,724**	**100%**
2040 without Increased Height Alternative					
Area Sources	<1	<1	<1	<1	<1%
Energy Sources	1,945	<1	<1	1,959	16%
Mobile Sources	8,760	1	1	8,953	74%
Stationary Sources	10	<1	<1	10	<1%
Waste Generation	335	20	<1	830	7%
Water Consumption	114	9	<1	416	3%
Total 2040 without Increased Height Alternative [a]	**11,165**	**30**	**1**	**12,168**	**100%**
2040 with Increased Height Alternative					
Area Sources	<1	<1	<1	<1	<1%
Energy Sources	4,761	<1	<1	4,795	12%
Mobile Sources	31,469	2	2	32,160	81%
Stationary Sources	17	<1	<1	17	<1%
Waste Generation	805	48	<1	1,995	5%
Water Consumption	232	19	<1	840	2%
Total 2040 with Increased Height Alternative	**37,284**	**69**	**3**	**39,808**	**100%**
Net Increase with Increased Height Alternative					
2040 with Increased Height Alternative v. 2040 without Increased Height Alternative ~~existing~~	~~17,778~~ 26,120	~~37~~ 39	2	~~19,084~~ 27,640	-

Source: Refer to Appendix 3.2-1 for CalEEMod model outputs and mobile emissions calculations.

Notes: The emissions analysis reflect implementation of similar quantifiable state measures that will reduce GHG emissions (e.g., Senate Bill 100) and policies related to use of green consumer products and installation of low-flow fixtures as the Project. In addition, for the 2040 with Increased Height Alternative condition, the daily emissions presented are maximums anticipated under the Maximum Office Scenario, which would result in more VMT than the Maximum Residential Scenario. As mobile sources make up a large portion of emissions, the total emissions presented above represent the worst-case scenario.

[a] Values may not add due to rounding.

CH_4 = methane

N_2O = nitrous oxide

Implementation of **Mitigation Measure TRA-1** would reduce mobile source emissions to approximately 28,355 metric tons of CO_2e, but would still result in an increase of approximately 23,835 ~~15,279~~ metric tons of CO_2e (196~~73~~ percent) and 133 metric tons CO_2e (less than 1 percent) from 2040 without Increased Height Alternative ~~existing~~ and mitigated Project conditions, respectively. Nevertheless, the Specific Plan would result in significant VMT-related GHG emissions impacts after implementation of **Mitigation Measure TRA-1** on its own. In addition, Specific Plan policies, if fully implemented by all land uses under the Increased Height Alternative, would significantly reduce GHG emissions from other emission sources (e.g., waste, water, energy) consistent with the State's climate change goals. While the City, through the Specific Plan, would encourage implementation of voluntary sustainability features, there is no guarantee that all of these measures will be incorporated into the designs of all future developments under the Increased Height Alternative. This is a potentially significant impact. As such, implementation of **Mitigation Measure GHG-2** would make voluntary design features required for the Increased Height Alternative. Should all measures included in **Mitigation Measure GHG-2** be implemented by a future project sponsor, GHG impacts for non-transportation sectors would be less than significant and no further action would be required. However, because the extent of implementation of **Mitigation Measure GHG-2** is currently unknown for the Increased Height Alternative (e.g., applicability and feasibility), impacts from future development for non-transportation sectors could remain significant for some sectors if all strategies are not implemented for a particular project or equivalent measures are not identified by a project sponsor. For projects where all of the requirements of **Mitigation Measure GHG-2** (or their equivalent) are not implemented for non-transportation emissions and for all projects relative to transportation emissions where Mitigation Measure TRA-1 does not meet the 14.3 VMT/service population threshold, implementation of **Mitigation Measure GHG-3** is further required to reduce net operational GHG emissions through purchase of GHG mitigation credits. Accordingly, GHG impacts (which are inherently cumulative) would be ***less than significant with mitigation*** and similar to the Project's less-than-significant-with-mitigation GHG impacts during operation given the similar emission levels.

5.4.3.5 Hydrology and Water Quality

Compared to the Project, buildings under the Increased Height Alternative would be taller but with smaller footprints, allowing more of the Project Site to be in open space. Therefore, the Increased Height Alternative could provide more pervious area than the Project, which could reduce runoff and allow for more stormwater infiltration than the Project. It is estimated that the Increased Height Alternative would provide approximately 6.5 acres of additional open space compared to the Project. However, because much of the Project Site would overlie underground parking structures, the extent to which additional pervious area could be provided would likely be minimal. Because existing capacity deficiencies are present, a significant surface water drainage impact would still occur under the Increased Height Alternative. Similar to the Project, implementation of **Mitigation Measures HWQ-2** would be required to address existing storm drain capacity deficiencies and require project-level drainage studies to be conducted to identify site-specific drainage facilities to maintain or reduce drainage flows to the existing system, and implement necessary drainage improvements during construction.

The Increased Height Alternative would require more parking than the Project. It is assumed that the maximum depths of the proposed subterranean garages at the 801–851 Traeger Avenue and 1111 Bayhill Drive parcels would be greater compared to the maximum depths of the Project's proposed subterranean garages. Construction dewatering is anticipated, which could result in the exposure of pollutants from spills or other activities and may contaminate groundwater. The water table is deepest on the western side of the Project Site (approximately 110 feet mean sea level) and shallowest on the eastern side (approximately 8 feet mean sea level); therefore, the garages on the eastern side of the Project Site would require more dewatering.

As a measure of the potential impacts caused by construction dewatering, the estimated water level drawdown at potentially sensitive sites was estimated for the Project. The "maximum potential" scenario was developed to estimate potential construction dewatering volumes, discharge rates, and groundwater level changes due to construction dewatering, and is the construction dewatering scenario applied to the Project and the Increased Height Alternative. As a measure of the potential maximum impact of dewatering operations, the estimated water level drawdown within, and in the vicinity of, the Project Site was also estimated. While the volume of extraction is close to 10 percent of the total groundwater extractions from the South Westside Basin, given its short duration, it is not anticipated to significantly decrease groundwater supplies locally and within the Westside Groundwater Basin. In addition, given the Project Site (92.2 acres) is less than 1 percent of the Westside Groundwater Basin area (25,400 acres) and the current developed state of the Project Site, development under the Increased Height Alternative would not substantially interfere with groundwater recharge. In addition, implementation of **Mitigation Measure HWQ-1** would reduce groundwater impacts related to short-term drawdown associated with construction dewatering. The San Mateo County Health Department Groundwater Protection Program would be notified of planned activities associated with the Project Site. The Groundwater Protection Program would review construction plans to determine impacts to water quality as well as any waste discharge requirements during dewatering.

Other impacts would be similar to those of the Project as stormwater treatment measures, trash load reduction, erosion and sediment control measures, spill prevention plan, compliance with dewatering requirements, and design features would still be required, resulting in impacts that are less than significant with mitigation. It is assumed that, similar to the Project, proposed parking garages under the Increased Height Alternative would include appropriate structural design and water proofing, and would not require permanent dewatering. Specific Plan Policies 6-23 and 6-25, respectively, in the Specific Plan would reduce and address potential waterproofing failures in the garages. Therefore, groundwater supplies due to permanent dewatering activities would not be depleted.

Overall, impacts on hydrology and water quality under the Increased Height Alternative would be ***less than significant with mitigation*** but greater than the less-than-significant impact of the Project due to the increased potential for construction dewatering.

5.4.3.6 Land Use and Planning

The Increased Height Alternative would allow housing, hotel, and office buildings on the Project Site to reach a height limit of 70 feet/five stories, compared to 50 feet/three stories with the Project. This change would allow for a greater density of residential and hotel uses compared to the Project, while the intensity of office development would remain. These changes would enable more of the Project Site to be designed as open space (taller buildings allow increased density within the same footprint as a shorter building), and provide more open space than the Project. They would also allow for a substantial increase in the number of housing units in the housing and mixed-use overlay zones, and in turn would require more parking than the Project. All other features of the Increased Height Alternative would be the same as or substantially similar to those of the Project, including the potential civic use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features. This includes that the same goals, policies, land use classifications, and development standards proposed for the Project. The Residential Alternative proposes the same types of land uses as the Project but in different quantities, which are consistent with existing uses on the site and in the vicinity. Therefore, the Specific Plan under the Increased Height Alternative would result in improved connectivity within the community through policies and improvements, as would the Project.

Like the Project, this alternative proposes office and hotel uses for the portion of the site within the 65 dB CNEL noise contour, which are not restricted uses under the Airport Land Use Compatibility Plan. The alternative would foster compact infill development and jobs in proximity to transit in order to reduce VMT and GHG emissions, consistent with the goals and objectives of Plan Bay Area 2040. The alternative would be implemented through revisions to the proposed Specific Plan and to the proposed Zoning Ordinance. . The alternative would include pedestrian amenities and alternative transportation improvements consistent with the Walk 'N Bike Plan. This alternative could only proceed with voter approval to modify Ordinance No. 1284 to increase the current building height limits on the Project Site. Overall, like the Project, this alternative would not conflict with plans or policies intended to reduce an environmental effect with implementation of the EIR mitigation measures. Land use and planning impacts under the Increased Height Alternative would be similar to those of the Project, and would be ***less than significant with mitigation***.

5.4.3.7 Noise

As compared to the Project, the Increased Height Maximum Residential Alternative would allow housing, hotel, and office buildings on the Project Site to reach a height limit of 70 feet/five stories, compared to 50 feet/three stories with the Project. The Increased Height Alternative Maximum Housing scenario would allow for a greater density of residential and hotel uses compared to the Project, while the intensity of office development would not change. The Increased Height Alternative Maximum Office Scenario would retain the same square footage of office and retail space as the Project but would allow for an increase of 31,661 square feet of hotel space at the location of the existing hotel on the 1050 Bayhill Drive parcel.

From a noise perspective, the Maximum Housing and Maximum Office Scenarios of the Increased Height Alternative would result in the same or similar impacts for all noise topics. Note that traffic would be slightly higher under the Increased Height Alternative Maximum Office Scenario than the Increased Height Alternative Maximum Housing Scenario. For this reason, quantitative traffic noise modeling was conducted for this scenario.

Table 5-13 shows traffic noise levels under the Project and under the Increased Height Alternative, and shows the Project-related traffic noise increases and Increased Height Alternative-related traffic noise increases along roadway segments in the vicinity of the Project Site for 2040 conditions. Note that, as is the case with the Project noise analysis, the traffic noise summary table shows only roadway segments with an increase of 2 dB or more (when rounded) attributable to the alternative. As shown in the table, the Increased Height Alternative would increase traffic noise levels along analyzed roadway segments by an estimated 0.1 dB. As a change in noise of approximately 3 dB is considered barely noticeable, minor increases of noise on the order of one-tenth of a decibel would not be perceptible. For this reason, traffic noise impacts under the Increased Height Alternative would be approximately the same as those under the Project, and would be less than significant.

With regard to non-traffic-related noise impacts, note that this alternative would not alter the construction or operational (non-mobile) assumptions analyzed under the Project. The assumptions made about construction activities associated with future projects under the Specific Plan would be the same; therefore, daytime construction noise impacts would the same as those identified for the project, and would be less than significant. Nighttime construction noise impacts would also be the same as those identified under for the Project, and would be potentially significant. As was the case for the Project, **Mitigation Measure NOI-1** would be required to reduce nighttime construction noise impacts to less-than-significant levels under this alternative. Implementation of this mitigation measure would reduce noise impacts related to nighttime construction of future projects under the Specific Plan to less-than-significant levels. With regard to construction vibration, potential construction-related vibration impacts under this alternative would also be the same as those identified for the Project, and would be less than significant.

The potential siting of noise-generating uses for future projects under the Specific Plan, such as HVAC equipment, emergency generators, and the use of sound-amplifying equipment, would be the same as disclosed in the Project analysis, and would be potentially significant under the Increased Height Alternative. **Mitigation Measures NOI-2** and **NOI-3** would be required to reduce impacts under this alternative. As with the Project, implementation of these mitigation measures would reduce noise impacts related to the siting of noise generating uses under the Increased Height Alternative to less-than-significant levels.

Overall noise impacts associated with the Increased Height Alternative would be ***less than significant with mitigation*** and similar to the Project's impacts.

Table 5-13. Modeled Traffic Noise Impacts on Existing Land Uses

Roadway	Segment	Year 2040 Without Project (dB L_{dn})[a]	Year 2040 With Project[a,b] (dB L_{dn})	Year 2040 Max Office Increased Height Alternative[a,b] (dB L_{dn})	Project-related Increase[c, d]	Year 2040 Max Office Increased Height Alternative-related Increase[c, d]	Type of Land Use	Applicable Compatibility Standard	Exceeds Compatibility Standard?	Allowable Increase	Exceeds Allowable Increase?
Bayhill Drive	West of El Camino Real	59.2	61.0	61.1	1.8	1.9	O/C[e]	70.0	No	5	No
Bayhill Drive	West of Cherry Avenue	55.5	58.5	58.6	3.0	3.1	O/C[e]	70.0	No	5	No
Elm Avenue	North of San Bruno Avenue	53.3	56.0	56.1	2.7	2.8	O/C[e]	70.0	No	5	No
Traeger Avenue	North of San Bruno Avenue	55.6	57.8	57.9	2.2	2.3	O/C[e]	70.0	No	5	No

Notes:

[a] Note that modeled traffic noise levels are based on modeling of traffic noise only and do not account for background noise levels (partly because it is not feasible to measure ambient noise levels along every modeled roadway segment). This is a conservative approach because a very high background level (measured) would mask any noise increases attributable to Project traffic. It is appropriate for the analysis of potential Project-related traffic noise increases/impacts.

[b] Based on traffic volumes from Maximum Office Scenario, which are higher than those of Maximum Housing Scenario.

[c] Year 2040 with-Project values minus year 2040 without-Project values

[d] Only segments with a 2 dB increase over without-Project conditions (when rounded to the nearest whole number) are presented in this table. Refer to Appendix 3.7-1 for a full summary of Specific Plan traffic noise modeling results.

[e] O/C = office buildings, business, commercial, and professional

5.4.3.8 Population and Housing

The Increased Height Alternative would construct the same amount of new office space as the Project under both the Maximum Housing and Maximum Office Scenarios. However, additional hotel and residential uses would be allowed. As shown below in Tables 5-14 and 5-15, of the two scenarios under the Increased Height Alternative, the Maximum Office Scenario would generate the greatest number of new residents and housing units inside and outside the city when factoring in both direct and indirect population and housing growth and would generate the greatest number of employees. The number of new residents and housing units under the Increased Height Alternative Maximum Office Scenario would be substantially similar to those generated by the Project because the only difference would be an additional 53 net new hotel rooms. Specifically, the Increased Height Alternative would generate 9,870 direct employees compared to the Project's 9,840 (a difference of 30 employees), 18,556 indirect residents compared to the Project's 18,457 (a difference of 99 residents), and 6,599 indirect households compared to the Project's 6,564 (a difference of 35 households). As discussed in Section 3.8, *Population and Housing*, the Project's increases in direct and indirect employment, population, and housing were found to not generate substantial unplanned growth in the city or region and impacts were determined to be less than significant. Given the substantially similar employment, population, and housing generation that would result from the Increased Height Alternative, growth from the Increased Height Alternative would also be within Plan Bay Area 2040's long-term growth projections for the city. Impacts regarding unplanned growth resulting from the Increased Height Alternative would likewise be ***less than significant***, albeit slightly greater than those of the Project.

Table 5-14. Direct and Indirect Employee, Resident, and Housing Generation—Increased Height Alternative Maximum Office Scenario

Land Use	Square Footage (sf)/Units/ Employees	Generation Rate	Projected Employees/ Residents/ Households
Employees			
Office (net new)	2,459,847 sf	250 sf/employee[a]	9,840 employees
Hotel (new new)	53 rooms	0.564 employee/room[a]	30 employees
Total New Employees	**—**	**—**	**9,870 employees**
Residents			
Onsite residents (direct)	0	2.89 persons/household[b]	0 residents
Employee-generated residents in San Bruno (indirect)	9,870 employees	13.6%[c,d,e] 1.88 persons/employee[f]	1,342 employees/ 2,524 residents
Employee-generated residents outside San Bruno (indirect)	9,870 employees	86.4%[c] 1.88 persons/employee[f]	8,528 employees/ 16,032 residents
Total New Residents	**—**	**—**	**18,556 residents**
Households			
Onsite households (direct)	0	—	0 households
Employee-generated households in San Bruno (indirect)	2,524 residents	2.89 persons/household[b]	873 households
Employee-generated households outside San Bruno (indirect)	16,032 residents	2.80 persons/household[g]	5,726 households
Total New Households	**—**	**—**	**6,599 households**

Land Use	Square Footage (sf)/Units/ Employees	Generation Rate	Projected Employees/ Residents/ Households

Note: Sums may not total because of rounding.

[a] Office employee rate based on YouTube Development – Phase I Submittal to City of San Bruno, Community Development Department. January 3, 2019. Hotel employee rate based on estimated rate for existing on-site hotel (i.e., approximately 75 employees for 133 rooms). Source: Economic & Planning Systems (EPS), 2019.

[b] California Department of Finance. 2019. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019*. Sacramento, CA. May. Available: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/. Accessed: June 6, 2019.

[c] The 3,204 San Bruno residents who work at place of residence/23,606 jobs in San Bruno = 13.6 percent of San Bruno residents who also work in the city. Assumption for outside San Bruno is the remainder.

[d] The 3,204 who work at place of residence. U.S. Census Bureau. 2017. *American Fact Finder, American Community Survey (ACS).* Sex of Workers by Place of Work—Place Level, San Bruno City, California, 2013–2017 ACS 5-Year Estimates, ID B08008. Available: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t. Accessed: March 13, 2019.

[e] The economy of San Bruno employs 23,606 people. DataUSA. 2019. *San Bruno, California.* Economy. Available: https://datausa.io/profile/geo/san-bruno-ca/#economy. Accessed: March 13, 2019.

[f] The 7,758,535 residents/4,136,195 jobs = 1.88. Refer to Table 3.8-4.

[g] California Department of Finance. 2019. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019.* Sacramento, CA. May. Based on 2019 Bay Area population not in group homes divided by occupied housing units.

Table 5-15. Direct and Indirect Employee, Resident, and Housing Generation—Increased Height Alternative Maximum Housing Scenario

Land Use	Square Footage (sf)/Units/ Employees	Generation Rate	Projected Employees/ Residents/ Households
Employees			
Office (net new)	1,942,896 sf	250 sf/employee[a]	7,772 employees
Hotel (new new)	53 rooms	0.564 employee/room[a]	30 employees
Total New Employees	**—**	**—**	**7,802 employees**
Residents			
Onsite residents (direct)	1,070 units	2.89 persons/ household[b]	3,092 residents
Employee-generated residents in San Bruno (indirect)	7,802 employees	13.6% [c,d,e] 1.88 persons/employee[f]	1,061 employees/ 1,994 residents
Employee-generated residents outside San Bruno (indirect)	7,802 employees	86.4%[c] 1.88 persons/employee[f]	6,740 employees/ 12,673 residents
Total New Residents	**—**	**—**	**14,667 residents (3,092 assumed absorbed by onsite housing)**

Land Use	Square Footage (sf)/Units/ Employees	Generation Rate	Projected Employees/ Residents/ Households
Households			
Onsite households (direct)	1,070 households	—	1,070 households
Employee-generated households in San Bruno (indirect)	1,994 residents	2.89 persons/household[b]	690 households
Employee-generated households outside San Bruno (indirect)	12,673 residents	2.80 persons/household[g]	4,526 households
Total New Households	—	—	**5,216 households (1,070 units of housing demand met onsite)**

Note: Sums may not total because of rounding.

[a] Office employee rate based on YouTube Development – Phase I Submittal to City of San Bruno, Community Development Department. January 3, 2019. Hotel employee rate based on estimated rate for existing on-site hotel (i.e., approximately 75 employees for 133 rooms). Source: Economic & Planning Systems (EPS), 2019.

[b] California Department of Finance. 2019. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019*. Sacramento, CA. May. Available: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/. Accessed: June 6, 2019.

[c] The 3,204 San Bruno residents who worked at place of residence/23,606 jobs in San Bruno = 13.6 percent of San Bruno residents who also work in the city. Assumption for outside San Bruno is the remainder.

[d] The 3,204 who work at place of residence. U.S. Census Bureau. 2017. *American Fact Finder, American Community Survey (ACS).* Sex of Workers by Place of Work—Place Level, San Bruno City, California, 2013–2017 ACS 5-Year Estimates, ID B08008. Available: https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t. Accessed: March 13, 2019.

[e] The economy of San Bruno employs 23,606 people. DataUSA. 2019. *San Bruno, California*. Economy. Available: https://datausa.io/profile/geo/san-bruno-ca/#economy. Accessed: March 13, 2019.

[f] The 7,758,535 residents/4,136,195 jobs = 1.88. Refer to Table 3.8-4.

[g] California Department of Finance. 2019. *E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019. Sacramento*, CA, May 2019. Based on 2019 Bay Area population not in group homes divided by occupied housing units.

5.4.3.9 Public Services and Recreation

Fire

The Increased Height Alternative would increase the fire department's service population by 6,640 persons, an increase of 1,098 persons over the Project's fire service population increase of 5,542 people, applying the same methodology for calculating fire service population used in Section 3.9, *Public Services and Recreation.*[12] This increase in the service population would be expected to increase the number of calls for fire protection and emergency services, putting strain on fire protection facilities and equipment. Therefore, on account of the increased service population, the impacts on fire protection services resulting from the Increased Height Alternative would be greater than those of the Project. However, similar to the Project, this impact would be reduced to less-than-significant levels with payment of the DIF. A portion of the DIF would

[12] As discussed in Section 3.9, *Public Services and Recreation,* the fire department considers a project's service population to include the total residential population and half of the total employment population.

be used for public safety, including fire capital facilities and infrastructure, including equipment (e.g., vehicles). As such, Increased Height Alternative impacts on fire protection would be ***less than significant*** and greater than those of the Project.

Police

The Increased Height Alternative could generate 3,092 new residents and 7,877 employees in the City of San Bruno, increasing the daytime service population to 59,695. This would result in an officer-per-resident ratio of 8 per 10,000 daytime residents. As discussed in Section 3.9, *Public Services and Recreation*, the San Bruno Police Department ratio goal is to meet the national average of 16.6 officers for every 10,000 daytime residents. The Project under the Maximum Housing Scenario would could result in an 8-per-10,000-officer per resident ratio and the Maximum Office Scenario could result in a 7.95-per-10,000-officer per resident ratio. Therefore, the impacts on police services resulting from the Increased Height Alternative would be similar to those of the Project under the Maximum Housing Scenario and slightly greater than those under the Maximum Office Scenario. However, this impact would be similarly reduced to less-than-significant levels with payment of the DIF. A portion of the DIF would be used for public safety, such as police capital facilities and infrastructure including equipment (e.g., vehicles). As such, Increased Height Alternative impacts on police protection services would be ***less than significant*** and similar to the Project's impact.

Schools

As shown below in Table 5-16, the Increased Height Alternative would generate 225 elementary students according to the SBPSD's student generation rates. As discussed in Section 3.9, *Public Services and Recreation*, the Project under the Maximum Housing Scenario would generate 120 elementary students according to SBPSD's generation rate. Therefore, the Increased Height Alternative would have a greater impact on area elementary schools than the Project. However, this impact would be similarly reduced to less-than-significant levels with the payment of developer fees, which are deemed to fully mitigate the impact of new development on school districts. As such, Increased Height Alternative impacts would be ***less than significant*** but greater than the Project's impact.

Table 5-16. Estimated Students Generated in San Bruno Park School District – Increased Height Alternative Maximum Housing Scenario

Block	New Market Rate Units	Student Generation Rate	Students
Single Family Detached	0	0.42	0
Single Family Attached	0	0.27	0
Multi-family Units	1,070	0.21	225
Total	**1,070**		**225**

Source (generation rates): DecisionInsite Team, San Bruno Park School District, Student Generation Rate Assumptions, August 10, 2018.

As shown below in Table 5-17, the Increased Height Alternative would generate 214 high school students according to the SMUHSD's student generation rates. As discussed in Section 3.9, *Public Services and Recreation*, the Project under the Maximum Housing Scenario would generate 115 high school students according to SMUHSD's generation rate. Therefore, the Increased Height Alternative would have a greater impact on area high schools than the Project. However, this impact would be similarly reduced to less-than-significant levels with the payment of developer fees, which are deemed to fully mitigate the impact of new development on school districts. As such, Increased Height Alternative impacts would be ***less than significant*** but greater than the Project's impact.

Table 5-17. Estimated Students Generated in San Mateo Union High School District – Increased Height Alternative Maximum Housing Scenario

Block	New Market Rate Units	Student Generation Rate	Students
Housing Units	1,070	0.2	214
Total	**1,070**		**214**

Source (generation rates): San Mateo Union High School District, October 2014, 2014 Developer Fee Justification Study for San Mateo Union High School District.

Libraries

The Increased Height Alternative could generate 3,092 new residents and 7,877 employees in the city, which could increase usage of library facilities. As discussed in Section 3.9, *Public Services and Recreation*, the San Bruno Public Library currently has a shortage in its book collection, seating, public computers, storytime space, group study areas, parking, and meeting room space. While the City has no established standard or service ratio for library space per capita, it is likely that the 3,092 new residents generated by the Increased Height Alternative would create more demand per capita on library services than the 1,656 residents generated by the Project under the Maximum Housing Scenario. Therefore, the Increased Height Alternative would have a greater impact on library services than the Project. However, this impact would be similarly reduced to less-than-significant levels with payment of the DIF. A portion of the DIF would be used to acquire and/or improve new library facilities. As such, Increased Height Alternative impacts on library services would be ***less than significant*** but greater than the Project's impact.

Parks

As discussed above, the Increased Height Alternative could generate 3,092 new residents in the city. Table 5-18 shows the acreage of park land that would be required for the additional residents added under the Increased Height Alternative in order to meet the General Plan's park land-to-residents goal.

Table 5-18. Calculated Acreage of New Park Land Required to Meet General Plan Goal

Park Land	Number of New Residents	Number of Acres Recommended per Resident[a]	Total New Park Land Acreage Recommended
Residential Alternative	3,092	0.0045	13.914

Source:
[a] City of San Bruno 2009

As discussed in Section 3.9, *Public Services and Recreation*, the city currently has 191 acres of park land available for a population of 44,859, resulting in a shortage of 11 acres of park land according to the City's General Plan park land goal of 4.5 acres per 1,000 residents. The Increased Height Alternative, which would require 14 acres under full buildout to satisfy the General Plan goal, would further increase the City's park land deficit resulting in increased demand on existing park land. Compared to the Project, which under the Maximum Housing Scenario would require 7.5 acres under full buildout, the Increased Height Alternative would have a greater impact on existing park land. However, this impact would be similarly reduced to less-than-significant levels with payment of the DIF. With the payment of the DIF, this alternative would not result in substantial adverse physical environmental impacts associated with the provision of new or physically altered park facilities in order to maintain acceptable service levels and impacts would be ***less than significant*** but greater than the Project's impact.

5.4.3.10 Transportation

As with the Project, the Maximum Office Scenario of the Increased Height Alternative would result in more impacts from a transportation perspective than the Maximum Housing Scenario due to the reduced land use diversity. This alternatives analysis therefore compares the Increased Height Alternative's Maximum Office Scenario with the Project's Maximum Office Scenario. As with the Project, the Increased Height Alternative Maximum Office Scenario would generate more people driving, walking, biking, or riding transit than under existing conditions. As shown in Table 5-19, the Increased Height Alternative Maximum Office Scenario would generate more daily vehicle trips and more peak-hour vehicle trips than the Project, The difference in trips is due to more hotel trips and slightly fewer office trips than the Project due to the internalization of some office trips. Hotel trips are generally shorter distances than office trips because people tend to stay as close as possible to their destination.

For these reasons, the daily VMT per Service Population associated with the Increased Height Alternative is virtually the same but slightly lower than the VMT per Service Population associated with the Project. For these reasons, the impact on VMT would be significant but slightly lower than the Project and **Mitigation Measure TRA-1**, which requires implementation and monitoring of a TDM program, would be required in both the Increased Height Alternative Existing Plus Project and cumulative conditions. As with the Project, impacts of the Increased Height Alternative would remain significant and unavoidable with mitigation under the Increased Height Alternative Existing Plus Project condition, but less than significant with mitigation under cumulative conditions. TDM programs under the Increased Height Alternative would likely need to be equally as ambitious as under the Project to mitigate the cumulative VMT impact. Therefore, overall, VMT impacts under the Increased Height Alternative would be reduced compared to the Project, but this alternative would not avoid the Project's ***significant and unavoidable*** Existing Plus Project VMT impact.

Table 5-19. Comparison of Transportation Outcomes under the Project and the Increased Height Alternative

Transportation Outcomes	Proposed Project – Maximum Office Scenario	Increased Height Alternative – Maximum Office Scenario
Trip Generation		
Daily	41,480	42,540
AM Peak	3,360	3,460
PM Peak	3,990	4,110
VMT		
Total Daily	338,248	338,898
Per Service Population	28.324	28.319

Under the Project, cumulative freeway queuing impacts (Impact C-TRA-9) would be mitigated to a less-than-significant level at the I-280 northbound off-ramp with implementation of **Mitigation Measure TRA-1**, which would reduce trip generation sufficiently to reduce queue lengths to fit within the available off-ramp storage capacity. The Increased Height Alternative would increase in the number of PM peak-hour inbound trips as compared to the Project by approximately 40 vehicles. PM peak-hour inbound trips are the cause of the cumulative freeway queuing impact at the I-280 northbound off-ramp. Given the similar land use mix between the Project and this alternative, and the modest increase in PM peak-hour inbound trips, it is anticipated that the TDM measures required under **Mitigation Measure TRA-1** would sufficiently reduce trip generation so that queue lengths fit within the available off-ramp storage capacity, resulting in an impact that is ***less than significant with mitigation*** and similar to that of the Project.

Elements of the project design, such as the streetscape elements, would remain the same as under the Project (e.g., wider sidewalks, improved crossings for people walking, and dedicated bicycle infrastructure). Vehicle and bicycle parking would be provided in a manner that meets applicable Municipal Code requirements.

Overall, the Increased Height Alternative would slightly increase travel to and from the Project Site but would have no project-specific or cumulative impact on construction, transit, walking/accessibility, bicycle travel, or emergency vehicle access. All of these impacts were found to be ***less than significant*** in the case of the Project, either individually or cumulatively, and the same would hold true for this alternative.

5.4.3.11 Utilities and Service Systems

As described above under Section 5.4.2.11, *Utilities and Service Systems*, and Section 3.11, *Utilities and Service Systems*, the Maximum Housing Scenario was identified as having the greatest potential for impacts associated with water use and wastewater generation, and the Maximum Office Scenario was identified as having the greatest potential for impacts associated with solid waste generation. Therefore, in this alternatives analysis, the Increased Height Alternative Maximum Housing Scenario is analyzed in detail in this section for potential impacts associated with water use and wastewater generation, and the Maximum Office Scenario is analyzed in detail in this section for potential impacts associated with solid waste generation. The stormwater analysis for the Increased Height Alternative accounts for either the Maximum Housing or Maximum Office Scenario, both of which would provide more open space than the Project given the taller structures and reduced footprints.

Water and Wastewater Facilities

Table 5-20, below, identifies anticipated water demands and subsequent wastewater generation for the Increased Height Alternative (Maximum Housing Scenario) compared to the Project (Maximum Housing Scenario). The Maximum Housing Scenario is analyzed in Section 3.11, *Utilities and Service Systems*, as the “worst-case scenario” for water use and wastewater generation. Water use and wastewater generation are based on water use rates identified in the City’s 2015 UWMP (West Yost Associates 2016).

Table 5-20. Anticipated Water Demand and Wastewater Generation for the Increased Height Alternative Project (Maximum Housing Scenario) Compared to the Project (Maximum Housing Scenario)

Proposed Land Use	Unit Demand Factor[b]	Existing	Existing Water Demand (MGD)	Full Quantity at Buildout (including Existing to remain)	Future Water Demand (existing + buildout) (MGD)	Net Increase in Water Demand (MGD)
Project (Maximum Housing Scenario)						
Office	0.13 gpd/sf	1,557,847 sf	0.20	3,500,743 sf	0.46	0.26
Retail	0.19 gpd/sf	121,846 sf	0.02	121,846 sf	0.02	0
Hotel	120 gpd/room	133 rooms	0.02	133 rooms	0.02	0
Residential	120 gpd/du	0 du	0.00	573 du	0.07	0.07
Total					**0.57 MGD**	**0.33 MGD**
Increased Height Alternative (Maximum Housing Scenario)						
Office	0.13 gpd/sf	1,557,847 sf	0.20	3,500,743 sf	0.46	0.26
Retail	0.19 gpd/sf	121,846 sf	0.02	121,846 sf	0.02	0.00
Hotel	120 gpd/room	133 rooms	0.02	186 rooms	0.02	0.01
Residential	120 gpd/du	0 du	0.00	1,070 du	0.13	0.13
Total					**0.63 MGD**	**0.40 MGD**

Source: West Yost Associates 2019

Notes:

[a] Landscaping is not considered a significant source of water usage under this analysis, because landscaping plans would include water-saving strategies such as bioretention planters, turf, and drought-tolerant vegetation.

[b] Unit Demand Factors account for irrigation demand (West Yost Associates 2016).

du = dwelling unit

gpd = gallons per day

MGD = millions of gallons per day

sf = square feet

As displayed in Table 5-20, the Increased Height Alternative would result in 0.07 MGD more of water demand compared to the Project (0.40 MGD – 0.33 MGD = 0.07 MGD), and subsequently 0.07 MGD more of generated wastewater. The Water Supply Assessment (WSA) in Appendix 3.11-1a and the WSA Addendum in Appendix 3.11-1b of this EIR evaluated the impacts of the Increased Height Alternative and determined that the Increased Height Alternative (Maximum Housing Scenario) would not require new or expanded water supply entitlements or resources. Similarly, the Water System Hydraulic Evaluation in Appendix 3.11-2 of this ~~Draft~~ EIR evaluated the Increased Height Alternative and determined that the Increased Height Alternative (Maximum Housing Scenario) could be adequately served by proposed water infrastructure. Therefore, impacts on water supply and infrastructure would be ***less than significant*** but greater than the less-than-significant impacts of the Project due to the slight increase in overall water demand.

With regard to wastewater treatment demand and infrastructure capacity, according to the City of South San Francisco's WQCP Facility Plan (Facility Plan Update) of April of 2011, dry-weather flows to the WQCP averaged approximately 8.66 MGD between the period of 2004 through 2009, and current dry-weather flows are estimated at approximately 9.0 MGD.[13] The dry-weather flow capacity of the WQCP (at a dry-weather capacity of 13 MGD) therefore has a remaining treatment and disposal capacity of approximately 4 MGD. The additional 0.07 MGD of wastewater that would be generated by this alternative, compared to the Project, could be accommodated by the South San Francisco/San Bruno WQCP, which has a remaining capacity of 4 MGD. The SSIS in Appendix 3.11-3 of this ~~Draft~~ EIR evaluates the sufficiency of the local wastewater conveyance system to serve the Increased Height Alternative (Maximum Housing Scenario) and determined that the proposed wastewater system would have adequate capacity to serve the wastewater generated by the Increased Height Alternative provided that **Mitigation Measure UT-1** is implemented to mitigate potential impacts on the pipe system along San Bruno Avenue West between Traeger Avenue and Elm Avenue. Therefore, impacts on wastewater facilities under the Increased Height Alternative would be ***less than significant with mitigation*** and greater than the Project's impact, which would also be less than significant with mitigation.

Stormwater Facilities

As described in Section 5.4.3.5, *Hydrology and Water Quality*, compared to the Project, buildings under the Increased Height Alternative would be taller but with smaller footprints, allowing more of the Project Site to be in open space. Therefore, the Increased Height Alternative could provide more pervious area than the Project, which could reduce runoff and allow for more stormwater infiltration than the Project. However, because much of the Project Site would overlie underground parking structures, the extent to which additional pervious area could be provided would likely be minimal. Because existing capacity deficiencies are present, a significant surface water drainage impact would still occur under the Increased Height Alternative. Similar to the Project, implementation of **Mitigation Measures HWQ-2** would be required to address existing storm drain capacity deficiencies and require project-level drainage studies to be conducted to identify site-specific drainage facilities to maintain or reduce drainage flows to the existing system, and implement necessary drainage improvements during construction. Therefore, stormwater drainage impacts associated with the Increased Height Alternative would be ***less than significant with mitigation*** and similar to the impacts of the Project.

[13] City of South San Francisco, accessed at: http://www.ssf.net/departments/public-works/water-quality-controlplant/treatment-process

Solid Waste Generation

As described in Section 3.11, *Utilities and Service Systems*, the Maximum Office Scenario would result in the greatest amount of operational Project-generated solid waste, approximately 52.6 daily tons, or 19,215.1 annual tons, which would be generated by the 9,840 net new employees on the Project Site. As described above in Section 5.4.3.8, *Population and Housing*, the Increased Height Alternative Maximum Office Scenario would generate approximately 30 more employees than the Project. Therefore, anticipated solid waste generation under the Increased Height Alternative Maximum Office Scenario would be substantially similar to those anticipated under the Project, and impacts would be ***less than significant***.

5.5 Comparison of Impacts

Table 5-21 compares the significant impacts of the Project, No Project Alternative, Residential Alternative, and Increased Height Alternative. First, for each impact studied, it identifies the level of impact for the Project and each alternative (e.g., no impact, less-than-significant impact, less-than-significant impact with mitigation, or significant and unavoidable impact. Second, for each alternative and each impact, it indicates whether the resulting degree of impact would be similar to, less than, or greater than the Project. In some cases, although both the Project and the alternative would result in the same level of impact, the degree of that impact might differ.

Table 5-21. Comparison of Impacts under Proposed Project and Alternatives

Impact	Project	No Project Alternative	Residential Alternative	Increased Height Alternative
Visual Quality				
Conflict with plans/policies	LS	NI (less)	LS (similar)	LS (similar)
Light and glare	LS	NI (less)	LS (similar)	LS (greater)
Air Quality				
Air Quality Plan Consistency	LS	NI (less)	LS (similar)	LS (similar)
Criteria Air Pollutant Emissions				
Construction	SU	NI (less)	SU (greater)	SU (greater)
Operation	SU	NI (less)	SU (similar)	SU (similar)
Health Risks				
Criteria Air Pollutants	SU	NI (less)	SU (greater)	SU (greater)
Toxic Air Contaminants	SU	NI (less)	SU (greater)	SU (greater)
Odors	LS	NI (less)	LS (similar)	LS (similar)
Energy				
Construction	LSM	NI (less)	LSM (greater)	LSM (greater)
Operation	LS	NI (less)	LS (similar)	LSM (similar)
Greenhouse Gases and Energy				
Construction	LSM	NI (less)	LSM (greater)	LSM (greater)
Operation	LSM	NI (less)	LSM (similar)	LSM (similar)
Hydrology and Water Quality	LSM	NI (less)	LSM (greater)	LSM (greater)
Land Use and Planning	LSM	NI (less)	LSM (similar)	LSM (similar)
Noise	LSM	NI (less)	LSM (similar)	LSM (similar)
Population and Housing	LS	NI (less)	LS (less)	LS (greater)

Impact	Project	No Project Alternative	Residential Alternative	Increased Height Alternative
Public Services and Recreation				
Fire Protection Services	LS	NI (less)	LS (greater)	LS (greater)
Police Protection Services	LS	NI (less)	LS (similar)	LS (similar)
Schools	LS	NI (less)	LS (greater)	LS (greater)
Libraries	LS	NI (less)	LS (greater)	LS (greater)
Parks	LS	NI (less)	LS (greater)	LS (greater)
Transportation				
Vehicle Miles Travel~~l~~ed	SU	NI (less)	LSM (less)	SU (less)
Impacts Related to Design Features	LS	NI (less)	LS (similar)	LS (similar)
Freeway Queueing	LSM	NI (less)	SU (greater)	LSM (similar)
Utilities and Service Systems				
Water/Wastewater	LSM	NI (less)	LSM (greater)	LSM (greater)
Stormwater	LSM	NI (less)	LSM (greater)	LSM (similar)
Solid Waste	LS	NI (less)	LS (less)	LS (similar)

Level of impact (comparison to Project)
NI = no impact
LS = less than significant
LSM = less than significant with mitigation
SU = significant and unavoidable

5.6 Environmentally Superior Alternative

Section 21002 of the State CEQA Guidelines requires lead agencies to adopt feasible mitigation measures or feasible environmentally superior alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible. CEQA also requires that an environmentally superior alternative be identified among the alternatives analyzed. In general, the environmentally superior alternative is the project that avoids or substantially lessens some or all of the significant and unavoidable impacts of the proposed project (CEQA Guidelines Section 15126.6).

Comparing the extent to which the alternatives would reduce or avoid the significant impacts of the Project, the No Project Alternative would be the environmentally superior alternative because it would avoid all of the Project's significant impacts, which include criteria air pollutant emissions, health risks from TACs and criteria air pollutants (Project and cumulative), and Project-generated VMT. While the No Project Alternative would ensure that the neighborhood commercial uses at the Bayhill Shopping Center are retained, it would not meet any of the other Project objectives. In accordance with CEQA Guidelines Section 15126.6, because the No Project Alternative is the environmentally superior alternative, this EIR must also specify which of the other alternatives would be environmentally superior.

The Increased Height Alternative would reduce but not avoid the Project's significant VMT impact. The Increased Height Alternative would neither reduce nor avoid the Project's significant criteria air pollutant and health risk impacts; in fact, this alternative would increase the severity of those impacts. Therefore, the Increased Height Alternative is not the environmentally superior alternative.

The Residential Alternative would avoid the Project's significant VMT impact. The Residential Alternative would neither reduce nor avoid the Project's significant criteria air pollutant and health risk impacts; in fact, this alternative would increase the severity of those impacts. This alternative would also result in a new significant and unavoidable cumulative impact related to freeway queueing. Therefore, the Residential Alternative would represent a trade-off in environmental impacts compared to the Project. Overall, because it would avoid the Project's significant VMT impact, the Residential Alternative is the environmentally superior alternative.

Chapter 6
List of Preparers

The CEQA Lead Agency is the City of San Bruno. ICF prepared this ~~Draft~~ EIR on the Lead Agency's behalf. Additional technical assistance was provided by the consultants and individuals listed below.

Lead Agency – City of San Bruno

Community Development Department
567 El Camino Real | San Bruno, CA 94066

- Darcy Smith, AICP, Community & Economic Development Director
- Hae Won Ritchie, P.E., City Engineer / Deputy Director of Public Works
- Jimmy Tan, Public Services Director
- Joanna Kwok, P.E., Associate Civil Engineer
- Matthew Neuebaumer, Associate Planner
- Michael Kato, P.E., Associate Civil Engineer

EIR Consultant - ICF

201 Mission Street, Suite 1500 | San Francisco, CA 94105

Project Management

- Heidi Mekkelson, Project Manager
- Patrick Maley, Deputy Project Manager/Project Coordinator
- Rich Walter, Project Director

Section Authors and Technical Specialists

- Aileen Cole, Utilities and Service Systems
- Alan Barnard, Graphics
- Andrea Dumovich, Cultural Resources
- Bill Parker, GIS
- Dave Buehler, Noise
- Devan Atteberry, Energy
- Diana Roberts, Population and Housing, Public Services and Recreation
- Elizabeth Foley, Noise
- Jason Thoene, GIS

- Katrina Sukola, Hydrology and Water Quality
- Laura Yoon, Air Quality, Greenhouse Gases
- Lily Arias, Cultural Resources
- Patrick Maley, Population and Housing, Public Services and Recreation
- Sandy Lin, Air Quality, Greenhouse Gases
- Tait Elder, Cultural Resources
- Tim Messick, Graphics

Specific Plan Consultant - Dyett & Bhatia

1330 Broadway, Suite 604 | Oakland, CA 94612

- Rajeev Bhatia, AICP, Principal
- Gabriella Folino, Senior Urban Designer
- Jessica Robbins, Planner
- Christina Paul, Associate Principal
- Julia Malmo-Laycock, Planner

Transportation Consultant - Fehr & Peers

332 Pine Street, 4th Floor | San Francisco, CA 94104

- Bob Grandy, Principal
- Sarah Nadiranto Chan, PE TE, Senior Transportation Engineer
- Taylor McAdam, Transportation Planner

Stormwater Consultant - Kimley-Horn

1300 Clay Street, Suite 325 | Oakland, CA 94612

- Felicia C. Dean, P.E. LEED AP, Senior Project Manager

Groundwater Consultant - EKI Environment & Water, Inc.

577 Airport Boulevard, Suite 500 | Burlingame, California 94010

- Anona Dutton, PG, CHg, Vice President
- Kristyn Lindhart, Hydrogeologist

Water Consultant - West Yost Associates

6800 Koll Center Parkway, Suite 150 | Pleasanton, CA 94566

- Amy W. Kwong, P.E., Project Engineer
- Jim Connell, Principal Engineer

Wastewater Consultant – Woodard & Curran

2175 North California Blvd., Suite 315 | Walnut Creek, CA 94596

- Gisa Ju, P.E., Senior Technical Practice Leader

Legal Counsel – Burke, Williams & Sorensen, LLP

1901 Harrison Street, Suite 900 | Oakland, CA 94612-3501

- Edward L. Shaffer, Partner

Project Management Consultant - Management Partners

2107 North First Street, Suite 470 | San Jose, CA 95131

- Dan Marks, Special Advisor
- Elaine Costello, FAICP, Special Advisor