

# **DRAFT ENVIRONMENTAL IMPACT REPORT**

## **SOUTHLINE SPECIFIC PLAN**

**CITY OF SOUTH SAN FRANCISCO, CALIFORNIA  
STATE CLEARINGHOUSE No. 2020050452**

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**State Clearinghouse No. 2020050452**

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## Acronyms and Abbreviations

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µg/m <sup>3</sup>	micrograms per cubic meter
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
AIA	Airport Influence Area
ALUC	San Mateo County Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
ALUCs	Airport Land Use Commissions
AMS	alternate mode share
amsl	above mean sea level
APNs	Assessor's Parcel Numbers
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BC	Business Commercial
BCDC	San Francisco Bay Conservation and Development Commission
bgs	below ground surface
BMPs	best management practices
BTU	British thermal unit
C/CAG	City/County Association of Governments
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFÉ standards	Corporate Average Fuel Economy Standards
cal BP	calibrated years before present
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAMUTCD	California Manual on Uniform Traffic Control Devices
CAP	Climate Action Plan
CARB	California Air Resources Board
CCAs	Community Choice Aggregators
CCR	California Code of Regulations
CCR	Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission

CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH <sub>4</sub>	methane
CMA	Congestion Management Agency
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPPA	California Native Plant Protection Act of 1977
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
dB(C)	C-weighted decibel
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
ESPs	energy service providers
FAA	Federal Aviation Administration
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
GSAs	Groundwater Sustainability Agencies
GSPD	Gateway Specific Plan District
GSPs	Groundwater Sustainability Plans
GWP	global warming potential
HBW	home-based work
HFCs	hydroflourocarbons
HI	hazard index
HRA	health risk assessment

HVAC	heating, ventilation, and air conditioning
Hz	hertz
IOUs	investor-owned utilities
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
IRP	2018 Integrated Resource Plan
ITE	Institute of Transportation Engineers
kBTU	thousand BTU
kW	kilowatt
kWh	kilowatt hour
L <sub>dn</sub>	day-night level
LEED	Leadership in Energy and Environmental Design
L <sub>eq</sub>	equivalent sound level
LID	Low-Impact Development
L <sub>max</sub>	maximum sound level
L <sub>min</sub>	minimum sound level
LOS	Level of Service
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
mg/m <sup>3</sup>	milligrams per cubic meter
MPOs	Metropolitan Planning Organizations
MRP	Municipal Regional Permit
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCP	National Contingency Plan
NDCs	Nationally Determined Contributions
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
NO <sub>2</sub>	nitrogen dioxide
NOC	Notice of Completion
NOD	Notice of Determination
non-VHFHSZ	Non-Very High Fire Hazard Severity Zone
NOP	Notice of Preparation
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NWPR	Navigable Waters Protection Rule
O <sub>3</sub>	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research

OSHA	Occupational Safety and Health Administration
PCBs	polychlorinated biphenyls
PCE	Peninsula Clean Energy
PCWQCA	Porter-Cologne Water Quality Control Act
PPV	peak particle velocity
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
PM	particulate matter
ppb	parts per billion
ppm	parts per million
R&D	research and development
RECs	Recognized Environmental Conditions
RHNA	Regional Housing Needs Allocation
RMS	root mean square
ROGs	reactive organic gases
RPS	Renewables Portfolio Standard
RTPs	Regional Transportation Plans
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
SamTrans	San Mateo County Transit District
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF <sub>6</sub>	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SFO	San Francisco International Airport
SFPUC	San Francisco Public Utilities Commission
SGMA	Sustainable Groundwater Management Act
SLCP	short-lived climate pollutant
SMCEHD	San Mateo County Environmental Health Department
SMCWPPP	San Mateo Countywide Water Pollution Prevention Program
SO <sub>2</sub>	sulfur dioxide
SRAs	State Responsibility Areas
SSFFD	South San Francisco Fire Department
SSFPD	South San Francisco Police Department
SSFUSD	South San Francisco Unified School District
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
TAZ	Transportation Analysis Zone

TDM	Transportation Demand Management
TPAs	Transit Priority Areas
U.S. 101	U.S. Route 101
USACE	U.S. Army Corps of Engineers
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VHFHSZs	Very High Fire Hazard Severity Zones
VMT	vehicle miles traveled
WDRs	Waste Discharge Requirements
WEAP	Worker Environmental Awareness Program
WETA	Water Emergency Transportation Authority
WSA	Water Supply Assessment

This chapter summarizes the proposed project, which comprises buildout allowed under the proposed Southline Specific Plan (Specific Plan) and associated off-site improvements; outlines the purpose of this environmental impact report (EIR); summarizes the environmental review process; and describes the organization of the EIR.

## 1.1 Project Summary

The project applicant, Lane Partners, proposes to redevelop an approximately 26.5-acre, irregularly shaped site within the City of South San Francisco's (City's) Lindenville Planning Sub-area (Specific Plan area) with a transit-oriented research-and-development (R&D)/office campus. The Specific Plan area is at the intersection of South Maple Avenue and Tanforan Avenue, adjacent to the City of San Bruno. The Specific Plan area is bounded by commercial, industrial, and warehouse facilities to the north and east, single-family residences to the south, and the San Bruno Bay Area Rapid Transit (BART) station, The Shops at Tanforan, and San Bruno Towne Center to the west. In addition, the Centennial Way Trail, a Class I multi-use path, runs generally parallel and west of the Specific Plan area. The approximately 26.5-acre Specific Plan area encompasses seven parcels (Assessor's Parcel Numbers 014-250-090, 014-250-080, 014-250-050, 014-241-030, 014-241-040, 014-232-030, and 014-232-050) and currently consists of a variety of office, industrial, warehouse, and storage facilities that were largely constructed in the 1940s and 1950s. The existing structures total nearly 344,000 square feet and include approximately 380 surface parking spaces.

The proposed project would demolish all existing on-site uses within the Specific Plan area and construct a transit-oriented office/R&D campus with a maximum anticipated building area of approximately 2,800,000 square feet. New development would include commercial office/R&D buildings, a four-story supportive amenities building (Building 2) totaling approximately 88,200 square feet, approximately 3,064 underground parking spaces at various locations throughout the Specific Plan area, a nine-story parking structure with approximately 2,705 spaces (Parking Structure C), a new east-west connection road (Southline Avenue; provisionally named for the purpose of the Specific Plan and California Environmental Quality Act [CEQA] review), supportive utilities and related infrastructure, and up to 341,800 square feet (7.8 acres), of open space. Commercial building heights would range from four to seven stories, subject to maximum building height limits in accordance with Federal Aviation Administration (FAA) and Airport Land Use Compatibility Plan (ALUCP) requirements.

Off-site improvements would be constructed to support development within the Specific Plan area. These include the following improvements within the City of South San Francisco: reconfiguration of the South Linden Avenue and Dollar Avenue intersection; reconfiguration of the existing at-grade rail crossing at South Linden Avenue; roadway widening of and street front improvements on South Maple Avenue; and signalization of intersections at the main Southline campus entry point at Southline Avenue, mid-block at Southline Avenue, and at Southline Avenue and Dollar/Linden avenues. The off-site improvements also include the following improvements

located outside of the City and within the jurisdiction of the City of San Bruno and/or BART, which are subject to separate application, review, and approval requirements: a new signalized intersection, reconfiguring Huntington Avenue connecting it to the new Southline Avenue, and providing for improved adjacent bicycle and pedestrian facilities; reconfiguration of Tanforan Avenue to create a cul-de-sac limiting through traffic; and a new dedicated, signalized northbound left turn lane on Huntington Avenue providing a new entrance into the transit center for SamTrans buses. The proposed project would also remove, install, or relocate certain facilities including: dry and wet utilities (aboveground and underground), sidewalks, curbs, and streetscape improvements located both within the cities of South San Francisco and San Bruno, and within BART jurisdiction.

Development associated with the proposed project would be implemented under the proposed Specific Plan, which would establish new land use development standards and design guidelines for the future development within the Specific Plan area. The proposed project evaluated in this EIR consists of (1) buildout under the Specific Plan and (2) the proposed off-site transportation and circulation improvements that would support development within the Specific Plan area – collectively referred to as the proposed project. This EIR provides a program-level analysis of the potential effects on the environment that could occur from implementation of the proposed project. In addition, this EIR provides a project-level analysis of the initial development phase of the Specific Plan (Phase 1), which is a component of the proposed project. Phase 1 would include construction of the new Southline Avenue east-west connection road and the following development, generally located south of the new road: two new office buildings (Buildings 1 and 7), with a total building area of up to approximately 612,715 square feet; the four-story, approximately 88,200-square foot amenities building (Building 2); landscaping and open space amenities; and approximately up to 2,664 parking spaces in a combination of below-grade parking and the eastern portion of the nine-story parking structure located north of the new Southline Avenue (Parking Structure C). The total usable parking proposed for Phase 1 is up to 1,379 parking spaces (approximately 2.2 parking spaces per 1,000 SF), a significant portion of which would be utilized for on-site construction parking and use by future phases. Phase 1 also includes all of the proposed on-site and off-site infrastructure, roadway, and pedestrian improvements within the off-site improvement areas except for the roadway widening, streetfront improvements and sewer main upgrades in Maple Avenue.

## 1.2 Purpose and Intended Uses of the EIR

This EIR has been prepared by the Planning Division of the City of South San Francisco, the Lead Agency for the proposed project, in compliance with the provisions of CEQA and the CEQA Guidelines (California Public Resources Code Section 21000 et seq., and California Code of Regulations Title 14, Section 15000 et seq.; CEQA Guidelines). The lead agency is the public agency that has the principal responsibility for carrying out or approving a project.

As stated in CEQA Guidelines Section 15121(a), an EIR is an informational document intended to inform public agency decision-makers and the public of the significant environmental effects of a project, identifying possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The degree of specificity required in an EIR should “correspond to the degree of specificity involved in the underlying activity which is described in the EIR” (CEQA Guidelines Section 15146). This EIR assesses potentially significant impacts as defined in CEQA

Guidelines Section 15382 as substantial, or potentially substantial, adverse changes 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 significance.

The purpose of this EIR is to assess and disclose the potential environmental impacts associated with the adoption and implementation of the proposed project, as described above, and determine corresponding mitigation measures as necessary. This EIR is intended to provide programmatic CEQA clearance for adoption and implementation of the Specific Plan; the City will rely on the EIR for the processing of related concurrent or subsequent approvals, including Precise Plans, that are consistent with the Specific Plan, and approvals required for the off-site improvements located within the City's jurisdiction intended to implement the Specific Plan, subject to the requirements of CEQA. The purpose of this EIR is also to provide project-level CEQA clearance for implementation of the Phase 1 development, including the related off-site improvements, as further described below. This EIR is also intended to provide CEQA clearance for review and/or approvals or actions by other agencies or entities, including approvals by the City of San Bruno for off-site improvements within its jurisdiction and approvals by BART for improvements located within its jurisdiction.

Pursuant to CEQA Guidelines Sections 15161 and 15168, this a combined program-level and project-level EIR. This EIR serves as a single CEQA document that will provide environmental clearance for the adoption of the Specific Plan, as described above, and approval of Phase 1, including off-site improvements included in Phase 1. As such, this EIR will provide the environmental review needed under CEQA to support full entitlement of Phase 1, while also serving as a program-level document that can be used for streamlined environmental review for future Precise Plans within the Specific Plan area.

Before any discretionary project approvals may be granted for the proposed project, the South San Francisco City Council must certify that the EIR was completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the final EIR, and that the EIR reflects the City's independent judgment and analysis, and make any other findings required by law. EIR adequacy is defined in CEQA Guidelines Section 15151, which states "[a]n EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences."

CEQA requires that public agencies approve projects only after all feasible means available have been employed to substantially lessen the significant environmental effects of such projects. City decision-makers will use the certified EIR, along with other information and public processes, to determine whether to approve, modify, or disapprove the proposed project, and to require any feasible mitigation measures as conditions of project approval.

## 1.3 Environmental Review Process

The environmental review process for the proposed project includes a number of steps: publication and circulation of a Notice of Preparation (NOP) for public comment, publication of a draft EIR for public review and comment, preparation and publication of responses to public and agency comments on the draft EIR, and certification of the final EIR by the Lead Agency (City of South San Francisco). These steps are described below.

### 1.3.1 Notice of Preparation

The Planning Division issued an NOP of an EIR for the proposed project on May 22, 2020, in compliance with Title 14, Sections 15082(a), 15103, and 15375 of the California Code of Regulations. The NOP review period commenced on May 22, 2020 and concluded on July 6, 2020. A scoping meeting was held on June 11, 2020. One commenter submitted questions at the meeting. The Planning Division received nine comment letters from interested parties during the public review and comment period and one letter from the State Clearinghouse. The Planning Division has considered the comments made by the public in preparation of the EIR for the proposed project. The NOP, and comments received on the NOP, are provided in **Appendix 1** of this EIR.

Comments on the NOP raised several issues listed under respective categories, as summarized below:

#### Aesthetics

- Project contributions of shadows on surrounding areas.

#### Air Quality and Greenhouse Gas Emissions

- Project design considerations to reduce greenhouse gas emissions.
- Recommended air quality thresholds.
- Identification of sensitive receptors.

#### Biological Resources

- Description of vegetation and trees to be removed and introduction of light and glare.
- Mitigation measures for nesting birds and roosting bats.

#### Cultural and Tribal Cultural Resources

- Compliance with Assembly Bill 52 and Senate Bill 18.

#### Hazards and Hazardous Materials

- Plans for dust control or hazardous materials, if any are used.

#### Hydrology and Water Quality

- Project-related discharge rates and proposed drainage features to address the project site's location within the Colma Creek Flood Control Zone.
- Compliance of stormwater treatment facilities with National Pollutant Discharge Elimination System (NPDES) requirements.
- Ensuring proper water pollution control best management practice (BMP) devices are installed and maintained.

#### Land Use and Planning

- Consistency with BART's Station Access Policy.

## Noise and Vibration

- Plans to limit construction noise.
- Noise and vibration impacts to nearby residential homes and businesses.
- Impacts quantified using short- and long-term measurements.

## Population and Housing

- Project's jobs/housing balance analysis.

## Project Description

- Project-related approvals, agreements, and permits.

## Transportation and Circulation

- Project's parking and vehicle trip analysis.
- Travel demand, vehicle trip reduction, multimodal, bicycle, pedestrian planning, and construction-related impact methodology.
- Transportation impact fees.
- Impacts on vertical circulation; queuing at BART ticket machines, fare gates, elevators, and escalators; and train crowding.
- Increase in BART ridership to San Bruno Station.
- Impacts on roadway and trail users, particularly at major roadway intersections and the ends of BART stations.
- Impacts of additional parking provided by project on local circulation.

## Utilities and Service Systems

- Confirmation of project-related impacts on Pacific Gas and Electric infrastructure on-site or within the nearby vicinity.
- Project's contribution to City of San Bruno's utilities and service systems.

### 1.3.2 Draft Environmental Impact Report

This draft EIR has been prepared on behalf of the City of South San Francisco, the lead agency, in accordance with CEQA. It provides an analysis of the physical environmental impacts of construction and operation of the proposed project as well as the project's cumulatively considerable contribution to environmental impacts from foreseeable cumulative development in the project vicinity and the City as a whole. It considers all environmental topic areas in Appendix G of the CEQA Guidelines and takes into consideration NOP comments.

Hard copies of the draft EIR, all documents referenced in this draft EIR, and the distribution list for the draft EIR are available at the Planning Division, 315 Maple Avenue, South San Francisco, CA 94080, at the Main Library at 804 W. Orange Avenue, the Grand Avenue Library at 306 Walnut Avenue, and the City Clerk's Office at 400 Grand Avenue.

The draft EIR is available for viewing or downloading at <http://www.ssf.net/ceqadocuments> under Southline Specific Plan.

## How to Comment on the Draft Environmental Impact Report

The City, on September 28, 2021, filed a Notice of Completion (NOC) with the State Clearinghouse, indicating that this draft EIR has been completed and is available for review and comment. This draft EIR will be available for review by the public and interested parties, agencies, and organizations for a review period of at least 45 days, as required by California law. Reviewers should focus on the document's adequacy in identifying and analyzing the proposed project's significant effects on the environment and ways in which the significant effects of the proposed project might be avoided or mitigated (California Code of Regulations Section 15024[a]).

The 45-day review period for the draft EIR is from September 28, 2021 to November 12, 2021. Comments should be submitted in writing during this review period to:

**Via email:** [adena.friedman@ssf.net](mailto:adena.friedman@ssf.net)

For comments sent via email, please include "EIR Comments: Southline Specific Plan Project" in the subject line and the name and physical address of the commenter in the body of the email.

**Via mail:**

Adena Friedman, Principal Planner  
Department of Economic and Community Development  
City of South San Francisco  
315 Maple Avenue  
South San Francisco, California 94080  
Comments may also be sent via email to: [adena.friedman@ssf.net](mailto:adena.friedman@ssf.net)

All comments on environmental issues received during the public comment period will be considered and addressed in the final EIR.

There will be a public hearing before the Planning Commission during the 45-day public review and comment period for this draft EIR to solicit oral comments on the adequacy and accuracy of information presented in this draft EIR. The public hearing on this draft EIR has been scheduled before the Planning Commission for November 4, 2021.

### 1.3.3 Final Environmental Impact Report

Following the close of the draft EIR public review and comment period, the City will prepare responses to comments, which will contain a summary of comments submitted during the public hearing and a copy of all written comments received on the draft EIR as well as the City's responses to significant environmental points raised in the review and consultation process and any necessary changes to the text. Responses to comments will be prepared and published in a final EIR. The final EIR will be available to all commenting agencies at least 10 days prior to the certification hearing, in accordance with CEQA requirements. The South San Francisco City Council, as the decision-making body for this project, following review and recommendation by the Planning Commission, will review the final EIR documents and will determine whether or not the final EIR provides a full and adequate appraisal of the project and its alternatives.

The City Council will review the final EIR for adequacy and certify that the EIR has been completed in compliance with CEQA and that it reflects the City's independent judgment pursuant to the requirements of CEQA Guidelines Section 15090. The City will consider certification of the final EIR and then consider the approvals required for implementation of the project separately for approval or denial. Findings on the feasibility of avoiding or reducing the project's significant environmental effects will be made and, if necessary, a Statement of Overriding Considerations will be prepared, balancing the benefits achieved by the proposed project against unavoidable environmental impacts, should the City choose to approve the project with remaining significant impacts that cannot be avoided.

A Notice of Determination (NOD) will be prepared and filed with the State Clearinghouse if the City approves the proposed project.<sup>1</sup> The NOD will include a description of the project, the date of approval, and an indication of whether Findings and Statements of Overriding Considerations were prepared. The NOD will also provide the address where the EIR and record of project approval are available for review.

## 1.4 Report Organization

This EIR is organized into the following chapters.

- Chapter 1, *Introduction*, summarizes the purpose and organization of the EIR and the environmental review process.
- Chapter 2, *Executive Summary*, summarizes the proposed project and environmental consequences that would result from the implementation of the project (including significant and unavoidable impacts that cannot be mitigated to a level of less than significant, impacts reduced to a level of less than significant through mitigation, and impacts determined not to be significant), the alternatives to the proposed project that were analyzed, and a summary table of the project impacts and mitigation measures.
- Chapter 3, *Project Description*, describes the existing setting, the project applicant objectives, the proposed project, and required approvals and actions, including those of the agencies involved in the actions.
- Chapter 4, *Environmental Setting, Impacts, and Mitigation*, begins with Section 4.1, *Approach to Environmental Analysis*, which presents the methodology for environmental analysis, including a list of baseline projects and cumulative projects. Sections 4.2 through 4.17 are each devoted to a particular environmental topic. Each section describes the environmental setting and regulatory framework, provides an analysis of the potential environmental impacts of the proposed project (i.e., Specific Plan buildout under either the Office Scenario or Life Sciences Scenario, and the off-site improvements) and Phase 1, including the related offsite improvements; cumulative impacts of the Specific Plan buildout and the off-site improvements; and identifies feasible mitigation measures (if necessary) to reduce significant impacts. The following topics are analyzed:
  - Air Quality (Section 4.2)

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<sup>1</sup> As discussed in Chapter 3, *Project Description*, certain portions of the off-site improvements included under the proposed project are located within the jurisdictions of other agencies (i.e., City of San Bruno and BART), and would be subject to separate approval by these jurisdictions.

- Biological Resource (Section 4.3)
- Cultural Resources (Section 4.4)
- Energy (Section 4.5)
- Geology and Soils (Section 4.6)
- Greenhouse Gas Emissions (Section 4.7)
- Hazards and Hazardous Materials (Section 4.8)
- Hydrology and Water Quality (Section 4.9)
- Land Use and Planning (Section 4.10)
- Noise and Vibration (Section 4.11)
- Population and Housing (Section 4.12)
- Public Services (Section 4.13)
- Recreation (Section 4.14)
- Transportation and Circulation (Section 4.15)
- Tribal Cultural Resources (Section 4.16)
- Utilities and Service Systems (Section 4.17)

Section 4.18, *Impacts Found Not to Be Significant*, summarizes the environmental topics for which the project would have no impact. The following topics are discussed in Section 4.18:

- Aesthetics
- Agricultural and Forest Resources
- Mineral Resources
- Wildfire
- Chapter 5, *Alternatives*, summarizes three alternatives to the proposed project as well as the comparative environmental consequences and benefits of each alternative. The No-Project Alternative and two additional alternatives are analyzed, including the Reduced Project Alternative and the No Intersection Alternative. This chapter also identifies the environmentally superior alternative and discusses any alternatives that were considered for analysis in the EIR but rejected, then gives the reasons for their rejection.
- Chapter 6, *Other CEQA Considerations*, contains the discussion of mandatory findings of significance (including cumulative impacts), growth-inducing impacts, significant impacts that cannot be avoided, significant irreversible environmental changes, and areas of known controversy, and project-related issues that have not been resolved.
- Chapter 7, *Report Preparers*, identifies the lead agency, organizations, and individuals consulted during preparation of this EIR. In addition, the project sponsor team and the consultants working on the EIR are identified.

Appendices to this EIR are as follows:

- Appendix 1 Notice of Preparation (NOP) and Comments Received on the NOP
- Appendix 2 Draft Southline Specific Plan
- Appendix 4.2-1 Air Quality, Greenhouse Gas, and Energy Modeling Results
- Appendix 4.3-1 Tree Inventory
- Appendix 4.3-2 Biological Database Queries
- Appendix 4.4-1 Department of Parks and Recreation (DPR) Forms
- Appendix 4.4-2 Preliminary Assessment of Potential Historic District
- Appendix 4.6-1 Design-Level Geotechnical Investigation
- Appendix 4.8-1 Hazards and Hazardous Materials Reports
- Appendix 4.9-1 Storm Drainage Technical Study
- Appendix 4.11-1 Noise Modeling Results
- Appendix 4.15-1 Transportation Impact Analysis
- Appendix 4.16-1 Tribal Outreach Materials
- Appendix 4.17-1 Draft Water Supply Assessment
- Appendix 4.17-2 Water Infrastructure Technical Study
- Appendix 4.17-3 Sanitary Sewer Technical Study
- Appendix 4.17-4 Pacific Gas & Electric (PG&E) Electric/Dry Utility Planning Study
- Appendix 4.17-5 Gas Will-Serve Letter
- Appendix 4.18-1 Shadow Study

## Chapter 2

# Executive Summary

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This environmental impact report (EIR) has been prepared in accordance with the provision of the California Environmental Quality Act (CEQA) to evaluate the potential impacts of the proposed Southline Specific Plan Project (proposed project), including the first phase of development (Phase 1) in the City of South San Francisco, San Mateo County, California (City). As required by Section 15123 of the CEQA Guidelines, this summary chapter is intended to highlight major areas of importance in the environmental analysis. Following the summary description of the proposed project, **Table 2-1, p. 2-4**, presents a summary of the environmental impacts of the proposed project and feasible mitigation measures identified to reduce significant impacts. Following the summary table is a description of the alternatives to the proposed project that are addressed in this EIR, including a description of the environmentally superior alternative. The final subsection in this chapter is a summary of environmental issues to be resolved and areas of known controversy.

## 2.1 Summary Description

This EIR analyzes the potential environmental impacts that could result from implementation of the proposed project, which comprises buildout allowed under the proposed Southline Specific Plan (Specific Plan) in addition to proposed off-site transportation and circulation improvements, some of which would be located within the City of San Bruno (collectively, referred to as the proposed project). The project applicant is Lane Partners. The City of South San Francisco is the Lead Agency for the proposed project under CEQA. The EIR provides a program-level analysis of the potential effects on the environment that could occur from implementation of the proposed project. In addition, the EIR provides a project-level analysis of the initial development phase of the Specific Plan (Phase 1), which is a component of the proposed project.

The proposed project would redevelop a 26.5-acre<sup>1</sup> industrial site (Specific Plan area) within the City of South San Francisco's (City's) Lindenville Planning Sub-area, located in proximity to the San Bruno Bay Area Rapid Transit (BART) station, with a transit-oriented research and development (R&D)/office campus. The proposed project would also construct off-site transportation, circulation, and infrastructure improvements at several locations outside the Specific Plan area, some of which are located within the City of San Bruno (off-site improvement areas), totaling approximately 6.4 acres. Together, the Specific Plan area and the off-site improvements are referred to as the proposed project, and these combined areas compose the project site, totaling approximately 33 acres (project site). The Specific Plan area is located at the intersection of South Maple Avenue and Tanforan Avenue adjacent to the City of San Bruno. The Specific Plan area is bounded by commercial, industrial, and warehouse facilities to the north and east, single-family residences to the south, and the San Bruno Bay Area Rapid Transit (BART) Station, The Shops at Tanforan, and San Bruno Towne Center to the west. In addition, the Centennial Way Trail, a Class-I multi-use path, runs generally parallel and west of the Specific Plan area. The approximately 26.5-acre Specific Plan area encompasses seven parcels (Assessor's Parcel Numbers 014-250-090, 014-250-080, 014-250-050, 014-241-030, 014-241-040, 014-232-030, and 014-232-050), and currently consists of a variety of

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<sup>1</sup> Except as otherwise noted, all references to acreage, square footage, and other measurements are approximate.

office, industrial, warehouse, and storage facilities that were largely constructed in the 1940s and 1950s. The existing structures total nearly 344,000 square feet and include approximately 380 surface parking spaces.

The proposed project would demolish all existing on-site uses within the Specific Plan area and construct a transit-oriented R&D/office campus with a maximum anticipated building area of approximately 2.8 million square feet, including 3,064 underground parking spaces at various locations throughout the Specific Plan area, a nine-story parking structure with approximately 2,705 spaces (referred to as Parking Structure C), a new east-west connection road (Southline Avenue; provisionally named for the purpose of the Specific Plan and CEQA review), supportive utilities and related infrastructure, and up to 341,800 square feet (approximately 7.8 acres) of open space. Development would include commercial office/R&D buildings envisioned to accommodate office and R&D tenants and supporting amenity uses, ranging in height from four to seven stories, subject to maximum building height limits in accordance with FAA and Airport Land Use Compatibility Plan (ALUCP) requirements for San Francisco International Airport.

Off-site improvements would include the following improvements within the City of South San Francisco:

- reconfiguration of the South Linden Avenue and Dollar Avenue intersection;
- reconfiguration of the existing at-grade rail crossing at South Linden Avenue;
- roadway widening of, and street front improvements on South Maple Avenue; and
- signalization of intersections at the main Southline campus entry point at Southline Avenue, and Dollar Avenue and Southline Avenue.

The off-site improvements also include the following improvements located outside of the City and within the jurisdiction of the City of San Bruno and/or BART, which are subject to separate application, review, and approval requirements from the City of San Bruno and/or BART for facilities within its jurisdiction:

- a new signalized intersection, reconfiguring Huntington Avenue, connecting it to the new Southline Avenue and providing for improved adjacent bicycle and pedestrian facilities;
- reconfiguration of Tanforan Avenue to create a cul-de-sac limiting through traffic; and
- a new dedicated, signalized northbound left turn lane on Huntington Avenue providing a new entrance into the transit center for SamTrans buses.

The proposed project would also remove, install, or relocate several utilities (aboveground and underground), sidewalks, curbs, and streetscape improvements within the cities of South San Francisco and San Bruno, and within BART jurisdiction.

Phase 1, generally located in the southwest corner of the project site, would include the construction of Building 2 (an approximately 88,200 square foot amenities building), Building 1, Building 7, all located south of the new Southline Avenue, and the eastern portion of Parking Structure C, located north of the new Southline Avenue. In total, Phase 1 development would include approximately 700,915 square feet of building area and up to approximately 2,754 parking spaces in a combination of below-grade parking and the eastern portion of Parking Structure C. In addition, under Phase 1, vehicle and pedestrian circulation would be improved through the new public Southline Avenue roadway that would provide connectivity through the project area, as well as new internal private

roadways, walkways, and bicycle paths that would provide access to parking, loading, and building areas. The majority of the off-site improvements, with the exception of the South Maple Avenue roadway and street front improvements, would occur as part of Phase 1. Phase 1 construction would occur on approximately 11.93 acres within the Specific Plan area and 5.03 acres within the off-site improvement areas, totaling 16.96 acres (Phase 1 site).

The proposed project would require approval of certain entitlements from the City and other agencies to enable its development, including, but not limited to: Specific Plan adoption and related general plan, zoning map, and zoning text amendments to reflect adoption of the Specific Plan; Design Review, Vesting Tentative Map approval; Transportation Demand Management (TDM) Plan approval; Precise Plan approval for Phase 1 and subsequent phases; and a Development Agreement. Approvals from the City of San Bruno and/or BART would also be required to construct the off-site improvements in their jurisdictions. If the requested entitlements are approved by the City, construction of the proposed project would be implemented over time and in a phased approach, with full project buildout anticipated in 2030. Two to three phases are anticipated, with Phase 1 construction anticipated to commence in 2022 and occur over approximately 30 months, with an anticipated completion date in 2024.

Refer to Chapter 3, *Project Description*, of this EIR for a detailed description of the project components and required governmental approval.

## 2.2 Southline Specific Plan Project Impacts and Mitigation Measures

**Table 2-1, p. 2-4**, provides an overview of the following, with respect to both the proposed project as a whole and specific to Phase 1:

- Environmental impacts with the potential to occur as a result of the proposed project;
- Level of significance of the environmental impacts before implementation of any applicable mitigation measures, which are described as follows:
  - NI: No Impact
  - LTS: Less than Significant
  - LTSM: Less than Significant with Mitigation
  - S: Significant
  - SU: Significant and Unavoidable
- Mitigation measures that would avoid or reduce significant environmental impacts; and
- The level of significance for each impact after the mitigation measures are implemented.

A detailed description of project impacts and mitigation measures are discussed in Chapter 4, *Setting, Impacts, and Mitigation*, of this EIR.

**Table 2-1. Summary of Project Impacts and Mitigation Measures**

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Agriculture and Forest Resources (refer to Section 4.18, <i>Impacts Found Not to Be Significant</i>)</b>			
<b>Impact AG-1:</b> The project would not convert designated Farmland under the Farmland Mapping and Monitoring Program, nor would it conflict with any existing agricultural zoning or a Williamson Act contract, nor would it involve any changes to the environment that would result in the conversion of designated Farmland.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Impact AG-2:</b> The project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]).	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Air Quality</b>			
<b>Impact AQ-1:</b> The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact AQ-2a:</b> Construction of future Precise Plans under the Specific Plan, not including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal (ozone) or state (ozone and PM) ambient air quality standard during construction.	Project: S Phase 1: S	<b>Mitigation Measure AQ-1: Require Fugitive Dust Best Management Practices (All Phases)</b>  All applicants proposing development of projects within the project site, including the Phase 1 applicant, shall require their contractors, as a condition of contract, to reduce construction-related fugitive dust by implementing BAAQMD's basic control measures at all construction and staging areas. The following measures are to be required as such contract conditions and are based on BAAQMD's current CEQA guidelines:	Project: SU Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>• All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) shall be watered two times per day.</li> <li>• All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</li> <li>• All visible mud or dirt track-out onto adjacent public roads shall be removed using wet-power vacuum street sweepers at least once per day. The use of dry-power sweeping shall be prohibited.</li> <li>• All vehicle speeds on unpaved roads, driveways, or driving surfaces shall be limited to 15 mph.</li> <li>• All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.</li> <li>• A publicly visible sign shall be posted with the telephone number and the name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of BAAQMD shall also be visible to ensure compliance.</li> </ul>	
		<p><b>Mitigation Measure AQ-2: Require at Least Tier 4 Final Engines on Construction Equipment (All Phases)</b></p> <p>All applicants proposing development of projects within the project site, including the Phase 1 applicant, shall require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment operates with at least EPA-approved Tier 4 Final or newer engines. Exemptions can be made for specialized equipment when Tier 4 engines are not</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>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. At least 95 percent of off-road equipment must operate with at least an EPA-approved Tier 4 Final or newer engine.</p> <p><b>Mitigation Measure AQ-3: Require Use of Diesel Trucks with 2010-Compliant Model Year Engines (Future Phases Only)</b></p> <p>Applicants of future Precise Plans other than Phase 1 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 CARB's EMFAC2017 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 it is not feasible to locate such engines following a good-faith effort.</p> <p><b>Mitigation Measure AQ-4: Require Construction Fleet to Use Renewable Diesel (Future Phases Only)</b></p> <p>Applicants of future Precise Plans other than Phase 1 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 operates on renewable diesel (such as high-performance renewable diesel). Exemptions can be made for specialized equipment that cannot operate with renewable diesel or if renewable diesel is not commercially available. The contractor must provide documentation to the City showing that specialized equipment cannot use renewable diesel and that a good-faith effort to obtain renewable diesel was conducted.</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p><b>Mitigation Measure AQ-5: Require Low-VOC Coatings during Construction (Future Phases Only)</b></p> <p>Applicants of future Precise Plans other than Phase 1 shall require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings with a VOC content of 10 grams/liter or less are used during construction. The applicant shall submit evidence of the use of low-VOC coatings to BAAQMD prior to the start of construction.</p> <p><b>Mitigation Measure AQ-6: Purchase of Mitigation Credits for Construction Emissions Exceeding BAAQMD's Daily Pollutant Thresholds (Future Phases Only)</b></p> <p>Applicants of future Precise Plans other than Phase 1 shall compare their project size with the BAAQMD screening sizes appropriate to their project for construction criteria pollutants, as found in Table 3-1 in BAAQMD's current CEQA Guidelines (2017). The screening limit for general office buildings, an office park, or a government office building is 277,000 square feet. The screening limit for general light industrial buildings, including Research and Development uses, is 259,000 square feet. If the project is less than the screening limit for its project type, the applicant shall disclose to the City whether construction-related activities would include any of the following:</p> <ul style="list-style-type: none"> <li>• Demolition,</li> <li>• Simultaneous occurrence of more than two construction phases (e.g., paving and building construction) or simultaneous occurrence of construction with other Specific Plan development,</li> <li>• Simultaneous construction of more than one land use type,</li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>• Extensive site preparation (i.e., greater than default assumptions used by the CalEEMod model for grading, cut and fill, or earth movement), or</li> <li>• Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export), requiring a considerable amount of haul truck activity.</li> </ul> <p>If the project is less than the screening limit for the project type and construction would involve none of the five conditions above, then no further action shall be required. 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 Precise Plan application to the City. The City will review the estimate and confirm whether offsets are required for construction. If the City-confirmed estimate indicates that the proposed development estimate would not result in construction emissions exceeding BAAQMD's daily pollutant thresholds, no further action shall be required.</p> <p>For proposed developments that are estimated to result in exceedances of thresholds, prior to start of construction 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 reduce each pollutant that is above the threshold to below the threshold. Emission reduction projects and fees will be determined in consultation with the applicant and the third-party (e.g., Bay Area Clean Air Foundation) or governmental</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>entity and include administrative costs for the offset provider (e.g., five percent of the fee amount). The agreement that specifies fees and the 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 construction activity which is estimated to result in an exceedance for the year. The payment for the emissions can either be on an annual basis or made once upfront prior to construction.</p> <p>To qualify under this mitigation measure, the specific emissions reduction project(s) must result in emission reductions in the SFBAAB that are real, surplus, quantifiable, enforceable, and would not otherwise be achieved through compliance with existing regulatory requirements or any other legal requirement.</p> <p>During construction, construction contractors shall provide annual construction activity monitoring data to estimate actual construction emissions. Applicants shall submit the annual construction activity monitoring data and an estimate of actual annual criteria pollutant emissions to the City and BAAQMD for review by February 1 of each year for the prior construction year. The annual report shall reconcile paid fees for the prior year relative to actual emissions. If more emissions were generated than fees paid, the applicant shall submit payment to the third-party or governmental entity for the deficient amount. If more fees were paid than emissions generated, the third-party or governmental entity shall either issue the applicant a refund for the surplus or issue a credit that can be applied to future fee payments.</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact AQ-2b:</b> Operation of the Specific Plan, including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard during operation.	Project: S Phase 1: S	<p><b>Mitigation Measure AQ-7: Purchase of Mitigation Credits for Operational Emissions Exceeding BAAQMD's Daily Pollutant Thresholds (All Phases)</b></p> <p><i><b>For future Precise Plans not including Phase 1:</b></i> Applicants proposing development of future Precise Plans other than Phase 1 shall compare their project size with the BAAQMD screening sizes appropriate to their project for operational criteria pollutants, as found in Table 3-1 of BAAQMD's current CEQA Guidelines (2017). The screening limit for general office buildings, an office park, or a government office building is 346,000 square feet, 323,000 square feet, and 61,000 square feet, respectively. The screening limits for general light industrial buildings, including Research and Development uses, are any of the following: 541,000 square feet, 72 acres, or 1,249 employees. If the project is less than the screening limit for the project type, then no further action shall be required.</p> <p>Projects not excluded by the conditions 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 operation to the BAAQMD thresholds used in the EIR for criteria pollutants (see <b>Table 4.2-4</b>). The emissions estimate shall be provided as part of the project's Precise Plan application to the City for the project. The City will review the estimate and confirm whether offsets are required for operation. If so, the procedure described below shall be followed. 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 shall be required.</p> <p><i><b>For Phase 1 and future Precise Plans that are shown to exceed BAAQMD's annual operations emissions</b></i></p>	Project: SU Phase 1: SU

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p><b>thresholds:</b> For proposed developments that are estimated to result in exceedances of thresholds during any year of the project's life, including Phase 1, the project applicant shall coordinate with a third-party (e.g., Bay Area Clean Air Foundation) or governmental entity to pay 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 fees will be determined in consultation with the applicant and the third-party or governmental entity and include administrative costs for the offset provider (e.g., five percent of the fee amount). The agreement that specifies fees and the 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 operational activity which is estimated to result in an exceedance for the year. The payment for the emissions can either be on an annual basis or made once up front prior to operation.</p> <p>To qualify under this mitigation measure, the specific emissions reduction project(s) must result in emission reductions in the SFBAAB that are real, surplus, quantifiable, enforceable, and would not otherwise be achieved through compliance with existing regulatory requirements or any other legal requirement. During operation, building managers will provide annual operation activity monitoring data to estimate actual operation emissions. Applicants will submit the annual operation activity monitoring data and an estimate of actual annual criteria pollutant emissions to the City and BAAQMD for review by February 1 of each year for the prior operation year. The annual report will reconcile paid fees for the prior year relative to actual emissions. If</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact AQ-3:</b> Future phases of the project, not including Phase 1, could expose sensitive receptors to substantial pollutant concentrations.	Project: S Phase 1: S	<p>more emissions were generated than fees paid, the applicant will submit payment to the third-party or governmental entity for the deficient amount. If more fees were paid than emissions generated, the third-party or governmental entity will either issue the applicant a refund for the surplus or a credit that can be applied to future fee payments.</p> <p>Example offset projects include electrification of stationary internal combustion engines; replacing old trucks with new, cleaner, more efficient trucks; and other stationary and mobile source emissions-reducing projects.</p> <p><b>Mitigation Measure AQ-8: Limit the Number of Phase 1 Emergency Generators Tested to One Generator Per Day (Phase 1 Only)</b></p> <p>No more than one Phase 1 emergency generator shall be tested in any 24-hour period. This requirement shall apply to routine testing events anticipated to occur every month and full load testing events anticipated to occur every 36 months (3 years).</p>	Project: SU Phase 1: LTSM
		<p>Implement <b>Mitigation Measures AQ-1 through AQ-4</b>, and <b>Mitigation Measure AQ-6</b>, above, as applicable to each Precise Plan.</p> <p><b>Mitigation Measure AQ-9: Require Future Projects within 1,000 Feet of Sensitive Receptors to Perform a Health Risk Assessment (Future Phases Only)</b></p> <p>All applicants proposing development of projects, other than Phase 1, within 1,000 feet of existing sensitive receptors, as defined by BAAQMD (e.g., residential), shall prepare a site-specific construction and operational HRA. The HRA shall include all reasonably foreseeable sources of TAC, consistent with BAAQMD guidelines. If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures or</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		PM2.5 concentrations for adjacent receptors would be less than BAAQMD project-level thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks or PM2.5 concentrations would exceed BAAQMD project-level thresholds, additional feasible on- and off-site mitigation would be analyzed by the applicant to help reduce risks to the greatest extent practicable. Mitigation may include installation of indoor air filters (MERV 13 or higher) at sensitive receptor locations and planting of vegetation and trees as pollution buffers.	
<b>Impact AQ-4:</b> The project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-AQ-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not conflict with or obstruct implementation of the applicable air quality plan.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-AQ-2:</b> Construction and operation under the Specific Plan, inclusive of Phase 1, together with the cumulative projects identified, could result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a non-attainment area under an applicable federal or state ambient air quality standard.	Project: S Phase 1: S	Implement <b>Mitigation Measures AQ-1 through AQ-8</b> , above, as applicable to each Precise Plan.	Project: SU Phase 1: SU
<b>Impact C-AQ-3:</b> Construction and operation of future Precise Plans under the Specific Plan, not including Phase 1, together with the cumulative projects identified, could expose sensitive receptors to substantial pollutant concentrations.	Project: S Phase 1: S	Implement <b>Mitigation Measures AQ-1 through AQ-7</b> , and <b>AQ-9</b> , above, as applicable to each Precise Plan.	Project: SU Phase 1: LTSM
<b>Impact C-AQ-4:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in other emissions (such as those	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
leading to odors) that would adversely affect a substantial number of people.			
<b>Biological Resources</b>			
<b>Impact BIO-1:</b> The project would not have a substantial adverse effect, either directly or indirectly through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS.	Project: S Phase 1: S	<b>Mitigation Measure BIO-1a: Preconstruction Nesting Bird Surveys and Buffer Areas (All Phases)</b>  The Phase 1 applicant, and applicants of future Precise Plans, shall implement the following measures prior to the commencement of any demolition or construction activities on the project site that meet the criteria set forth below: <ul style="list-style-type: none"> <li>a. To the extent feasible, conduct initial activities, including, but not limited to, vegetation removal, tree removal, ground disturbance, building or parking lot demolition, site grading, and other construction activities which may compromise breeding birds or the success of their nests outside the nesting season (February 15–September 15).</li> <li>b. If construction occurs during the bird nesting season, a qualified wildlife biologist<sup>2</sup> shall conduct a nesting bird preconstruction survey within 14 days prior to the start of construction or demolition at areas within the project site where construction or demolition activities have not previously occurred, or after any pause in construction or demolition activities of 14 days or more in areas where construction or demolition activities have not previously occurred. The survey shall be performed within the following radii of the applicable construction area in order to locate any active nests: 100 feet for passerine species,</li> </ul>	Project: LTSM Phase 1: LTSM

<sup>2</sup> The experience requirements for a “qualified biologist” shall include a minimum of 4 years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of 2 years of experience conducting surveys for each species that may be present within the project site.

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>300 feet for raptor (birds of prey) species, and 500 feet for peregrine falcon; and shall be of those areas that constitute suitable habitat for these species.</p> <p>c. If active nests are located during the preconstruction nesting bird survey, a qualified biologist shall determine if the schedule of construction activities could affect the active nests; if so, the following measures would apply:</p> <ol style="list-style-type: none"> <li>1. If the qualified biologist determines that construction is not likely to affect an active nest, construction may proceed without restriction; however, a qualified biologist shall regularly monitor the nest at a frequency determined appropriate for the surrounding construction activity to confirm there is no adverse effect. Spot-check monitoring frequency would be determined on a nest-by-nest basis, considering the particular construction activity, duration, proximity to the nest, and physical barriers that may screen activity from the nest.</li> <li>2. If it is determined that construction may cause abandonment of an active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s), and all project work shall halt within the buffer to avoid disturbance or destruction until a qualified biologist determines that the nest is no longer active. Typically, buffer distances are a minimum of 100 feet for passerines and 300 feet for raptors; however, the buffers may be decreased if an obstruction, such as a building, is within line-of-sight between the nest and construction.</li> </ol>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<ol style="list-style-type: none"> <li>3. Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests shall be approved by the qualified biologist and in coordination with the Planning Division. To the extent necessary to remove or relocate an active nest, such removal or relocation shall be coordinated with the Planning Division, and the removal or relocation shall be in compliance with the California Fish and Game Code and other applicable laws.</li> <li>4. Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed and could compromise the nest, work within the no-disturbance buffer(s) shall halt until the nest occupants have fledged.</li> <li>5. Any birds that begin nesting within the project site and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels. Work may proceed around these active nests subject to Measure c.2 above.</li> </ol>	
		<p><b>Mitigation Measure BIO-1b: Preconstruction Bat Surveys and Protection (Phase 1 Only)</b></p> <p>Prior to the demolition of the existing buildings and structures within the Specific Plan area, the Phase 1 applicant shall retain a qualified biologist to conduct a habitat assessment and implement protective measures for pallid bat, Townsend's big-eared bat, and hoary bat, and other</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>roosting bats, which shall include an initial daytime survey to assess the building for potential bat roosting habitat, and to look for bats and signs of bats. It is recommended that the habitat assessment be conducted by a qualified biologist at least two months and no more than six months prior to demolition activities. Qualified biologists shall have knowledge of the natural history of the species that could occur and sufficient experience determining bat occupancy and bat survey techniques. The qualified biologist shall examine both the inside and outside of the buildings and structures for potential roosting habitat, as well as routes of entry to the buildings and structures. Locations of any roosting bats, signs of bat use, and entry and exit points shall be noted and mapped on a drawing of the buildings and structures. Roost sites shall also be photographed as feasible. The methods and results of the habitat assessment and the future steps to be taken shall be submitted to CDFW. Recommendations received from CDFW shall be considered by the City and incorporated into future steps to be taken unless the City determines them to be infeasible. The City shall make good faith efforts to coordinate with CDFW to discuss revisions to any CDFW recommendations the City considers to be infeasible. Depending on the results of the habitat assessment, the following steps will be taken as described below.</p> <ul style="list-style-type: none"> <li>• If the buildings and structures can be adequately assessed (i.e., sufficient areas of the buildings and structures can be examined) and no habitat or limited habitat for roosting bats is present, and no signs of bat use are present, a preconstruction survey of the interior and exterior of the buildings and structures by a qualified biologist shall be conducted within 24 hours of demolition.</li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>• If moderate or high potential habitat is present but there are no signs of bat use, the Phase 1 applicant shall implement feasible measures under the guidance of a qualified biologist to exclude and/or discourage bats from using the buildings and structures as a roost site, such as sealing off entry points. Feasible measures shall be determined based on the condition of the buildings and structures. Prior to installing exclusion measures, a qualified biologist shall re-survey the buildings and structures to ensure that no bats are present. In addition, a preconstruction survey of the interior and exterior of the buildings and structures shall be conducted within 24 hours of demolition to confirm that no bats are present.</li> <li>• If moderate or high potential habitat is present and bats or signs of bats are observed, or if exclusion measures are not installed as described above, or the buildings or structures provide suitable habitat but could not be adequately assessed, the Phase 1 applicant shall implement the following protective measures. <ul style="list-style-type: none"> <li>○ Follow-up surveys shall be conducted to determine if bats are present prior to commencement of demolition. The Phase 1 applicant shall submit a survey plan (number, timing, and type of surveys) to the City and CDFW; recommendations received from CDFW shall be considered and incorporated into the plan unless the City determines them to be infeasible. If CDFW requests that the bats be identified to species, the follow-up survey(s) shall include use of night vision goggles and active</li> </ul> </li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>acoustic monitoring using full spectrum bat detectors.</p> <ul style="list-style-type: none"> <li>Based on the timing of demolition, the extent of bat signs and/or occupied habitat, and the species present (if determined), as determined by the qualified biologist, the biologist shall develop a bat exclusion plan to discourage or exclude bat use prior to demolition. The Phase 1 applicant shall submit the bat exclusion plan to the City and CDFW for review and approval, pursuant to Section 4150 of the Fish and Game Code. Reasonable methods to discourage or exclude bat use may include installing exclusion measures such as one-way doors or using light or other means to deter bats from using the buildings and structures to roost, such as sealing large holes or gaps void of bats using the installation of plywood and/or metal sheeting, and/or sealing small holes or gaps void of bats using installation of expandable foam or steel wool.</li> <li>A preconstruction survey of the interior and exterior of the buildings and structures shall be conducted within 24 hours of demolition.</li> </ul> <p>Depending on the species of bats present, the size of the bat roost, and timing of the demolition, additional protective measures may be recommended by the qualified biologist or CDFW, and may include measures listed below, which shall be undertaken by the Phase 1 applicant.</p> <ul style="list-style-type: none"> <li>To avoid impacts on maternity colonies or hibernating bats, the buildings and structures shall not be demolished while bats are confirmed to be</li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>present, generally between April 1 and September 15 (maternity season) and from November 1 to March 1 (hibernation).</p> <ul style="list-style-type: none"> <li>○ Removal of occupied roosting habitat shall only occur following the maternity season and prior to hibernation, generally between September 15 and October 31, unless exclusionary devices are first installed (as described above). Other measures, such as using lights to deter bat roosting, may be used if developed in compliance with applicable law and coordination with and approval by CDFW.</li> <li>○ Installation of exclusion devices shall occur before maternity colonies establish or after they disperse, generally from March 1–30 or September 15–October 31 to preclude bats from occupying a roost site during demolition to the extent feasible. Exclusionary devices shall only be installed by or under the supervision of a qualified biologist.</li> </ul> <p>The Phase 1 applicant shall implement the following measures prior to any tree removal on the project site:</p> <ul style="list-style-type: none"> <li>● A qualified biologist shall examine trees to be removed for suitable bat roosting habitat (e.g., large tree cavities, basal hollows, loose or peeling bark, larger snags, palm trees with intact thatch) before tree removal. Trees providing suitable or potential bat habitat shall be marked with flagging and identified as potential habitat. Because of the limited timeframe for tree removal for trees containing bat habitat (i.e., September 15–October 31), the tree habitat assessment should be conducted early enough in the calendar year to provide information to the applicant and City to inform tree removal planning. The protective measures</li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>listed below shall be implemented for trees containing potential roosting habitat.</p> <ul style="list-style-type: none"> <li>○ Removal or disturbance of trees providing bat roosting habitat shall be avoided between April 1 and September 15 (the maternity period) to avoid effects on pregnant females and active maternity roosts (whether colonial or solitary).</li> <li>○ Removal of trees providing bat roosting habitat shall be conducted between September 15 and October 31, which corresponds to a time period when bats have not yet entered torpor or would be caring for nonvolant young.</li> <li>○ If a maternity roost is found, whether solitary or colonial, that roost shall remain undisturbed until September 15 or until a qualified biologist has determined the roost is no longer active. The qualified biologist will determine appropriate no-work buffers around roost and/or hibernaculum sites. Buffer distances may vary depending on the species and activities being conducted.</li> <li>● Removal of trees (between September 15 and October 31) providing suitable roosting habitat shall be monitored by qualified biologists. Trees that provide suitable habitat for bats shall be removed in a two-phase removal process conducted over two consecutive days. In the afternoon on the first day, limbs and branches shall be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices, or deep bark fissures shall be avoided, and only branches or limbs without those features shall be removed. On the second day, the remainder of the tree shall be removed. A qualified biologist shall search downed vegetation for dead and injured bats. After tree</li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>removal and monitoring completion, the biologist shall prepare a biological monitoring report, which shall be provided to the City and to CDFW. The presence of dead or injured bats that are species of special concern resulting from downed trees shall be included in the monitoring report.</p> <p>Loss of occupied roosting habitat shall be mitigated by constructing and/or installing suitable replacement habitat on-site or near the project site which shall be undertaken by the Phase 1 applicant. The roosting habitat shall be monitored by a qualified biologist to ensure it functions as intended, as set forth under a roosting habitat design and monitoring plan developed in coordination with CDFW.</p>	
<b>Impact BIO-2:</b> The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Impact BIO-3:</b> The project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Impact BIO-4:</b> The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Project: S Phase 1: S	<p>Implement <b>Mitigation Measures BIO-1a and BIO-1b</b>, above, as applicable to each Precise Plan.</p> <p><b>Mitigation Measure BIO-2a: Lighting Measures to Reduce Impacts on Birds (All Phases)</b></p> <p>During design, the Phase 1 applicant and applicants of future phases shall ensure that a qualified biologist experienced with bird strikes and building/lighting design issues shall identify lighting-related recommended measures to minimize</p>	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>the effects of the building's lighting on birds to. The applicant shall incorporate such measures into the building's design and operation to the extent feasible, subject to design review and approval by the City, which may include the following and/or other measures.</p> <ul style="list-style-type: none"> <li>a. Use strobe or flashing lights in place of continuously burning lights for obstruction lighting. Use flashing white lights rather than continuous light, red light, or rotating beams.</li> <li>b. Install shields onto light sources not necessary for air traffic to direct light towards the ground.</li> <li>c. Extinguish all exterior lighting (i.e., rooftop floods, perimeter spots) not required for public safety as determined by the City.</li> <li>d. When interior or exterior lights must be left on at night, the operator of the buildings shall examine and adopt feasible alternatives to bright, all-night, floor-wide lighting, which may include installing motion-sensitive lighting, using desk lamps and task lighting, reprogramming timers, or using lower-intensity lighting.</li> <li>e. Windows or window treatments that reduce transmission of light out of the building shall be implemented to the extent feasible.</li> </ul> <p><b>Mitigation Measure BIO-2b: Building Design Measures to Minimize Bird Strike Risk (All Phases)</b></p> <p>During design, the Phase 1 applicant and applicants of future phases shall ensure that a qualified biologist experienced with bird strikes and building/lighting design issues shall identify recommended measures related to the external appearance of</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>the building to minimize the risk of bird strikes. The applicant shall incorporate such measures into the building's design to the extent feasible, subject to design review and approval by the City, which may include the following and/or other measures:</p> <ol style="list-style-type: none"> <li>Minimize the extent of glazing.</li> <li>Use low-reflective glass and/or patterned or fritted glass.</li> <li>Use window films, mullions, blinds, or other internal or external features to "break up" reflective surfaces rather than having large, uninterrupted areas of surfaces that reflect, and thus to a bird may not appear noticeably different from, vegetation or the sky.</li> </ol>	
<b>Impact BIO-5:</b> The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact BIO-6:</b> The project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Impact C-BIO-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on biological resources.	Project: S Phase 1: S	Implement <b>Mitigation Measures BIO-1a, BIO-1b, BIO-2a, and BIO-2b</b> , above, as applicable to each Precise Plan.	Project: LTSM Phase 1: LTSM
<b>Cultural Resources</b>			
<b>Impact CR-1:</b> The project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	Project: S Phase 1: S	<p><b>Mitigation Measure CR-1: Interpretive Signage Program (Phase 1 Only)</b></p> <p>The Phase 1 applicant shall prepare an interpretive signage</p>	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>plan document setting forth the process for design and installation of interpretive signage within the Specific Plan area. The interpretive signage plan shall be developed in coordination with professionals who meet the Secretary of the Interior's Professional Qualification Standards in History or Architectural History.</p> <p>The interpretive signage plan shall include details regarding the proposed locations for the signage and the design of the visual components of the interpretive historic district signage program. The interpretive signage plan does not need to include cost analysis or specifications for the fabrication or installation of the signage program.</p> <p>The interpretive signage plan shall be reviewed and approved by the City of South San Francisco prior to the issuance of a demolition permit for the proposed project. No further discretionary review or approvals are anticipated to be required by the City to implement the interpretive historic district signage program. Implementation of the interpretive signage program shall include the following elements:</p> <ol style="list-style-type: none"> <li>1. Temporary Signage: The temporary historic district interpretive signage program shall include at least one temporary marker or sign regarding South San Francisco's industrial heritage to display within or at the perimeter of the Specific Plan area for the duration of the construction process. The temporary signage shall be installed at a location that is visible from a public right-of-way and shall include a written narrative accompanied by historic images where feasible. As needed due to construction activity, the temporary signage may be relocated to another location that meets these criteria.</li> </ol>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact CR-2:</b> The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Project: S Phase 1: S	2. Permanent Signage: The permanent interpretive signage program shall include a minimum of two and a maximum of four permanent interpretive markers or signs that interpret South San Francisco's industrial heritage and include a history of the land uses previously located within the Specific Plan area. The signs shall describe the industries that operated within the Specific Plan area, such as Colorado Fuel and Iron, Poetsch & Peterson Tannery, and E. I. du Pont de Nemours, and provide a written or visual narrative that places these companies within the context of the City's industrial development. The permanent signage shall use relevant historic photos, historic maps, and company archival materials (such as logos), to illustrate the narrative where feasible given availability and publication permissions of the images. The signs shall be located within the Specific Plan area boundary and shall be visible to both Specific Plan area tenants and the general public from a public right-of-way. No more than half of the signs may be located in lobbies, restaurants, or other public spaces that are inside buildings. The permanent signs shall be installed prior to the issuance of the first Certificate of Occupancy for Phase 1, and may be located solely within the Phase 1 area.	Project: LTSM Phase 1: LTSM
		<b>Mitigation Measure CR-2a: Cultural Resources Worker Environmental Awareness Program (All Phases)</b>  The Phase 1 applicant and applicants of future Precise Plans shall ensure that a qualified archaeologist shall conduct Worker Environmental Awareness Program (WEAP) training for all construction personnel on the project site prior to project-related construction and ground-disturbing activities. The training shall include basic information about	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>the types of artifacts that might be encountered during construction activities and procedures to follow in the event of a discovery. This training shall be provided for any additional personnel added to the project, even after the initiation of construction and ground-disturbing activities.</p> <p><b>Mitigation Measure CR-2b: Halt Construction Activity, Evaluate Find, and Implement Mitigation for Archaeological and Tribal Cultural Resources (All Phases)</b></p> <p>Should a potential archaeological or tribal cultural resource be encountered during project construction activities, the construction contractor shall halt construction within 25 feet of the find and immediately notify the City. A qualified archaeologist, in consultation with the City, shall 1) evaluate the potential resource to determine if it meets the CEQA definition of a unique archaeological resource pursuant to Public Resources Code Section 21083.2 or a tribal cultural resource pursuant to Public Resources Code Section 21074 and 2) make recommendations about the treatment of the resource, as warranted. If the qualified archaeologist determines the find is not a unique archaeological resource, then proper recordation and identification shall be completed and construction shall continue without delay.</p> <p>If the resource meets the CEQA definition of a unique archaeological resource or tribal cultural resource, it shall be avoided to the extent feasible by project construction activities to allow for preservation in place as described under CEQA Guidelines Section 15126.4 (b)(3)(A)-(B). If avoidance is not feasible, and the resource is determined to be a unique archaeological resource, adverse effects to the resource shall be mitigated as specified by Public Resources Code Section 21083.2. This mitigation may include, but is not limited to, a thorough recording of the resource on</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact CR-3:</b> The project would not disturb any human remains, including those interred outside of formal cemeteries.	Project: S Phase 1: S	<p>Department of Parks and Recreation Form 523 records, or archaeological data recovery excavation. If data recovery excavation is warranted, CEQA Guidelines Section 15126.4 (b)(3)(C), which requires a data recovery plan prior to data recovery excavation, shall be followed. If avoidance is not feasible, and the resource is determined to be a tribal cultural resource, additional coordination with the appropriate California Native American tribe(s) shall be conducted in accordance with existing laws to determine appropriate mitigation, including consideration of the measures identified in Public Resources Code Section 21084.3.</p> <p>Implement <b>Mitigation Measures CR-2a and CR-2b</b>, above.</p> <p><b>Mitigation Measure CR-3: Halt Construction Activity, Evaluate Remains, and Take Appropriate Action in Coordination with Native American Heritage Commission (All Phases)</b></p> <p>In the event that human remains are uncovered during site preparation, excavation, or other construction activity, the Phase 1 applicant and applicants of future Precise Plans shall cease or ensure the ceasing of all such construction activity within a radius of 25 feet of the discovery and shall notify the San Mateo county coroner immediately. No further construction activity shall occur within this 25-foot radius until the San Mateo county coroner has evaluated the remains and has taken appropriate action in accordance with Section 5097.98 of the California Public Resources Code. Concurrently, an archaeologist shall be contacted to assess the situation and consult with the appropriate agencies. If the human remains are of Native American origin, the coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours of this identification in accordance with section 5097.98 of the California Public Resources Code, and section 7050.5 of the</p>	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		California Health and Safety Code, as applicable. The NAHC shall identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. The MLD may inspect the site of the discovery and shall complete the inspection within 48 hours of notification by the NAHC.	
<b>Impact C-CR-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on historical resources.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-CR-2:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on archaeological resources and human remains.	Project: S Phase 1: S	Implement <b>Mitigation Measures CR-2a, CR-2b, and CR-3</b> , above.	Project: LTSM Phase 1: LTSM
<b>Energy</b>			
<b>Impact EN-1a:</b> The project would not result in a potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction.	Project: S Phase 1: S	Implement <b>Mitigation Measure GHG-1</b> , below, and <b>Mitigation Measure AQ-4</b> , above, as applicable to each Precise Plan.	Project: LTSM Phase 1: LTSM
<b>Impact EN-1b:</b> The project would not result in potentially significant environmental impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources during project operation.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact EN-2:</b> The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-EN-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a potentially significant	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.			
<b>Impact C-EN-2:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Geology and Soils</b>			
<b>Impact GEO-1:</b> The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact GEO-2:</b> The project would not result in substantial soil erosion or the loss of topsoil.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact GEO-3:</b> The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact GEO-4:</b> The project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact GEO-5:</b> The project would not have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Impact GEO-6:</b> The project would not directly or indirectly destroy a unique paleontological	Project: S Phase 1: S	<b>Mitigation Measure GEO-1: Halt Construction Activity in Case of Finding Paleontological Resources, Evaluate Find, and Excavate Find (All Phases)</b>	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
resource or site or unique geologic feature.		In the event that previously unidentified paleontological resources are uncovered during site preparation, excavation, or other construction activity, the project applicant or successor shall cease all such activity within 25 feet of the discovery or ensure that all such activity within 25 feet of the discovery ceases until the resources have been evaluated by a qualified professional and specific measures can be implemented to protect these resources in accordance with Sections 21083.2 and 21084.1 of the California Public Resources Code. If the find is potentially significant, the project applicant or successor shall ensure a qualified paleontologist shall excavate the find in compliance with state law, keeping project delays to a minimum. If the qualified paleontologist determines the find is not significant then proper recordation and identification shall ensure and the project will continue without delay.	
<b>Impact C-GEO-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a significant cumulative impact on geology and soils.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-GEO-2:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a cumulatively considerable contribution to significant cumulative impacts on paleontological resources.	Project: S Phase 1: S	Implement <b>Mitigation Measure GEO-1</b> , above.	Project: LTSM Phase 1: LTSM
<b>Greenhouse Gas Emissions</b>			
<b>Impact GHG-1a:</b> The project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment during construction.	Project: S Phase 1: S	Implement <b>Mitigation Measure AQ-4</b> , above, as applicable to each Precise Plan.	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Mitigation Measure GHG-1: Require Implementation of BAAQMD-recommended Construction BMPs (All Phases)</b>  The Phase 1 applicant and applicants of future Precise Plans shall require their contractors, as a condition in contracts, to reduce construction-related GHG emissions by implementing BAAQMD's recommended BMPs, based on BAAQMD's CEQA Guidelines: <ul style="list-style-type: none"> <li>• Ensure that alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet,</li> <li>• Use local building materials (at least 10 percent) sourced from within 100 miles of the planning area, and</li> <li>• Recycle and reuse at least 50 percent of construction waste or demolition materials.</li> </ul>			
<b>Impact GHG-1b:</b> The project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment during operation.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact GHG-2:</b> The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs during construction and operation.	Project: S Phase 1: S	Implement <b>Mitigation Measures GHG-1 and AQ-4</b> , above, as applicable to each Precise Plan.	Project: LTSM Phase 1: LTSM
<b>Hazards and Hazardous Materials</b>			
<b>Impact HAZ-1:</b> The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact HAZ-2:</b> The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident	Project: S Phase 1: S	Implement <b>Mitigation Measure HWQ-1</b> , below.	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
conditions involving the release of hazardous materials into the environment.		<p><b>Mitigation Measure HAZ-2a: Prepare a Soil Management Plan Prior to Issuance of Grading Permit (All Phases)</b></p> <p>Prior to issuance of any grading permit, the Phase 1 applicant and applicants of future Precise Plans shall retain the services of a qualified environmental engineering firm to prepare and implement, during site preparation, grading, and excavation activities, a Soil Management Plan (SMP). The SMP shall be designed to protect human health of construction workers, the public and the environment during site preparation, grading, and excavation activities by including protocols, measures, and techniques for the proper handling, management, and disposition of affected soils found on the site and any areas of off-site work during site preparation and grading activities. The SMP shall also ensure the proper characterization, management, and/or disposal of contaminated environmental media that is above applicable Environmental Screening Levels (ESLs) by recommending additional sampling activities (as necessary), including profile sampling for proper disposal. The SMP shall be prepared by a commercial environmental engineering firm with demonstrated expertise and experience in the preparation of SMPs and shall be stamped by an appropriately licensed professional. The SMP shall be implemented by the Phase 1 applicant and applicants of future Precise Plans throughout all ground-disturbing work.</p> <p>The SMP shall establish protocols and measures for addressing the discovery of presently unknown environmental conditions or subsurface structures such as USTs, sumps, or wells. If the environmental engineering firm subsequently identifies the need for further sampling, the project applicant shall implement this and any other requirements identified in the SMP. The project applicant</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>shall enter into a voluntary agreement with the San Francisco Bay Regional Water Quality Control Board (RWQCB) for review and approval of the SMP prior to construction activities. The RWQCB will also have oversight authority pertaining to implementation of the SMP. If directed by the RWQCB, the project applicant shall conduct additional site investigation and characterization prior to construction to ensure that hazardous materials in the soil, soil vapor, and/or groundwater do not exceed applicable regulatory thresholds.</p> <p><b>Mitigation Measure HAZ-2b: Engineering Controls to Address Vapor Encroachment Conditions (Future Phases that Include the Property at 325 South Maple Avenue)</b></p> <p>Prior to the issuance of a building permit for development within the property at 325 South Maple Avenue, the project applicant shall demonstrate compliance with applicable requirements imposed by the San Francisco Bay Regional Water Quality Control Board (RWQCB) or San Mateo County Health, Environmental Health Services for soil vapor sampling and risk evaluation to address vapor intrusion concerns. Prior to the issuance of a certificate of occupancy, engineering controls designed by a qualified engineer to address vapor encroachment conditions by redirecting and or minimizing VOC concentrations in compliance with San Francisco Bay RWQCB (or San Mateo County Health) requirements and shall be implemented on the site. Specific engineering controls may include, but will not be limited to:</p> <ul style="list-style-type: none"> <li>• Installation of subsurface migration barriers; and/or</li> <li>• Inclusion of ventilated foundations for any proposed structures; and/or</li> <li>• The use and implementation of an alternative method or structural design that would address soil gas</li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>releases and reduce the potential for hazardous conditions to occur.</p>	
		<p>Appropriate engineering control system(s) shall be determined with concurrence, approval, and oversight of the San Francisco Bay RWQCB or San Mateo County Health, as applicable, and shall be dependent on future building placement and construction. Project applicants shall comply with all applicable San Francisco Bay RWQCB or San Mateo County Health requirements for long-term operation, monitoring, and maintenance of the vapor mitigation systems. Any land use covenant required by the San Francisco Bay RWQCB or San Mateo County Health to assure the long-term efficacy of the vapor mitigation systems shall be recorded in property title records by the project sponsor(s) or successor owner(s). If at the time of development, the 325 South Maple Avenue site has obtained case closure from the San Francisco Bay RWQCB or San Mateo County Health and vapor intrusion is deemed no longer a concern, implementation of this mitigation measure would no longer be required.</p>	
		<p><b>Mitigation Measure HAZ-2c: Conduct a Hazardous Building Materials Survey prior to Demolition Activities and Hazardous Building Material Handling (All Phases)</b></p>	
		<p>Prior to the issuance of any demolition permit, the Phase 1 applicant and applicants of future Precise Plans shall ensure that a Hazardous Building Materials Survey is conducted by a licensed contractor on structures that will be demolished and have not been surveyed previously. The Hazardous Building Materials Survey shall identify the presence of hazardous building materials including: asbestos-containing materials (ACMs), lead-based paint (LBP), and poly-chlorinated biphenyls (PCBs). Should this survey determine that lead-</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>based paint and/or asbestos or other hazardous building materials are present, the following actions shall be implemented by the Phase 1 applicant and applicants of future Precise Plans:</p> <ul style="list-style-type: none"> <li>• A health and safety plan shall be developed by a certified industrial hygienist for potential lead-based paint, asbestos or other hazardous building materials risks present during demolition. The health and safety plan shall then be implemented by a licensed contractor. The health and safety plan shall comply with federal Occupational Safety and Health Administration (OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA) requirements.</li> <li>• Necessary approvals shall be acquired from the City and/or County (by the licensed contractor) for specifications or commencement of abatement activities. Abatement activities shall be conducted by a licensed contractor.</li> <li>• Prior to demolition of building materials containing asbestos, the Bay Area Air Quality Management District (BAAQMD) shall be notified ten days prior to initiating construction and demolition activities. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. In addition: <ul style="list-style-type: none"> <li>○ Asbestos shall be disposed of at a licensed disposal facility to be identified by the licensed contractor.</li> </ul> </li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>○ The local office of the Cal/OSHA shall be notified of asbestos abatement activities.</li> <li>○ Asbestos abatement contractors shall follow state regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material.</li> <li>○ Asbestos removal contractors shall be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur shall have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento.</li> <li>● The contractor and hauler of hazardous building materials shall file a Hazardous Waste Manifest that details the hauling of the material from the site and the disposal of it. Pursuant to California law, the City of South San Francisco shall not issue the required permit until the applicant has complied with the notice requirements described above.</li> </ul>	
<b>Impact HAZ-3:</b> The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing proposed school.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Impact HAZ-4:</b> The project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment.	Project: S Phase 1: S	Implement <b>Mitigation Measure HAZ-2a</b> , above.	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact HAZ-5:</b> The project would not result in a safety hazard or excessive noise for people residing or working in the project area.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact HAZ-6:</b> The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact HAZ-7:</b> The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Impact C-HAZ-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a significant cumulative impact on hazards and hazardous materials.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Hydrology and Water Quality</b>			
<b>Impact HWQ-1:</b> The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Project: S Phase 1: S	<p><b>Mitigation Measure HWQ-1: Require Groundwater Monitoring and Sampling Prior to Dewatering Activity (All Phases)</b></p> <p>Prior to any construction activity proposing or with the potential to require dewatering, the Phase 1 applicant and applicants of future Precise Plans shall 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. The Phase 1 applicant and applicants of future Precise Plans shall ensure collection and testing of samples prior to initiating construction activities proposing or with the potential to require dewatering. The location of the sampling locations shall be at an appropriate distance from the proposed dewatering site, as determined by a geotechnical evaluation of the local groundwater and soil conditions. If contamination</p>	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact HWQ-2:</b> The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Project: LTS Phase 1: LTS	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 a hazardous materials disposal facility depending on type and levels of contamination, tanking, or stopping or phasing underground construction. Water shall be treated such that it complies with discharge and reporting requirements of the Volatile Organic Compound (VOC) and Fuel General Permit (Order No. R2-2018-0050) and applicable water quality objectives as designated in the San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan), or hauled off-site for treatment and disposal at a permitted waste treatment facility. The applicant shall be responsible for demonstrating to the City that the treatment and disposal requirements set forth in this mitigation measure have been met.	Project: LTS Phase 1: LTS
<b>Impact HWQ-3:</b> 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 or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site, substantially increase the rate or amount of surface runoff in a manner which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede floodflows.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact HWQ-4:</b> The project would not risk release of pollutants due to project inundation as a result of being located in flood hazard, tsunami, or seiche zones.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Impact HWQ-5:</b> The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-HWQ-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a cumulatively considerable contribution to significant cumulative impacts on hydrology and water quality.	Project: S Phase 1: S	Implement <b>Mitigation Measure HWQ-1</b> , above.	Project: LTSM Phase 1: LTSM
<b>Impact C-HWQ-2:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that sustainable groundwater management of the basin would be impeded.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-HWQ-3:</b> The project, inclusive of Phase 1, together with the cumulative projects identified 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: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Land Use and Planning</b>			
<b>Impact LU-1:</b> The project would not physically divide an established community.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact LU-2:</b> The project would not result in an environmental impact due to conflict with any land use plan, policy, or regulation adopted for the	Project: S Phase 1: LTS	Implement <b>Mitigation Measure AQ-4</b> , above, as applicable to each Precise Plan.	Project: LTSM Phase 1: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
purpose of avoiding or mitigating an environmental effect.			
<b>Impact C-LU-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not physically divide an established community.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-LU-2:</b> The project, inclusive of Phase 1, together with the cumulative projects identified 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: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Mineral Resources (refer to Section 4.18, <i>Impacts Found Not to Be Significant</i>)</b>			
<b>Impact MIN-1:</b> The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state and/or a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI
<b>Noise and Vibration</b>			
<b>Impact NOI-1a:</b> Project construction would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.	Project: S Phase 1: S	<p><b>Mitigation Measure NOI-1a: Construction Noise Control Plan to Reduce Noise Outside Standard Construction Hours in the City of South San Francisco (All Phases)</b></p> <p>The Phase 1 applicant and applicants of future Precise Plans and/or the contractor(s) for Phase 1 and future Precise Plans shall obtain a permit to complete work outside the standard construction hours outlined in the South San Francisco and/or San Bruno Municipal Code for work within each respective jurisdiction. In addition, the applicant and/or contractor(s) shall develop a construction noise control plan to reduce noise levels and comply with municipal daytime and nighttime noise standards. Specifically, for noise</p>	Project: SU Phase 1: SU

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>generated in or experienced by receptors in South San Francisco, the plan shall demonstrate that noise from construction activities that occur daily between 7:00 and 8:00 a.m. weekdays and on Saturday will comply with the applicable City of South San Francisco noise limit of 65 dBA at the nearest existing commercial land use and 60 dBA at the nearest multi-family residential land use, and construction activities that occur between 10:00 p.m. and 7:00 a.m. will comply with the applicable City noise limit of 60 dBA at the nearest existing commercial land use and 55 dBA at the nearest multi-family residential land use. In addition, the plan shall demonstrate that noise generated in or experienced by receptors in San Bruno from construction activities that occur between the hours of 10:00 p.m. and 7:00 a.m. shall not exceed a noise level of 60 dBA, as measured at 100 feet. Measures to help reduce noise from construction activity during non-standard construction hours to these levels shall be incorporated into this plan and may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Plan for the noisiest construction activities to occur during daytime hours in both jurisdictions when the quantitative standards are less stringent and when people are less sensitive to noise.</li> <li>• Require all construction equipment be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) that are in good condition (at least as effective as those originally provided by the manufacturer) and appropriate for the equipment.</li> <li>• Maintain all construction equipment to minimize noise emissions.</li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>• Locate construction equipment as far as feasible from adjacent or nearby noise-sensitive receptors.</li> <li>• Require all stationary equipment be located to maintain the greatest possible distance to the nearby existing buildings, where feasible.</li> <li>• 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.</li> <li>• Install noise-reducing sound walls or fencing (e.g. temporary fencing with sound blankets) around noise-generating equipment during nighttime/non-standard daytime hours.</li> <li>• Prohibit the use of impact tools (e.g., jack hammers) during nighttime/non-standard daytime hours.</li> <li>• Prohibit idling of inactive construction equipment for prolonged periods during nighttime/non-standard hours (i.e., more than 2 minutes).</li> <li>• Provide advance notification in the form of mailings/deliveries of notices to surrounding land uses regarding the construction schedule, including the various types of activities that would be occurring throughout the duration of the construction period.</li> <li>• Provide the name and telephone number of an on-site construction liaison through on-site signage and on the notices mailed/delivered to surrounding land uses. If construction noise is found to be intrusive to the</li> </ul>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>community (i.e., if complaints are received), the construction liaison shall take reasonable efforts to investigate the source of the noise and require that reasonable measures be implemented to correct the problem.</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> <p><b>Mitigation Measure NOI-1b: Construction of Temporary Noise Barrier along Tanforan Avenue (Phase 1 Only)</b></p> <p>The Phase 1 contractor(s) shall install a temporary noise barrier along the complete length of Tanforan Avenue that abuts project construction activities, located within the direct line-of-sight path between the noise source and nearby sensitive receptor(s), in advance of project construction. The barrier shall be constructed of material that has a surface weight of at least 1 pound per square foot and has an acoustical rating of at least 25 STC (Sound Transmission Class). This can include a temporary barrier constructed with plywood supported on a wood frame, sound curtains supported on a frame, or other comparable material.</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact NOI-1b:</b> Project operations 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 the local general plan or noise ordinance or applicable standards of other agencies.	Project: S Phase 1: S	<p><b>Mitigation Measure NOI-1c: Mechanical Equipment Noise Reduction Plan (All Phases)</b></p> <p>To reduce potential noise impacts resulting from project heating, cooling, and ventilation equipment, the Phase 1 applicant and applicants of future Precise Plans shall conduct a noise analysis to estimate noise levels of project-specific mechanical equipment based on the selected equipment models and design features, and create a Noise Reduction Plan to ensure noise levels of equipment, once installed, are below the applicable criteria described below. The Noise Reduction Plan shall include any necessary noise reduction measures required to reduce project-specific mechanical equipment noise to a less-than-significant level. The plan shall also demonstrate that with the inclusion of selected measures, noise from equipment would be below the significance thresholds. Feasible noise reduction measures to reduce noise below the significance threshold include, but are not limited to, selecting quieter equipment, utilizing silencers and acoustical equipment at vent openings, siting equipment farther from the roofline, and/or enclosing all equipment in a mechanical equipment room designed to reduce noise. This analysis shall be conducted and the results and final Noise Reduction Plan shall be provided to the City prior to the issuance of building permits for each phase.</p> <p>The noise analysis and Noise Reduction Plan shall be prepared by persons qualified in acoustical analysis and/or engineering. The Noise Reduction Plan shall demonstrate with reasonable certainty that noise from mechanical equipment selected for the project, including the attenuation features incorporated into the project design, will not exceed the City of South San Francisco property plane threshold of 60 dBA during daytime hours or 55 dBA during nighttime hours for nearby multi-family residential</p>	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>uses, 65 dBA during daytime hours or 60 dBA during nighttime hours for nearby commercial uses, or the City of San Bruno threshold of 10 dB above the ambient noise level at the property plane.</p> <p>The Phase 1 applicant and applicants of future Precise Plans shall incorporate all feasible methods to reduce noise identified above and any other feasible recommendations from the acoustical analysis and Noise Reduction Plan into the building design and operations as necessary to ensure that noise sources meet applicable requirements of the respective noise ordinances at receiving properties.</p> <p><b>Mitigation Measure NOI-1d: Emergency Generator Noise Reduction Plan (All Phases)</b></p> <p>Prior to approval of a building permit for any proposed development under the Specific Plan, including Phase 1, the Phase 1 applicant and applicants of future Precise Plans shall conduct a noise analysis to estimate noise levels from the testing of project-specific emergency generators, and create a Noise Reduction Plan to ensure noise levels of generator testing are below the applicable criteria. This analysis and Noise Reduction Plan may be incorporated together with the analysis described in MM-NOI-1c. This analysis shall be conducted and the Noise Reduction Plan shall be created based on the analysis results. The results, methods, and final Noise Reduction Plan shall be provided to the City prior to the issuance of building permits for each phase. The analysis shall account for proposed noise attenuation features, such as specific acoustical enclosures and mufflers or silences, and the final Noise Reduction Plan shall demonstrate with reasonable certainty that proposed generator(s) will not exceed the City of South San Francisco property plane threshold of 60 dBA for residential uses and 65 dBA for commercial uses during daytime hours, or 55 dBA for</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>residential uses and 60 dBA for commercial uses during nighttime hours, and the City of San Bruno threshold of 10 dB above the ambient noise level. Acoustical treatments may include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Enclosing generator(s);</li> <li>• Installing relatively quiet model generator(s);</li> <li>• Orienting or shielding generator(s) to protect noise-sensitive receptors to the greatest extent feasible;</li> <li>• Installing exhaust mufflers or silencers;</li> <li>• Increasing the distance between generator(s) and noise-sensitive receptors; and/or</li> <li>• Placing barriers around generator(s) to facilitate the attenuation of noise.</li> </ul> <p>In addition, all project generator(s) shall be tested only between the hours of 7:00 a.m. and 8:00 p.m.</p> <p>The Phase 1 applicant and applicants of future Precise Plans shall incorporate all recommendations from the acoustical analysis into the building design and operations to ensure that noise sources meet applicable requirements of the noise ordinance.</p>	
<b>Impact NOI-2:</b> The project would not generate excessive ground-borne vibration or ground-borne noise levels.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact NOI-3:</b> The project would not expose people residing or working in the project area to excessive noise levels for a project located within the vicinity of a private airstrip or an airport land use plan or, where such plan has not been adopted, within 2 miles of a public airport or public use airport.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-NOI-1:</b> The project, inclusive of Phase 1,	Project: S	Implement <b>Mitigation Measure NOI-1a, NOI-1b, and NOI-</b>	Project: SU

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
together with the cumulative projects identified, could 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 the local general plan or noise ordinance or applicable standards or other agencies.	Phase 1: S	1c, above, as applicable to each Precise Plan.	Phase 1: SU
<b>Impact C-NOI-2:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in the generation of excessive ground-borne vibration or ground-borne noise levels.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-NOI-3:</b> The project, inclusive of phase 1, together with the cumulative projects identified would not expose people residing or working in the project area to excessive noise levels.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Population and Housing</b>			
<b>Impact PH-1:</b> The project would not induce substantial unplanned population growth in an area, either directly or indirectly.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-PH-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on planned population and housing growth.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Public Services</b>			
<b>Impact PS-1:</b> The project would not require the provision of new or physically altered fire and emergency medical services in order to maintain acceptable service ratios, response times, or other performance objectives.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact PS-2:</b> The project would not require the provision of new or physically altered police	Project: LTS	None required.	Project: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
protection services in order to maintain acceptable service ratios, response times, or other performance objectives.	Phase 1: LTS		Phase 1: LTS
<b>Impact PS-3:</b> The project would not require the provision of new or physically altered schools in order to maintain acceptable service ratios, response times, or other performance objectives.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact PS-4:</b> The project would not require the provision of new or physically altered libraries or other public facilities in order to maintain acceptable service ratios, response times, or other performance objectives.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-PS-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a significant cumulative impact on public services.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Recreation</b>			
<b>Impact REC-1:</b> The project would not require the provision of new or physically altered park facilities in order to maintain acceptable service ratios or other performance objectives.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact REC-2:</b> 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: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact REC-3:</b> 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: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-REC-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified,	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
would not result in a cumulatively considerable contribution to significant cumulative impacts on recreation.			
<b>Transportation and Circulation</b>			
<b>Impact TR-1:</b> The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicyclist, and pedestrian facilities.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact TR-2:</b> The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), or include transportation changes that would result in a net increase in total VMT.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact TR-3A:</b> The project would not increase hazards due to a geometric design feature or incompatible uses.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact TR-3b:</b> The project would not substantially increase hazards due to freeway ramp queuing.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact TR-3c:</b> The project would not substantially increase hazards at at-grade rail crossings.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact TR-3d:</b> The project would contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants. Phase 1 would not contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants.	Project: S Phase 1: LTS	No feasible mitigation measures are available.	Project: SU Phase 1: LTS
<b>Impact TR-4:</b> The project would not have a detrimental impact on emergency access.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact TR-5a:</b> The project would not result in	Project: LTS	None required.	Project: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
substantial delay or overcrowding on transit vehicles.	Phase 1: LTS		Phase 1: LTS
<b>Impact TR-5b:</b> The project would not have a detrimental impact on bicycle or pedestrian facilities.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-TR-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-TR-2:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-TR-3a:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not substantially increase hazards due to a geometric design feature or incompatible uses.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-TR-3b:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not substantially increase hazards due to freeway ramp queuing.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-TR-3c:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not substantially increase hazards at at-grade rail crossings.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-TR-3d:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants.	Project: S Phase 1: LTS	No feasible mitigation measures are available.	Project: SU Phase 1: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact C-TR-4:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not have a detrimental impact on emergency access.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-TR-5A:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not result in substantial delay or overcrowding on transit vehicles.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-TR-5B:</b> The project, inclusive of Phase 1, together with the cumulative projects identified would not have a detrimental impact on bicycle or pedestrian facilities.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Tribal Cultural Resources</b>			
<b>Impact TCR-1:</b> The project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the CRHR or in a local register of historical resources, as defined in PRC Section 5020.1(k), or is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.	Project: S Phase 1: S	Implement <b>Mitigation Measures CR-2a, CR-2b, and CR-3</b> , above.	Project: LTSM Phase 1: LTSM
<b>Impact C-TCR-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on tribal cultural resources.	Project: S Phase 1: S	Implement <b>Mitigation Measures CR-2a, CR-2b, and CR-3</b> , above.	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Utilities and Service Systems</b>			
<b>Impact UTIL-1:</b> The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact UTIL-2:</b> The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Project: S Phase 1: S	<p><b>Mitigation Measure UTIL-1: Limit Total Water Demand under the Specific Plan to 527 AFY (Future Phases)</b></p> <p>If Cal Water has lawfully adopted a Water Neutral Development policy that is applicable to the project at the time a Certificate of Occupancy is requested for projects under the Specific Plan, the applicant(s) shall be required to demonstrate to the satisfaction of Cal Water that the project complies with said policy. Upon demonstrating compliance with said policy, no further action is required. The applicant(s) shall provide the City with documentation of Cal Water's concurrence that the project has complied with said policy.</p> <p>If a Water Neutral Development policy has not been lawfully adopted or is not applicable to the project at the time a Certificate of Occupancy is requested, applicants of future Precise Plans shall prepare an estimate of their individual project's net water demand for the City's review and approval prior to the issuance of the Certificate of Occupancy. The net increase in water demand shall be calculated based on the expected total water use due to the proposed development and/or expansion, minus the amount of existing water use, onsite credits, alternative onsite sources of water supply, and/or offsite credits.</p>	Project: LTSM Phase 1: LTSM

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
		<p>The City shall ensure, through its review of individual projects' demand estimates, that the individual project's net increase in demand does not result in total demand within the Specific Plan area that exceeds 527 AFY. When preparing demand estimates for a future phase(s) of development, applicants shall include Phase 1's net increase in demand based on actual water usage data for Phase 1, if Phase 1 is fully constructed and operational and such data are readily available. If Phase 1 is not fully constructed and operational, or if actual water demand data are not readily available, the applicant shall prepare an estimate of the Phase 1 demand and include it in the estimate of total demand. If the total estimated demand for all projects within the Specific Plan is found to exceed 527 AFY, the City shall withhold issuance of a Certificate of Occupancy for that portion of the project that causes total demand within the Specific Plan area to exceed 527 AFY until the applicant provides evidence that additional water supply is available, or sufficient offsets are provided, to satisfy any additional demand in excess of 527 AFY.</p> <p><b>Mitigation Measure UTIL-2: Implement Measures to Address Projected Dry Year Water Shortages (All Phases)</b></p> <p>If Cal Water has lawfully adopted a Water Neutral Development policy that is applicable to the project at the time a Certificate of Occupancy is requested for projects under the Specific Plan, the applicant(s) shall be required to demonstrate to the satisfaction of Cal Water that the project complies with said policy. Upon demonstrating compliance with said policy, no further action is required. The applicant(s) shall provide the City with documentation of Cal Water's concurrence that the project has complied with said policy.</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
<b>Impact UTIL-3:</b> The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected wastewater treatment demand	Project: LTS Phase 1: LTS	<p>If said policy has not been lawfully adopted or is not applicable to the project at the time a Certificate of Occupancy is requested and the 2018 amendment to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) is not being implemented as adopted due to pending or concluded litigation, rescission, modification through voluntary agreement(s), or other circumstances, no further action is required.</p> <p>If said policy has not been lawfully adopted or is not in effect at the time the Certificate of Occupancy is requested and the Bay-Delta Plan Amendment is being implemented, then if a Shortage Level 1 or greater shortage has been established, as defined under the Cal Water 2020 UWMP Water Shortage Contingency Plan (WSCP) for the South San Francisco District or otherwise applicable WSCP at that time, applicants of projects under the Specific Plan shall comply with applicable requirements under the WSCP. Consistent with the 2020 UWMP-WSCP, coordination with Cal Water District staff will be required to determine the specific range of strategies identified under the WSCP needed to address water shortage levels, including water use restrictions and/or consumption reduction actions applicable to the project (UWMP, Appendix L, Table 5-1). The applicant(s) shall provide the City with documentation of Cal Water's concurrence that the applicant(s) have committed to implement an agreed upon strategy to address water shortage levels in compliance with the requirements of the WSCP.</p>	Project: LTS Phase 1: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
in addition to the provider's existing commitments.			
<b>Impact UTIL-4:</b> The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the project would not fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-UTIL-1:</b> The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on water infrastructure or water supply.	Project: S Phase 1: S	Implement <b>Mitigation Measures UTIL-1 and UTIL-2</b> , above, as applicable to each Precise Plan.	Project: LTSM Phase 1: LTSM
<b>Impact C-UTIL-2:</b> The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on wastewater infrastructure or wastewater treatment capacity.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-UTIL-3:</b> The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on stormwater drainage infrastructure.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-UTIL-4:</b> The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on electricity, natural gas, and telecommunication services facilities.	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS
<b>Impact C-UTIL-5:</b> The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a	Project: LTS Phase 1: LTS	None required.	Project: LTS Phase 1: LTS

Potential Environmental Impacts	Level of Significance before Mitigation	Recommended Mitigation Measures	Level of Significance after Mitigation
significant cumulative impact on solid waste generation or on failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.			
<b>Wildfire (refer to Section 4.18, <i>Impacts Found Not to Be Significant</i>)</b>			
<b>Impact WF-1:</b> The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and would not: a) substantially impair an adopted emergency response plan or emergency evacuation plan; b) exacerbate wildfire risks due to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire; c) require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or d) expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Project: NI Phase 1: NI	None required.	Project: NI Phase 1: NI

## 2.2.1 Alternatives

CEQA Guidelines Section 15126.6 requires an EIR to evaluate the No Project Alternative and a reasonable range of alternatives to the project that would feasibly attain most of the project's basic objectives, but that would also avoid or substantially reduce any identified significant environmental impacts of the project. As summarized in **Table 2-1, p. 2-4**, the project would have significant and unavoidable impacts related to air quality, noise, and transportation and circulation. Phase 1 would have significant and unavoidable impacts related to air quality and noise.

As described in Chapter 5, *Alternatives*, three alternatives are evaluated in this EIR:

- Alternative A—No Project Alternative
- Alternative B—No Intersection Alternative
- Alternative C—Reduced Project Alternative

As also described in Chapter 5, *Alternatives*, six other alternatives were considered by the City but ultimately rejected as infeasible during the scoping and environmental review process. The alternatives evaluated in detail in Chapter 5, *Alternatives*, of this EIR are summarized below.

### 2.2.1.1 Alternative A: No Project Alternative

As required by CEQA Guidelines Section 15126.6(e), Chapter 5, *Alternatives* included evaluation of a “no project” alternative. Under Alternative A—No Project Alternative, the Specific Plan would not be adopted. No new construction would occur in the Specific Plan area or in the off-site improvement areas. Existing land uses would remain unchanged and in their current physical state. No demolition of existing uses would occur, and no new R&D or office uses would be built, nor would any subterranean parking garages. No new streetscape or open space would be constructed. Southline Avenue would not be constructed, nor would any of the offsite improvement associated with the project, including the new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue and the pedestrian, bicycle, and vehicular circulation improvements along Huntington Avenue. Phase 1 would not be built. Existing General Plan land use designations and zoning districts would be maintained on the Specific Plan area. Alternative A would not preclude potential future development at the project site with a range of land uses that are permitted under existing land use policies at the Specific Plan area. Permitted uses under the existing land use designation and zoning include office and R&D uses, and heavier industrial uses to a certain extent, which are limited to essential infrastructure, general services, warehousing, and related uses in order to maintain the economic viability of the area and to provide a range of employment opportunities. Industrial uses that use or produce substantial amounts of hazardous materials or generate noise, odor, or other pollutants are not permitted.

### 2.2.1.2 Alternative B: No Intersection Alternative

Alternative B—No Intersection Alternative would not include the street connection between Southline Avenue/Maple Avenue, and Sneath Lane/Huntington Avenue; instead, the new Southline Avenue would terminate at Maple Avenue. Alternative B would not include the new signalized intersection at the Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue as depicted in Figure 3-21 in Chapter 3, *Project Description*, of this EIR. Under this alternative, Huntington Avenue would not be realigned with Maple Avenue, nor would Sneath Lane be

realigned with Southline Avenue. In addition, Alternative B would not include the pedestrian and bicycle improvements to enhance access to BART and SamTrans facilities and extend the Centennial Way Trail along Huntington Avenue. Alternative B was selected for evaluation based on its potential to reduce impacts related to construction air quality, construction TACs, and construction noise, and to address comments raised by the City of San Bruno during the scoping process regarding the relative impacts of constructing, or not constructing, the intersection improvements.

Within the Specific Plan area, Alternative B would construct the same land use program for both Phase 1 and the proposed project. The same Specific Plan and zoning designations would apply to this alternative, which allow for development at a FAR of up to 2.5 within the Specific Plan area with incorporation of Transportation Demand Management (TDM), structured parking, off-site improvement, or specific design standards. In addition, the building design under Alternative B would be the same in height, square footage, bulk, architecture, and materials as the proposed project and would similarly be designed to achieve a minimum LEED version 4 silver rating. Alternative B would include the same design features that support VMT reduction as the proposed project, including the TDM plan, shuttle service to the Caltrain stations, carpooling and vanpooling services, and the installation of electric vehicle charging stations and bicycle parking within the project site. Alternative B would implement the same sustainability features, such as water-efficient devices, water-efficient landscaping, energy-efficient HVAC systems and equipment, all-electric energy sources to the extent feasible, and on-site recycling and composting facilities. Alternative B would provide the same open spaces and pedestrian connections within the Specific Plan area as the project.

Utility improvements associated with Alternative B would be similar to those described for the proposed project. The project site is serviced by existing potable water, stormwater, sanitary sewer, natural gas, electric, and trash recycling services. New on-site facilities would be connected to new services through the installation of new, localized connections. Expansions or an increase in capacity of off-site infrastructure would occur as required by the utility providers. With the exception of the Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue intersection and related storm drain improvements, and the Huntington Avenue pedestrian and bicycle improvements, Alternative B would construct the same off-site improvements as the proposed project, including the circulation and utility improvements in Tanforan Avenue; the circulation, intersection, and utility improvements at Southline Avenue/South Linden Avenue/Dollar Avenue; and the circulation and utility improvements along Maple Avenue.

Overall, construction activities for Alternative B would be similar to the proposed project but slightly reduced in terms of timeline and total activity since no construction activity would occur along Huntington Avenue. Alternative B would require less ground disturbance and slightly less excavation than the proposed project. Construction and demolition activities within the Specific Plan area would be the same as the proposed project.

With regard to anticipated approvals, like the proposed project, Alternative B would require Specific Plan adoption, general plan amendments, zoning map and text amendments, TDM program approval, design review, development agreement, and precise plan(s) approval. Alternative B would also require standard City engineering, building, fire, and protected tree removal permits). Since Alternative B would not include any construction within San Bruno or BART jurisdictions, approvals from those agencies would not be required.

### 2.2.1.3 Alternative C: Reduced Project Alternative

Alternative C—Reduced Project Alternative would reduce maximum building heights to 80 feet or four to five stories in accordance with the 80-foot maximum building height per the City's General Plan Special Area Height Limitations (General Plan Figure 2-3) and BPO zoning district development standards, in comparison to the maximum heights that would be allowed under the proposed project of approximately 120-feet (depending on the specific site elevations across the Specific plan area), as governed by maximum height allowances under FAA Part 77 regulations and San Francisco International Airport ALUCP. The amount of net new development would be reduced to approximately 1,404,880 square feet compared to 2,800,000 square feet under the proposed project. Alternative C was selected for evaluated based on its ability to reduce impacts related to construction air quality, construction TACs, construction noise, and signal warrants.

Alternative C would not change the permitted uses that would be allowed to occur under the project or the footprint of proposed buildings, however, it would change the intensity at which they would occur due to the reduced height limit of 80 feet or four to five stories. Phase 1 would still include the construction of Buildings 1 and 7, and the amenities building (Building 2). However, Phase 1, under Alternative C, would involve approximately 449,760 square feet of new R&D or office uses, instead of 700,915 square feet of new uses as proposed under the project. Under Alternative C, Phase 1 would include the same amount of amenity building parking spaces proposed under the project, but would only have one level of below-grade parking under the three buildings on the Phase 1 site instead of two levels of below-grade parking under the proposed project. Furthermore, under Alternative C, the above-ground parking garage would be constructed in future phases of the project, rather than Phase 1. Phase 1 under Alternative C would provide approximately 669 total parking spaces in comparison to 1,379 total parking spaces that would be provided in Phase 1 under the proposed project.

Under Alternative C, future phases of the project would be allowed to develop up to approximately 955,120 square feet of new office or R&D uses, in comparison to the up to 2,800,000 square feet of uses that would be developed under the proposed project (Office Scenario). In addition, unlike the proposed project, Alternative C would not include any below-grade parking levels in any of the future phases. As explained above, the parking garage would be constructed in future phases of Alternative C, and also would not include any below-grade parking levels. Overall, even though reduced amounts of development would occur under Alternative C, the total lot coverage, and amount of pervious and impervious surfaces would be the same as under the proposed project.

All other features of Alternative C would be the same as, or substantially similar to, those of the proposed project, including the potential office or R&D use, the proposed circulation and infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features.

The construction activities for Alternative C would be similar to the proposed project, however, there would be a few key differences. The construction schedule for Alternative C may be substantially shorter than the proposed project, and construction of the parking garage would be included in future phases of project buildout rather than Phase 1. In addition, Alternative C would require substantially less ground disturbance overall compared to the proposed project since subterranean parking would not be provided in any of the future phases. Furthermore, parking provided in Phase 1 under Alternative C would only include one level of below-grade parking,

instead of two levels of below-grade parking as proposed with the project. Overall, Alternative C would result in a substantially reduced construction program.

As for the anticipated approvals, Alternative C would still require Specific Plan adoption, general plan amendments, zoning map and text amendments, TDM plan approval, design review, development agreement, and precise plan(s) approval. Alternative B would also require standard City engineering, building, fire, protected tree removal permits, along with other agency approvals (e.g., City of San Bruno, BART, Bay Area Regional Water Quality Control Board, BAAQMD, City/County Association of Governments Airport Land Use Commission, and Federal Aviation Administration).

## 2.2.2 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires identification of an environmentally superior alternative (i.e., the alternative that has the fewest significant environmental impacts) from among the other alternatives evaluated if the proposed project has significant impacts that cannot be mitigated to a less-than-significant level. If the No Project Alternative (i.e., Alternative A) is found to be the environmentally superior alternative, the EIR must identify an environmentally superior alternative among the other alternatives.

As evaluated in Chapter 5, *Alternatives*, of this EIR, Alternative B, No Intersection Alternative, would not avoid any of the significant and unavoidable impacts of the proposed project or Phase 1. In fact, Impact AQ-2b, C-AQ-2, TR-3d, and C-TR-3d would be increased in severity under this alternative. Furthermore, the alternative would result in two new significant impacts, Impact TR-3b, Freeway Queueing, and Impact TR-5b, Crowding at Pedestrian and Bicycle Facilities, that would not occur under the proposed project. Therefore, Alternative B is not the environmentally superior alternative.

Alternative C, Reduced Project Alternative, would reduce, but would not avoid, all of the project's significant and unavoidable impacts. Alternative C also would not result in any new significant and unavoidable impacts. Therefore, Alternative C is the environmentally superior alternative.

## 2.2.3 Areas of Known Controversy and Issues to Be Resolved

The City of South San Francisco Planning Division of the Economic and Community Development Department (Planning Division), issued a Notice of Preparation (NOP) of an EIR for the proposed Southline Specific Plan project on May 22, 2020, in compliance with Title 14, Sections 15082(a), 15103, and 15375 of the California Code of Regulations. The NOP review period commenced on May 22, 2020, and concluded on July 6, 2020, and a scoping meeting was held on June 11, 2020. One commenter submitted questions at the meeting. The Planning Division received ten comment letters from public agencies and interested parties during the public review and comment period. The Planning Division has considered the comments made by the public in preparation of the EIR for the proposed project. A copy of the NOP and all comments received on the NOP are provided in **Appendix 1**. Based on the comments received during the scoping process, areas of known controversy and issues to be resolved include:

- Traffic congestion and parking, including effects on intersections in the City of San Bruno;
- Safety impacts on pedestrians and bicyclists, including impacts around the BART station;

- Construction impacts on sensitive receptors, including impacts from air emissions, dust, and noise;
- Potential impacts to nesting birds and roosting bats;
- Greenhouse gas emissions;
- Shading impacts on residential uses to the south;<sup>3</sup> and
- Public utility capacity, including the project's contribution to the City of San Bruno's utilities and service systems.

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<sup>3</sup> Per Public Resources Code Section 21099, the City is not required to evaluate the alteration of shadow patterns (an aesthetic impact) for CEQA purposes. Notwithstanding, for informational purposes and in response to the scoping comment, a shadow study was conducted for the proposed project and is included in **Appendix 4.18-1**. Refer to Section 4.18, *Impacts Found Not to Be Significant*, for a discussion of the shadow study.

### 3.1 Overview

This chapter describes the location, key characteristics, and objectives of the proposed project, which comprises buildout allowed under the proposed Southline Specific Plan (Specific Plan) and associated off-site improvements. The required approvals for the proposed project and the intended uses of this environmental impact report (EIR) are also described. The proposed project would redevelop a 26.5-acre<sup>1</sup> industrial site (Specific Plan area) in the City of South San Francisco (City), located in proximity to the San Bruno Bay Area Rapid Transit (BART) station. The proposed project would also construct off-site transportation, circulation, and infrastructure improvements at several locations outside the Specific Plan area, some of which are located within the City of San Bruno (off-site improvement areas), totaling approximately 6.4 acres. Together, the Specific Plan area and the off-site improvements are referred to as the proposed project, and these combined areas compose the project site, totaling approximately 33 acres (project site).

Within the 26.5-acre Specific Plan area, the proposed project would demolish all existing on-site uses and construct a transit-oriented office/research and development (R&D) campus with a maximum anticipated building area of 2,800,000 square feet. New development would include commercial office/R&D buildings; a four-story supportive amenities building (referred to as Building 2<sup>2</sup>) totaling approximately 88,200 square feet; approximately 3,064 underground parking spaces at various locations throughout the Specific Plan area; a nine-story parking structure with approximately 2,705 spaces (referred to as Parking Structure C); a new east-west connection road referred to as Southline Avenue (provisionally named for the purpose of the Specific Plan and California Environmental Quality Act (CEQA) review); supportive utilities and related infrastructure, and up to 341,800 square feet (7.8 acres) of open space. Commercial building heights would range from four to seven stories, subject to maximum height limits in accordance with Federal Aviation Administration (FAA) and Airport Land Use Compatibility Plan (ALUCP) requirements for San Francisco International Airport (SFO).

Additionally, off-site improvements would be constructed to support development within the Specific Plan area. These include the following improvements within the City of South San Francisco:

- reconfiguration of the South Linden Avenue and Dollar Avenue intersection;
- reconfiguration of the existing at-grade rail crossing at South Linden Avenue;
- roadway widening of and street front improvements on South Maple Avenue; and
- signalization of intersections at the main Southline campus entry point at Southline Avenue, mid-block at Southline Avenue, and at Southline Avenue and Dollar/Linden avenues.

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<sup>1</sup> Except as otherwise noted, all references to acreage, square footage, and other measurements are approximate.

<sup>2</sup> Building names and building number references (e.g., Amenities Building, Building 1, Parking Structure C) refer to the conceptual site plans shown in **Figure 3-7** and **Figure 3-8** in this Chapter 3, *Project Description*.

The off-site improvements also include the following improvements located within the City of San Bruno, which are subject to separate application, review, and approval requirements from the City of San Bruno and/or BART, for facilities within its jurisdiction:

- new signalized intersection, reconfiguring Huntington Avenue, connecting it to the new Southline Avenue, and providing for improved adjacent bicycle and pedestrian facilities;
- reconfiguration of Tanforan Avenue to create a cul-de-sac limiting through traffic; and
- a new dedicated, signalized northbound left turn lane on Huntington Avenue providing a new entrance into the transit center for SamTrans buses.

The proposed project would also remove, install, or relocate several utilities (aboveground and underground), sidewalks, curbs, and streetscape improvements within the cities of South San Francisco and San Bruno, and within BART jurisdiction.

Development associated with the proposed project would be implemented under the proposed Specific Plan, which would establish new land use development standards and design guidelines for the future development within the Specific Plan area. This chapter summarizes the policies, development standards, and design guidelines set forth in the Specific Plan that would regulate development within the Specific Plan area. The information presented and described in this chapter focuses on aspects of the Specific Plan that are pertinent to the evaluation of the proposed project's potential effects on (i.e., changes to) the physical environment.

**Program-Level Analysis:** Based on the development standards established in the Specific Plan, this chapter describes two buildout scenarios that represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario. The buildout scenarios are the basis of the program-level environmental impact analysis presented in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR. For the program-level analysis, each section in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyzes the buildout scenario – i.e., either the Office Scenario or the Life Sciences Scenario – which is the “worst-case” scenario for the resource area being analyzed, as further described in Section 4.01, *Approach to Environmental Analysis*. A phased development process for buildout of the Specific Plan is anticipated, which is reflected in both the Office Scenario and the Life Sciences Scenario analyses.

**Project-Level Analysis:** Implementation of the Specific Plan would require project-level proposals to be presented to the City of South San Francisco through a Precise Plan review process established under the Specific Plan; all Precise Plan proposals would be evaluated for consistency with the Specific Plan by the City. The project applicant has submitted a Precise Plan proposal to the City for the first phase of development within the Specific Plan area (Phase 1). Under the Precise Plan proposal, Phase 1 would include construction of the new Southline Avenue east-west connection road and the following development, generally located south of the new road:

- two new office buildings (Buildings 1 and 7), with a total building area of up to 612,715 square feet;
- the four-story, 88,200-square foot amenities building (Building 2);
- up to approximately 2,664 parking spaces in a combination of below-grade parking and the eastern portion of the nine-story parking structure located north of the new Southline Avenue (Parking Structure C);

- landscaping and open space amenities; and
- all of the proposed on-site and off-site infrastructure, roadway, and pedestrian improvements within the off-site improvement areas except for the roadway widening, street front improvements, and sewer main upgrades in Maple Avenue.

In total, Phase 1 construction would occur on 11.93 acres within the Specific Plan area and 5.03 acres within the off-site improvements areas, totaling 16.96 acres (Phase 1 site). This chapter provides a detailed description of Phase 1, which is evaluated at a project level in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR.

### 3.1.1 Project Applicant

The project applicant is Lane Partners. The applicant contact person is:

Marcus Gilmour, Principal  
Lane Partners  
644 Menlo Park Avenue, Second Floor  
Menlo Park, CA 94025  
(650) 838-0100  
marcus@lane-partners.com

### 3.1.2 Lead Agency

The CEQA lead agency for the proposed project is the City of South San Francisco. The lead agency contact person is:

Adena Friedman, Principal Planner  
City of South San Francisco  
Economic and Community Development Department  
P.O. Box 711  
South San Francisco, CA 94083  
(650) 877-8535  
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## 3.2 Project Location

The approximately 26.5-acre Specific Plan area is in the City of South San Francisco. The City is south of the City of Brisbane and north of the City of San Bruno. The City is built on the bay plain and the northern foothills of the Coastal Range. The City is located along major transportation routes, including U.S. 101, Interstate (I) 380, I-280, BART tracks, and the Union Pacific Railroad (UPRR) tracks, which are also used by Caltrain. **Figure 3-1, p. 3-47**, shows the location of the Specific Plan area and the regional vicinity.

The Specific Plan area is at the intersection of South Maple Avenue and Tanforan Avenue, adjacent to the City of San Bruno. The Specific Plan area is approximately 0.1 mile from the San Bruno BART station and the co-located SamTrans Transit Center, approximately 0.75 mile from the San Bruno Caltrain station, and approximately 1.5 miles from the South San Francisco Caltrain station. The Specific Plan area encompasses seven parcels, including Assessor's Parcel Numbers (APNs) 014-250-090, 014-250-080, 014-250-050, 014-241-030, 014-241-040, 014-232-030, and 014-232-050.

The Specific Plan area is within the Lindenville Planning Sub-Area, as described in the 1999 *South San Francisco General Plan* (General Plan). As shown in **Figure 3-2, p. 3-48**, the off-site improvement areas are located within the Cities of South San Francisco and San Bruno, generally adjacent to the Specific Plan area to the west, south, and east. Together, the approximately 26.5-acre Specific Plan area and the approximately 6.4-acre off-site improvement areas comprise the total approximately 33-acre project site.

## 3.3 Existing Setting

### 3.3.1 Regional Setting

The City of South San Francisco encompasses approximately 4,298 acres and is largely composed of single-use areas, with industry in the eastern and southeastern portions of the City and single-family homes to the north and west. Much of the City is already urbanized, and the amount of vacant land is limited. Growth in the City typically occurs mostly in the form of redevelopment and intensification.

### 3.3.2 Surrounding Land Uses and Circulation

As shown in **Figure 3-2, p. 3-48**, land uses surrounding the project site include the commercial, industrial, and warehouse facilities north and east of the Specific Plan area within the City of South San Francisco. To the south of the project site are predominantly single-family residences, and to the west are the San Bruno BART station, the Shops at Tanforan, and San Bruno Towne Center, all of which are located in the City of San Bruno. The Centennial Way Trail, a Class I multi-use path, runs generally parallel to Maple Avenue west of the Specific Plan area, in addition to bicycle lanes along Sneath Avenue.

The San Bruno Caltrain station is approximately 0.75 mile south of the project site, and the South San Francisco Caltrain station is approximately 1.5 miles to the north. Existing circulation routes surrounding the Specific Plan area include South Maple Avenue, Huntington Avenue, Tanforan Avenue, Dollar Avenue, and South Linden Avenue. The Specific Plan area is approximately 0.1 mile from the SamTrans Transit Center at the San Bruno BART station, which provides bus service to a range of destinations in San Mateo County. The project site is served by six freeway interchanges within a radius of 1.5 miles, including I-380/El Camino Real, U.S. 101/Grand Avenue, U.S. 101/Produce Avenue/South Airport Boulevard, U.S. 101/San Bruno Avenue, I-280/Sneath Lane, and I-280/San Bruno Avenue. SFO is approximately 1.1 mile to the southeast.

### 3.3.3 Site Setting

The existing uses within the Specific Plan area include a variety of occupied and unoccupied office, industrial, warehouse, and storage facilities that were largely constructed in the 1940s and 1950s. The existing structures within the Specific Plan area include 15 buildings and/or structures totaling approximately 344,000 square feet. Surface parking lots containing approximately 380 parking spaces and storage areas are interspersed among the buildings. The Specific Plan area currently lacks internal circulation; there are no routes through the site from South Maple Avenue on the west to South Linden Avenue on the east. A site plan of the existing conditions is shown in **Figure 3-3, p. 3-49**.

The topography of the project site and surrounding vicinity is relatively flat, with a slight slope downward toward the northeast. The project site elevation ranges from approximately 17 to 33.25 feet (NAVD 88)<sup>3</sup> above mean sea level (MSL). As discussed in Section 4.6, *Geology and Soils*, of this EIR, the project site is underlain by native soils and artificial fill. Artificial fill generally underlies the project site to a depth of 2–5 feet below ground surface (bgs), except at 50–54 Tanforan Avenue, where artificial fill was measured to a depth of 22 feet. The depth to groundwater at the project site ranges from approximately 8 to 27 feet bgs.<sup>4</sup> The Specific Plan area has a history of contamination related to its use over the years for various industrial, warehouse, and storage facilities uses; a series of recent environmental investigations have been conducted to evaluate the subsurface conditions within the Specific Plan area. These investigations are summarized in Section 4.8, *Hazards and Hazardous Materials*, of this EIR and provided in **Appendix 4.8-1**.

The Specific Plan area contains some ornamental landscaping and approximately 162 trees, including two protected trees.<sup>5,6</sup> Of the 162 trees, 80 are located on the Phase 1 site (not including the two protected trees, which are located in future phase areas). The off-site improvement areas contain additional ornamental landscaping and approximately 19 trees, with four trees near the intersection of South Linden Avenue and Dollar Avenue in the City of South San Francisco, and 15 trees near the proposed Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue intersection in the cities of South San Francisco and San Bruno.<sup>7</sup> The Specific Plan area is served by existing utility infrastructure owned and maintained by the City (sanitary sewer and stormwater), the California Water Service Company (Cal Water) (water), and Pacific Gas and Electric (PG&E) (natural gas and electricity).

The Specific Plan area encompasses seven parcels, including APNs 014-250-090, 014-250-080, 014-250-050, 014-241-030, 014-241-040, 014-232-030, and 014-232-050. The existing parcel size, address, land use, and building size for the seven parcels within the Specific Plan area are described in **Table 3-1, p. 3-6**.

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<sup>3</sup> The North American Vertical Datum of 1988 (NAVD 88) is the vertical control datum established in 1991 by the minimum-constraint adjustment of the Canadian-Mexican-United States leveling observations. It held fixed the height of the primary tidal bench mark, referenced to the new International Great Lakes Datum of 1985 local mean sea level height value, at Father Point/Rimouski, Quebec, Canada.

<sup>4</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>5</sup> Urban Tree Management. 2020. *Tree Inventory of Southline, South San Francisco, CA 94080*. May 13.

<sup>6</sup> City of South San Francisco. n.d. *South San Francisco Municipal Code*. Chapter 13.30, Tree Preservation. Available: [http://www.qcode.us/codes/southsanfrancisco/?view=desktop&topic=13-13\\_30-13\\_30\\_080](http://www.qcode.us/codes/southsanfrancisco/?view=desktop&topic=13-13_30-13_30_080). Accessed: January 25, 2021.

<sup>7</sup> Aerial and street view imagery from Google Earth was used to approximate the number of trees in the off-site improvement areas.

**Table 3-1. Existing Building Summary**

APN	Parcel Size (sf)	Address	Use Type	Year Built	Building Size (sf)	Building Height (stories)	Yard Size (sf)
014-250-090	317,988	30 Tanforan Ave.*	Administrative Office	1963	6,300	1	N/A
		40 Tanforan Ave.*	Industrial Warehouse	c. 1956	42,000	1	172,000
		347 S. Maple Ave.	Industrial Warehouse	c. 1965	4,500	1	N/A
		349 S. Maple Ave.	Industrial Warehouse	1959	9,500	1	61,000
014-250-080	74,152	50 Tanforan Ave.*	Industrial Warehouse	1959	34,000	1	32,000
014-250-050	129,983	54 Tanforan Ave.*	Industrial Warehouse	c. 1943	26,000	2	130,000
014-241-030	163,176	240 Dollar Ave.*	Industrial Factory	c. 1943/1956/1965	60,000	1	55,000
		180 S. Linden Ave.*	Industrial Warehouse	1956/1982	7,500	1	40,000
014-241-040	231,216	160 S. Linden Ave.*	Chemical Plant	1940/1958	60,000 <sup>b</sup>	3	105,000
		160 S. Linden Ave.*	Ancillary building	c. 1940		1	
		180 S. Linden Ave.*	Tour bus barn (repair show)	c. 2012		1	
		180 S. Linden Ave.*	Tour bus barn (bus wash)	c. 2012		1	
014-232-030	219,610	315 S. Maple Ave.	Industrial Warehouse	1995	19,000	1	N/A
		319 S. Maple Ave.	Industrial Warehouse	1996	20,000	1	N/A
		325 S. Maple Ave.	Industrial Warehouse	1946/ 1957	55,000	1	N/A
<b>Total</b>	<b>1,154,736 (approximately 26.5 acres)<sup>a</sup></b>				<b>343,800</b>		<b>595,000</b>

Source: Lane Partners, 2020.

Notes:

<sup>a</sup> Includes 18,611-square foot APN 014-232-050, which does not contain any buildings.<sup>b</sup> Includes ancillary structures.

sf = square feet

\* Property addresses marked with an asterisk symbol are located partially or fully within the Phase 1 site.

### 3.3.3.1 Existing Land Use and Zoning Designations

**Figures 3-4 and 3-5, pp. 3-50 and 3-51**, illustrate the existing General Plan land use and zoning designations of the Specific Plan area and surrounding area, respectively.

#### General Plan Designation

Nearly all of the Specific Plan area (approximately 26.2 acres) is designated under the City's General Plan as Office, a designation intended to provide sites for administrative, financial, business, professional, medical, and public offices in locations proximate to BART or Caltrain stations. The maximum base permitted floor area ratio (FAR) in the Office designation is 1.0, but increases may be permitted up to a total FAR of 2.5 for development meeting specific criteria, including Transportation Demand Management (TDM), structured parking, off-site improvement, or specific design standards. A small, approximately 0.3-acre portion of the Specific Plan area is designated under the General Plan and zoned as Parks and Recreation; this area is a linear strip that runs in a southwest–northeast direction, corresponding with a former rail easement. General Plan Figure 2-2 (Airport-Related Height Limitations) indicates that the Specific Plan area is located within an area subject to a height limit of 161 feet per ALUCP requirements; however, Figure 2-3 (Special Area Height Limitation) further indicates that all or a large portion of the Specific Plan area is located in an area subject to a height limit of 80 feet, implemented through the City's General Plan and Zoning Ordinance. The General Plan also proposes a new street extension that crosses the Specific Plan area between South Linden and South Maple Avenues, extending to Sneath Lane, which is intended to provide a connection between downtown South San Francisco and the San Bruno BART station, provide vehicle and truck access to I-380, and increase overall access to the Lindenville Planning Sub-Area, described below.

The General Plan is currently being updated as part of the *Shape SSF 2040 General Plan*.<sup>8</sup> The General Plan remains active until completion and adoption of the new general plan. The *Shape SSF 2040 General Plan* preferred land use alternative, which will ultimately serve as the basis for the updated *Shape SSF 2040 General Plan* and related Land Use Element, maintains the existing land use designation for the bulk of the Specific Plan area, although it renames the designation from Office to Business and Professional Office.<sup>9</sup> The *Shape SSF 2040 General Plan* preferred land use alternative maintains the proposed new street extension that crosses the Specific Plan area between South Linden and South Maple Avenues. The City anticipates that any General Plan amendments required for implementation of the proposed project, as further described below in Section 3.7, *Required Governmental Approvals*, will be reflected in the *Shape SSF 2040 General Plan*.

#### Lindenville Planning Sub-Area

The Planning Sub-Areas Element of the General Plan identifies the Specific Plan area as being located within the Lindenville Planning Sub-Area, which, according to the General Plan, is the only large-scale industrial area in the City west of U.S. 101. The area comprises a range of commercial uses, including small business parks. The Planning Sub-Areas Element does not impose density or height standards separate from those standards found in the General Plan's Land Use Element. The

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<sup>8</sup> City of South San Francisco. 2020. *Shape SSF 2040 General Plan, Preferred Land Use Alternative*. Available: <https://shapessf.com/>. Accessed: October 18, 2020.

<sup>9</sup> City of South San Francisco, *Shape SSF Preferred Alternative*. Available: <https://shapessf.com/preferredalternative/>. Accessed: January 4, 2021.

Lindenville Planning Sub-Area is an area that the City has identified as needing “upgrading and rehabilitation.”<sup>10</sup> Access to the area is constrained, and often trucks have to negotiate downtown streets to access U.S. 101 at the Grand Avenue intersection, creating bottlenecks at major entryways to the city of South San Francisco. The General Plan indicates that the Lindenville Planning Sub-Area’s proximity to the San Bruno BART station will provide opportunities for redevelopment. To that end, the General Plan includes a number of policies that encourage redevelopment and infrastructure improvements in the Lindenville Planning Sub-Area, such as providing better connectivity to the San Bruno BART station, including an extension of South Linden Avenue through the Specific Plan area; enhancing the appearance of the area by undertaking streetscape and other improvements; improving the buffering between industrial areas in the Lindenville Planning Sub-Area and surrounding residential neighborhoods; and encouraging new office development in areas designated for that use.

## Zoning

The South San Francisco Zoning Ordinance (Zoning Ordinance), Title 20 of the South San Francisco Municipal Code, is the primary document that implements the General Plan. The Zoning Ordinance provides regulations regarding permitted land uses, development regulations, and development processes for land within the City. The majority of the Specific Plan area (approximately 26.2 acres), which corresponds with the Office land use designation under the General Plan, is zoned Business and Professional Office under the Zoning Ordinance. This zoning district, which implements the General Plan’s Office designation, is intended to provide sites for development for a range of commercial uses at locations close to BART or Caltrain stations, such as administrative, financial, business, professional, medical, and public offices; research and development; and supportive amenity uses. Retail uses are limited to business services, food service, and convenience goods for those who work in the area. New residential uses, including group residential facilities, are not permitted, but live/work uses are allowed. The maximum base FAR for administrative, financial, and other office uses is typically 1.0, but increases up to a maximum FAR of 2.5 may be permitted for development that meets specific transportation demand management, off-site improvement, or design requirements or criteria. Outside of the East of 101 Area, building heights in the Business and Professional Office zoning district may not exceed 80 feet. The small 0.3-acre linear portion of the Specific Plan area that was the location of a former rail easement, and corresponding with the Parks and Recreation land use designation, is also zoned Parks and Recreation.

### 3.3.3.2 Existing Utilities

The Specific Plan area is served by existing storm drainage systems, sanitary sewer conveyance systems, and wastewater treatment infrastructure, all of which is owned, operated, and maintained by the City. Potable water infrastructure is owned, operated, and maintained by Cal Water. Electric and gas service is provided by PG&E. Existing dry utilities (power, phone, cable, and natural gas) are also in place in the Specific Plan area and surrounding roads. Existing water, sewer, storm drainage, electrical, gas, and communications utilities are located in public utility easements throughout and adjacent to the Specific Plan area. The Specific Plan area is not located in an area supplied with recycled water because the South San Francisco district does not have an existing or planned recycled water distribution system in place. Refer to Section 4.17, *Utilities and Service Systems*, of this EIR for a detailed discussion of exiting utility infrastructure that serves the Specific Plan area.

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<sup>10</sup> City of South San Francisco General Plan, p. 3-14. 1999.

## 3.4 Intended Uses of the EIR

This section provides a brief overview of the purpose and intended uses of this EIR. Refer also to Section 1.2 in Chapter 1, *Introduction*, of this EIR. As discussed in Chapter 1, this a combined program-level and project-level EIR that provides a program-level evaluation of the Specific Plan and a project-level evaluation of Phase 1, including off-site improvements included in Phase 1.

### 3.4.1 Program-Level Analysis

Buildout under the proposed Specific Plan is evaluated at a program level in this EIR under an Office Scenario and a Life Sciences Scenario, as described in Section 3.6.2.2, p. 3-14. CEQA Guidelines Section 15168 establishes the use of program EIRs for review of 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 may 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. The City anticipates utilizing such a written checklist or similar device when evaluating future Precise Plan submittals processed under the Specific Plan and/or for implementation of related off-site improvements.

#### 3.4.1.1 Subsequent Activities Not Previously Examined

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 that 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; and
- 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 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 on impacts not previously studied under the program EIR. This subsequent or supplemental CEQA document would 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 needed, a subsequent or supplemental CEQA document related to this EIR would focus on the newly proposed action. It would update the prior EIR as needed to disclose the new or more severe impacts that could result from the later action. Depending on circumstances, the CEQA document may be in the form of a new subsequent EIR, a less extensive supplemental EIR, or a subsequent mitigated negative declaration. Alternatively, an addendum under CEQA Guidelines

Section 15164 may be prepared if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for subsequent environmental review have occurred.

### 3.4.1.2 Additional Streamlining Opportunities

#### CEQA Guidelines Sections 15182 and 15183

Pursuant to Public Resources Code Section 21155.4 and CEQA Guidelines Section 15182, future projects that meet the following criteria qualify for a statutory exemption from CEQA:

1. The project is a qualifying residential, employment center, 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 0.5 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 (Public Resources Code Section 21099(a)(7)). As shown in **Figure 3-6, p. 3-52**, the Specific Plan area is within a designated TPA. Furthermore, Public Resources Code Section 21099(a)(1) defines an employment center project 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.” Thus, future projects under the Specific Plan may qualify for this exemption.

In addition, CEQA Guidelines Section 15183 allows for a streamlined environmental review process for projects that are consistent with the densities established by existing zoning, community plan, or general plan policies for which an EIR was certified. To be eligible for streamlined review under CEQA Guidelines Section 15183, the following findings must be made based on an initial study or other analysis:

1. The project is consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified.
2. There are no project specific effects which are peculiar to the project or its site.
3. There are no project specific impacts which the prior EIR failed to analyze as significant effects.
4. There are no potentially significant off-site and/or cumulative impacts which the prior EIR failed to evaluate.
5. There is no substantial new information which results in more severe impacts than anticipated by the prior EIR.

As discussed in Section 3.6.2.4 and Section 3.7, the proposed project would establish a new zoning district unique to the proposed Specific Plan area, referred to as the Southline Campus District (S-C District), the impacts of which are evaluated in this EIR. Therefore, future projects under the Specific Plan may qualify for streamlined environmental review under CEQA Guidelines Section 15183.

This EIR will provide environmental clearance for the required project approvals listed below in Section 3.7. The City, or responsible agencies, as applicable, will review future projects for their

conformance with the criteria discussed above and 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, whether the project qualifies for a statutory exemption pursuant to CEQA Guidelines Section 15182 (Public Resources Code Section 21155.4), or whether the project qualifies for streamlined environmental review pursuant to CEQA Guidelines Section 15183).

### 3.4.2 Project-Level Analysis

Pursuant to CEQA Guidelines Section 15161, this EIR also provides project-level CEQA analysis for development of Phase 1, the first Precise Plan proposed under the Specific Plan. As previously stated, Phase 1 includes all of the off-site improvements except for the roadway widening, streetfront improvements, and sewer main upgrades in Maple Avenue. A project EIR is defined as an EIR that examines the physical environmental impacts of a specific development project. Phase 1 is evaluated at a detailed project level in this EIR and, as such, would not be subject to future environmental analysis unless required by CEQA Guidelines Section 15162 (Public Resources Code Section 21166).

## 3.5 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 proposed project is to create a state-of-the-art, transit-oriented commercial campus, including professional offices, R&D (including life science) uses, and supporting amenities (e.g., retail, fitness, restaurants, etc.) in proximity to BART and Caltrain stations. Other objectives of the proposed project include the following:

- Create a commercial campus development consistent with the General Plan designation for the Specific Plan area.
- Promote the City's ongoing development of its transit-accessible corridors with high-quality development.
- Establish a commercial campus development with sophisticated, unified architectural and landscape design and site planning, resulting in a distinctive campus identity and strong sense of place.
- Allow for well-designed, flexible buildings and floor plates that can accommodate a variety of commercial building uses over time to ensure that the Specific Plan is responsive to market conditions and demands.
- Establish flexibility to build the proposed project in phases that respond to market conditions.
- Redevelop underutilized parcels within the Specific Plan area to realize the highest and best use of the land by increasing the intensity of the land uses.
- Provide a positive fiscal impact on the local economy through the creation of jobs, enhancement of property values, and generation of property tax and other development fees.
- Provide well-designed retail and publicly available open spaces to increase local participation and usage of the Specific Plan area.

- Create new publicly accessible open spaces, including plazas, courtyards, and green spaces within the Specific Plan area.
- Provide an extensive pedestrian network that links buildings and outdoor recreational spaces through paving, wayfinding signage, street furniture, and lighting.
- Promote alternatives to automobile transportation to further the City's transportation objectives by emphasizing public transit linkages, TDM, and pedestrian access and ease of movement between buildings.
- Create convenient and safe pedestrian and bike access from the Specific Plan area to the San Bruno BART station and the Centennial Way Trail.
- Construct a new east-west public street through the Specific Plan area to improve site access and regional roadway circulation, in furtherance of City General Plan policies.
- Enhance vehicular, bicycle, and pedestrian circulation and access in the area surrounding the Specific Plan area.
- Work cooperatively with relevant agencies to implement off-site improvements compatible with planned regional circulation and safety improvements.
- Design roadways within and adjacent to the Specific Plan area to ensure that all police, fire, and emergency medical service vehicles can safely and efficiently navigate.
- Incorporate sustainable and environmentally sensitive design and equipment, energy conservation features, water conservation measures and drought-tolerant or equivalent landscaping, and sustainable stormwater management features.

## 3.6 Description of the Proposed Project

The proposed project would develop a commercial campus with up to 2,800,000 square feet and infrastructure improvements under the policy guidance and regulatory authority of the proposed Specific Plan, in addition to off-site transportation and circulation improvements. The Specific Plan is a regulatory document that would serve as the applicable zoning for all properties within the Specific Plan area. It would permit and govern the orderly development of the proposed project. The Specific Plan defines a unique zoning district – the Southline Campus (S-C) District – for the Specific Plan area and establishes development standards, allowed land uses, circulation and mobility guidelines, design guidelines, infrastructure improvement guidelines, and implementation procedures for future development. When subsequent project-level proposals under the Specific Plan are presented to the City through the Precise Plan review process, those proposals will be evaluated for consistency with the Specific Plan by the City.

This section describes the components of the Specific Plan and other features of the proposed project pertinent to the assessment of the proposed project's potential effects on the environment. This section also describes two reasonably foreseeable buildout scenarios that could occur under the Specific Plan and are the basis of the program-level environmental impact analysis presented in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR as well as Phase 1 of the proposed project, which is evaluated at a project level in Chapter 4. This section also describes the approvals that would be required to implement the proposed project, including approvals specific to Phase 1.

### 3.6.1 Specific Plan Organization

The draft Specific Plan, which is included in **Appendix 2** of this EIR, is organized per the following chapters:

- **Chapter 1: Introduction.** This chapter describes the Specific Plan's organization, regional setting, authority, purpose and intent, and the objectives that would be used to guide future development within the Specific Plan area.
- **Chapter 2: Land Use Plan and Development Standards.** This chapter illustrates the land use plan for the Specific Plan area and defines the Southline Campus (S-C) land use district unique to the Specific Plan area. This chapter also describes the permitted, conditionally permitted, and prohibited land uses and development standards applicable to the Specific Plan area.
- **Chapter 3: Circulation and Mobility.** This chapter describes the conceptual circulation and mobility plan for multiple modes of transportation including bicyclists, pedestrians, and vehicles throughout the Specific Plan area. It includes the conceptual roadway network and cross-sections for selected roadways. It also describes off-site roadway improvements that are proposed as part of this Specific Plan.
- **Chapter 4: Infrastructure and Public Services.** This chapter provides a description of the major utility infrastructure improvements to be provided at build-out of the Specific Plan and the public services required to serve users of the Specific Plan area.
- **Chapter 5: Design Guidelines.** This chapter explains the design principles and establishes a set of design guidelines for development within the Specific Plan area, including sustainability, site design, building architecture, lighting, landscaping, and signage.
- **Chapter 6: Implementation.** This chapter addresses the actions that are necessary to implement the Specific Plan by the City of South San Francisco, other agencies, and future Project Applicant(s) to achieve the goals and objectives outlined in the Specific Plan.

### 3.6.2 Project Characteristics

#### 3.6.2.1 Land Use Program

The proposed project entails the development of commercial buildings totaling up to approximately 2,800,000 square feet. The commercial buildings would generally range in height from five to seven stories. The buildings are primarily envisioned to accommodate office and R&D (including life science) tenants but may include limited office-supporting uses dedicated solely to tenant use, such as professional services, dining facilities, fitness centers, and related ancillary uses. Ground-floor spaces could include tenant amenities and/or commercial space. Where feasible, the public lobbies of new commercial buildings would front onto a newly constructed Southline Avenue, which would provide connectivity through the Specific Plan area to create a unified campus environment.

Future development of the proposed project would be subject to the development standards and design guidelines established in the Specific Plan. The specific number and locations of commercial buildings could vary as long as they are consistent with the development standards and design guidelines established in the Specific Plan. The development standards and design guidelines are described in Section 3.6.2.5 on p. 3-25 and Section 3.6.2.6 on p. 3-27, respectively. As described in Section 3.6.2.2, for purposes of the program-level EIR analysis and illustration, seven buildings and

an above-grade parking structure are assumed for the Office Scenario, and nine buildings and an above-grade parking structure are assumed for the Life Sciences Scenario.

The total commercial square footage allowed under the proposed project would include a four-story supportive amenities building (Building 2) of approximately 88,200 square feet, which is planned on the southwest corner of the Specific Plan area as part of Phase 1. Planned uses for the amenities building include publicly accessible ground-floor retail and amenity uses that front onto a public open space area adjacent to Huntington and Southline Avenues—an area referred to as the Southline Retail Plaza. It is anticipated that the upper floors of the amenities building would include amenity uses available to the Southline campus tenants such as a fitness center, cafeteria, and meeting spaces.

As part of the integrated campus design, the campus land use plan anticipates development of a central green space totaling approximately 1.5 acres—referred to as Southline Commons—that would offer outdoor amenities accessible to both tenants and the public. It is envisioned to include pedestrian paths, outdoor meeting and gathering spaces, casual dining areas, and space for recreation activities. Another integral part of the proposed design is the development of a new arterial roadway—Southline Avenue—that would be constructed east to west through the Specific Plan area between Huntington and South Linden Avenues. Southline Avenue would be constructed as part of Phase 1 and dedicated to the City as a public street.

### 3.6.2.2 Projected Buildout Scenarios and Phasing

Because the proposed Specific Plan would allow for development of the commercial campus as either office or R&D uses, or a combination of both, up to a total buildout of 2,800,000 square feet, the exact amount and configuration of future development cannot be forecast with precision. Therefore, for purposes of the program-level EIR analysis, the project applicant has identified two projected buildout scenarios that represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario.

The Office Scenario would develop office uses up to seven stories tall and the four-story amenities building (Building 2), for a total of approximately 2,800,000 square feet (FAR of approximately 2.4). The Life Sciences Scenario would develop R&D uses, including laboratory and office spaces, up to six stories tall and the four-story amenities building (Building 2), for a total of approximately 2,025,050 square feet (FAR of approximately 1.75). **Table 3-2, p. 3-15**, provides a comparison of key project features between the Office Scenario and Life Sciences Scenario. Each buildout scenario is described in detail below.

The reasonably foreseeable development assumed for the EIR analysis assesses what might be feasible, based on a number of market factors. Each buildout scenario is assumed to be compliant with the development standards and design guidelines set forth in the Specific Plan. Through the established Precise Plan and environmental review process required for each individual development under the Specific Plan, the City would monitor actual development as the Specific Plan is implemented to assess whether it is covered by the EIR analysis or whether subsequent review under CEQA is required.

**Table 3-2. Buildout Scenario Comparison**

	<b>Office Scenario</b>	<b>Life Sciences Scenario</b>
Total Office Area (sf) <sup>a</sup>	2,711,800	0
Total R&D Area (sf)	0	1,936,850
Total Amenity Area (restaurant, fitness center, event space) (sf)	88,200	88,200
Total Building Area (sf)	2,800,000	2,025,050
Maximum Floor Area Ratio (FAR)	2.4	1.75
Number of New Buildings	Seven buildings, one above-grade parking structure (Parking Structure C)	Nine buildings, one above-grade parking structure (Parking Structure C)
Building Heights	Four stories (60 feet above grade) to seven stories (115 feet above grade)	Four stories (60 feet above grade) to six stories (113 feet above grade) <sup>b</sup>
Total Building Footprint (sf) and Building Lot Coverage	543,315 (49 percent)	531,765 (46 percent)
Total Impervious Surface Area Including Buildings and Hardscape (sf)	897,691	893,499
Total Area of Ground Disturbance (sf)	1,435,737	1,435,737
Total Excavation volume (cy) <sup>c</sup>	688,400	353,700
Maximum Depth of Excavation (feet below grade surface)	31	31
Building Area to be Demolished (sf)	343,800 (all existing buildings in Specific Plan area)	343,800 (all existing buildings in Specific Plan area)
Trees to be Removed <sup>d</sup>	162 (all existing trees in Specific Plan area)	162 (all existing trees in Specific Plan area)
Trees to be Planted <sup>e</sup>	581	581
Estimated Employees <sup>f</sup>	10,935	4,392

<sup>a</sup> sf = square feet

<sup>b</sup> Interior floor-to-ceiling heights would be greater under the Life Sciences Scenario to accommodate associated equipment for that use type.

<sup>c</sup> cy = cubic yards; volumes are inclusive of off-site improvement areas.

<sup>d</sup> Up to 19 additional tree removals in the off-site improvement areas (within both the cities of South San Francisco and San Bruno) may be required; such removals would be required to comply with any applicable local regulations.

<sup>e</sup> Additional trees may be planted in the off-site improvement areas, subject to each city's tree replacement requirements (South San Francisco Municipal Code Chapter 13.30, San Bruno Municipal Code Chapters 8.24 and 8.25).

<sup>f</sup> Consistent with the Transportation Impact Analysis (TIA) in **Appendix 4.15-1**, assumes one employee per 250 square feet of office space, one employee per 1,000 square feet of amenity space, and one employee per 450 square feet of R&D space.

Each section in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, 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, office uses generate more vehicle trips, on a per square-footage basis, than R&D uses. Therefore, the Office Scenario is used to estimate the proposed project’s trip generation in Section 4.15, *Transportation and Circulation*, of this EIR. **Table 4.1-1** in Section 4.1, *Approach to Environmental Analysis*, of this EIR lists the buildout scenario assumed for each resource analysis presented throughout Chapter 4, *Environmental Setting, Impacts, and Mitigation*.

## Office Scenario Buildout

Under the Office Scenario, all existing uses would be demolished, and the Specific Plan area would be developed with 2,711,800 square feet of office uses and 88,200 square feet of amenity uses, for a total building area of 2,800,000 square feet and a total FAR of approximately 2.4. Seven buildings and an above-grade parking structure (Parking Structure C) would be constructed, resulting in an overall building footprint of approximately 543,315 square feet and a lot coverage of approximately 49 percent. The six office buildings would range in height from five to seven stories (74 feet to 115 feet above ground level). The amenity uses would be located in an amenities building (Building 2) at the southwest corner of the Specific Plan area at Tanforan and Huntington Avenues. Building 2 would be four stories in height (approximately 60 feet above ground level) and total 88,200 square feet. The amenity uses are assumed to include 16,400 square feet of various retail and dining uses that would be open to the public, with the remaining 71,800 square feet intended for campus tenant-only use, including a 9,000-square-foot private cafeteria, a 49,000-square-foot private gym, and a 13,800-square-foot auditorium/event space with associated ancillary space.

As described in Section 3.6.2.8 on p. 3-31, vehicle parking would be provided through subterranean parking under several buildings, a stand-alone parking garage (Parking Structure C), and limited off-street surface parking. The Specific Plan development standards allow for vehicle parking to be provided at a ratio of 2.2 spaces per 1,000 square feet of commercial use, resulting in a total parking supply of 5,769 stalls under the Office Scenario.

The Office Scenario would be consistent with the land use regulations, development standards, and design guidelines described in Sections 3.6.2.5 and 3.6.2.6 on pp. 3-25 and 3-27, respectively. The Office Scenario would include the circulation and mobility improvements, parking and TDM improvements, landscape and public realm improvements, infrastructure improvements, and sustainability features described in Sections 3.6.2.7 through 3.6.2.12. Construction of the Office Scenario would occur as described in Section 3.6.2.13 on p. 3-37.

**Table 3-3, p. 3-18**, provides a breakdown of land uses under the Office Scenario. **Figure 3-7, p. 3-53**, provides a conceptual site plan for the Office Scenario.<sup>11</sup> The conceptual site plan is intended to

<sup>11</sup> In addition to **Figure 3-7**, which provides a conceptual site plan for the Office Scenario, and **Figure 3-8**, which provides a conceptual site plan for the Life Sciences Scenario, Appendix C of the Specific Plan (included in **Appendix 2** of this EIR) includes a conceptual site plan that shows a blended office/life sciences scenario. Since both office and R&D uses are permitted within the Specific Plan area, it is likely that Specific Plan buildout would contain a mixture of these uses; thus, the blended office/life sciences scenario is the most realistic buildout scenario. However, for purposes of the EIR analysis, either the Office Scenario or Life Sciences Scenario is evaluated, depending on which scenario 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. This approach ensures that the EIR evaluates and discloses the greatest potential environmental impact that could result from Specific Plan buildout.

demonstrate an illustrative example of the potential location and orientation of buildings, alignment and design of streets, and placement and size of open space areas and public facilities, based on the development standards and design guidelines set forth in the Specific Plan, and is utilized for analyzing potential impacts under CEQA; however, the conceptual site plan should not be considered definitive with respect to the City's processing of future Precise Plans entitlements that may be issued under the Specific Plan.

## Life Sciences Scenario Buildout

As shown in **Table 3-4, p. 3-19**, the Life Sciences Scenario assumes that all phases of development, including Phase 1, would include R&D uses. Although the Phase 1 Precise Plan application proposes office uses only, and the project-level analysis of Phase 1 in this EIR assumes office uses only (as described in Section 3.6.3), it is appropriate to provide a program-level analysis of a full Life Sciences Scenario that includes Phase 1 as an R&D use, given that implementation of the Specific Plan would allow for development of an R&D campus. The Life Sciences Scenario is included to ensure that any particular impacts associated with R&D uses are fully analyzed and mitigated, as appropriate. The analysis of the Life Sciences Scenario is consistent with the project objectives discussed above in Section 3.5, with a variety of commercial building uses accommodated to ensure that the Specific Plan is responsive to market conditions and demands and to establish flexibility to build the proposed project in phases that respond to market conditions.

The total square footage of the Life Sciences Scenario is lower than the total square footage in the Office Scenario because laboratory spaces are assumed to require a greater floor-to-ceiling height, within the maximum permitted building height and FAR; this results in generally fewer floors per building and therefore less building square footage. Under the Life Sciences Scenario, all existing uses would be demolished, and the Specific Plan area would be developed with 1,936,850 square feet of life sciences/R&D uses<sup>12</sup> and 88,200 square feet of amenity uses, for a total building area of 2,025,050 square feet and a total FAR of 1.75. Nine buildings and an above-grade parking structure (Parking Structure C) would be constructed, resulting in an overall building footprint of approximately 531,765 square feet and a lot coverage of approximately 46 percent. The eight R&D buildings include a mix of laboratory, office, assembly, and related supportive spaces, and would range in height from four to six stories (approximately 52 feet to 113 feet above ground level). Unlike the Office Scenario, the Life Sciences Scenario would include wet laboratories with up to six compressed natural gas (CNG) process boilers, which could be used to generate steam for a range of applications (e.g., intensive cleaning of manufactured equipment).

As in the Office Scenario, the amenity uses would be located in an amenities building (Building 2) at the southwest corner of the Specific Plan area at Tanforan and Huntington Avenues and would be four stories in height (approximately 60 feet above ground level) and total 88,200 square feet. As with the Office Scenario, the amenity uses are assumed to include 16,400 square feet of various retail and dining uses that would be open to the public, with the remaining 71,800 square feet intended for campus tenant-only use, including a 9,000-square-foot private cafeteria, a 49,000-square-foot private gym, and a 13,800-square-foot auditorium/event space with associated ancillary space.

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<sup>12</sup> For purposes of this EIR, "research and development," or "R&D," has the meaning set forth in Section 20.620.005 of the South San Francisco Municipal Code: "A facility for scientific research and the design, development, and testing of electrical, electronic, magnetic, optical, pharmaceutical, chemical, and biotechnology components and products in advance of product manufacturing. Includes assembly of related products from parts produced off-site where the manufacturing activity is secondary to the research and development activities."

**Table 3-3. Projected Buildout Summary – Office Scenario**

Land Use	Existing (sf)	Existing to be Removed (sf)			New Construction (sf) <sup>a</sup>			Net New (sf) <sup>a</sup>			Total Buildout (sf) <sup>a</sup>		
		Phase 1	Future Phases	Total	Phase 1 <sup>b</sup>	Future Phases	Total	Phase 1 <sup>b</sup>	Future Phases	Total	Phase 1 <sup>b</sup>	Future Phases	Total
Industrial/Warehouse	339,349	339,349	0	339,349	0	0	0	(339,349)	0	(339,349)	0	0	0
Office	4,451	4,451	0	4,451	612,715	2,099,085	2,711,800	608,264	2,099,085	2,707,349	612,715	2,099,085	2,711,800
R&D	0	0	0	0	0	0	0	0	0	0	0	0	0
Amenity <sup>c</sup>													
Retail/Dining	0	0	0	0	16,400	0	16,400	16,400	0	16,400	16,400	0	16,400
Cafeteria	0	0	0	0	9,000	0	9,000	9,000	0	9,000	9,000	0	9,000
Fitness Center	0	0	0	0	49,000	0	49,000	49,000	0	49,000	49,000	0	49,000
Auditorium/Other	0	0	0	0	13,800	0	13,800	13,800	0	13,800	13,800	0	13,800
<b>Total</b>	<b>343,800</b>	<b>343,800</b>	<b>0</b>	<b>343,800</b>	<b>700,915</b>	<b>2,099,085</b>	<b>2,800,000</b>	<b>357,115</b>	<b>2,099,085</b>	<b>2,456,200</b>	<b>700,915</b>	<b>2,099,085</b>	<b>2,800,000</b>

## Notes:

- <sup>a</sup> The total square footage allocation is intended to provide information regarding one conceptual buildout of the proposed project. With exception for the total allowable buildout square footage of 2,800,000 square feet, the square footages of new construction provided in this table are not intended as caps on development of specific uses. Development under the Specific Plan would require approval of project-level Precise Plans by the City, a process that would include either analysis to confirm that no subsequent CEQA analysis is required, or completion of subsequent CEQA analysis.
- <sup>b</sup> Specific development square footage allocated to Phase 1 is subject to project-level Precise Plan review and approval by City. Any square footage allocated to Phase 1 that is not constructed during Phase 1 may be developed in subsequent phases, subject to development standards and design guidelines.
- <sup>c</sup> The ground floor retail and dining uses would be open to the public. All other upper-floor amenity uses would be for the private use of project tenants.

**Table 3-4. Projected Buildout Summary – Life Sciences Scenario**

Land Use	Existing (sf)	Existing to be Removed (sf)			New Construction (sf) <sup>a</sup>			Net New (sf) <sup>a</sup>			Total Buildout (sf) <sup>a</sup>		
		Phase 1	Future Phases	Total	Phase 1 <sup>b</sup>	Future Phases	Total	Phase 1 <sup>b</sup>	Future Phases	Total	Phase 1 <sup>b</sup>	Future Phases	Total
Industrial/Warehouse	339,349	339,349	0	339,349	0	0	0	(339,349)	0	(339,349)	0	0	0
Office	4,451	4,451	0	4,451	0	0	0	(4,451)	0	(4,451)	0	0	0
R&D	0	0	0	0	612,715 <sup>d</sup>	1,324,135	1,936,850	612,715	1,324,135	1,936,850	612,715	1,324,135	1,936,850
Amenity <sup>c</sup>													
Retail/Dining	0	0	0	0	16,400	0	16,400	16,400	0	16,400	16,400	0	16,400
Cafeteria	0	0	0	0	9,000	0	9,000	9,000	0	9,000	9,000	0	9,000
Fitness Center	0	0	0	0	49,000	0	49,000	49,000	0	49,000	49,000	0	49,000
Auditorium/Other	0	0	0	0	13,800	0	13,800	13,800	0	13,800	13,800	0	13,800
<b>Total</b>	<b>343,800</b>	<b>343,800</b>	<b>0</b>	<b>343,800</b>	<b>700,915</b>	<b>1,324,135</b>	<b>2,025,050</b>	<b>357,115</b>	<b>1,324,135</b>	<b>1,681,250</b>	<b>700,915</b>	<b>1,324,135</b>	<b>2,025,050</b>

## Notes:

- <sup>a</sup> The total square footage allocation is intended to provide information regarding one conceptual buildout of the proposed project. With exception for the total allowable buildout square footage of 2,025,050 square feet, the square footages provided in this table are not intended as caps on development of specific uses. Development under the Specific Plan would require approval of project-level Precise Plans by the City, a process that would include either analysis to confirm that no subsequent CEQA analysis is required, or completion of subsequent CEQA analysis.
- <sup>b</sup> Specific development square footage allocated to Phase 1 is subject to project-level Precise Plan review and approval by City. Any square footage allocated to Phase 1 that is not constructed during Phase 1 may be developed in subsequent phases.
- <sup>c</sup> The ground-floor retail and dining uses would be open to the public. All other upper-floor amenity uses would be for the private use of project tenants.
- <sup>d</sup> Although the Phase 1 Precise Plan application proposes office uses only, and the project-level analysis of Phase 1 in this EIR assumes office uses only (as described in Section 3.6.3 on p. 3-38), it is appropriate to provide a program-level analysis of a full Life Sciences Scenario that includes Phase 1 as an R&D use, given that implementation of the Specific Plan would allow for development of an R&D campus.

As described in Section 3.6.2.8 on p. 3-26, vehicle parking would be provided through subterranean parking under several buildings, a stand-alone parking garage (Parking Structure C), and limited off-street surface parking. The Specific Plan development standards allow for vehicle parking to be provided at a ratio of 2.2 spaces per 1,000 square feet of commercial use, resulting in a total parking supply of 4,291 stalls under the Life Sciences Scenario.

The Life Sciences Scenario would be consistent with the land use regulations, development standards, and design guidelines described in Sections 3.6.2.5 and 3.6.2.6 on pp. 3-25 and 3-27, respectively. The Life Sciences Scenario would include the circulation and mobility improvements, parking and TDM improvements, landscape and public realm improvements, infrastructure improvements, and sustainability features described in Sections 3.6.2.7 through 3.6.2.12. Construction of the Life Sciences Scenario would occur as described in Section 3.6.2.13 on p. 3-37.

**Table 3-4, p. 3-19**, provides a breakdown of land uses under the Life Sciences Scenario. **Figure 3-8, p. 3-54**, provides a conceptual site plan for the Life Sciences Scenario.<sup>13</sup> The conceptual site plan is intended to demonstrate an illustrative example of the potential location and orientation of buildings, alignment and design of streets, and placement and size of open space areas and public facilities, based on the development standards and design guidelines set forth in the Specific Plan and is utilized for analyzing potential impacts under CEQA; however, the conceptual site plan should not be considered definitive with respect to the City's processing of future Precise Plans that may be issued under the Specific Plan.

## Phasing

The proposed project would be implemented over time and in a phased approach, with full buildout anticipated in 2030. The anticipated sequence of construction is shown in **Figure 3-9, p. 3-55**. Two or three phases are anticipated, with Phase 1 construction anticipated to commence in 2022. The specific details regarding the future phases following Phase 1 with respect to precise timing for development, the exact boundaries within the Specific Plan area of these phases, and the square footage developed within each phase would depend on a number of factors, including market conditions, availability of financing, and tenancy requirements. **Table 3-3 and Table 3-4, pp. 3-18 and 3-19**, describe the square footages of development proposed for Phase 1 and future phases under the Office Scenario and Life Sciences Scenario, respectively. Phase 1 is described in further detail in Section 3.6.3 on p. 3-38. The construction sequences are shown in **Figure 3-9. Tables 3-3 and 3-4** are intended to demonstrate the area anticipated for Phase 1 construction, as well as the remaining portion of the Specific Plan area in which future phases would be developed, to be utilized for analyzing potential impacts under CEQA; however, it should not be considered definitive with respect to the City's processing of future Precise Plans that may be issued under the Specific Plan.

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<sup>13</sup> In addition to **Figure 3-7**, which provides a conceptual site plan for the Office Scenario, and **Figure 3-8**, which provides a conceptual site plan for the Life Sciences Scenario, Appendix C of the Specific Plan (included in Appendix 2 of this EIR) includes a conceptual site plan that shows a blended office/life sciences scenario. Since both office and R&D uses are permitted within the Specific Plan area, it is likely that Specific Plan buildout would contain a mixture of these uses; thus, the blended office/life sciences scenario is the most realistic buildout scenario. However, for purposes of the EIR analysis, either the Office Scenario or Life Sciences Scenario is evaluated, depending on which scenario 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. This approach ensures that the EIR evaluates and discloses the greatest potential environmental impact that could result from Specific Plan buildout.

Any future development within the Specific Plan area would be responsible for the construction of the required private and public infrastructure necessary to support each phase of development within that respective area (e.g., water, sewer, stormwater) and, in relevant circumstances, in adjacent off-site areas, as determined by the City. It is anticipated that constructed public infrastructure associated with development of the proposed project would be dedicated to and accepted by various relevant public agencies and utility companies (i.e., City of South San Francisco, City of San Bruno, Cal Water, PG&E, etc.).

### 3.6.2.3 Off-Site Improvements

The proposed project includes circulation and infrastructure improvements located within the 6.4-acre off-site improvement areas, outside the 26.5-acre Specific Plan area, some of which are located in the City of San Bruno and/or within BART jurisdiction. **Table 3-5, p. 3-21**, lists the proposed off-site improvements, the jurisdiction(s) in which the improvements are located, when each improvement would be constructed, and where the improvements are described in this EIR.

**Table 3-5. Summary of Off-Site Infrastructure Improvements**

Improvement	Agencies with Jurisdiction <sup>a</sup>	Project Phase	Where Described in EIR
<b>Circulation</b>			
Construct new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue. Install transit signal priority devices on the signal masts for SamTrans and shuttle buses.	City of San Bruno, City of South San Francisco	Phase 1	Section 3.6.2.7, Figure 3-20
Construct, roadway, bicycle, and pedestrian improvements along Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue, including: <ul style="list-style-type: none"> <li>• Improved ADA-accessible pedestrian path on the east side of Huntington Avenue.</li> <li>• A new dedicated, signalized northbound left turn lane on Huntington Avenue providing a new entrance into the transit center for SamTrans buses.</li> <li>• A new multi-use pedestrian/bicycle pathway on the west side of</li> </ul>	City of San Bruno, City of South San Francisco, BART	Phase 1	Section 3.6.2.7, Figure 3-18, Figure 3-19, Figure 3-20

<b>Improvement</b>	<b>Agencies with Jurisdiction<sup>a</sup></b>	<b>Project Phase</b>	<b>Where Described in EIR</b>
<p>Huntington Avenue from Southline Avenue to the transit center and BART station, providing connection to the existing Centennial Way Trail.</p> <ul style="list-style-type: none"> <li>Bulb-outs and high-visibility crosswalks at the BART station garage intersection to facilitate safe pedestrian crossing.</li> </ul>			
Reconfigure the west end of Tanforan Avenue to create a new cul-de-sac allowing for residential and emergency vehicle access only (i.e., no through access to Huntington Avenue).	City of South San Francisco, City of San Bruno	Phase 1	Section 3.6.2.7, Figure 3-22
Realign and install synchronized signal at Dollar Avenue and South Linden Avenue intersection	City of South San Francisco	Phase 1	Section 3.6.2.7, Figure 3-20
Reconfigure existing at-grade rail crossing at South Linden Avenue	City of South San Francisco, Caltrain, CPUC	Phase 1	Section 3.6.2.7, Figure 3-20
Widen South Maple Avenue and install streetfront improvements. Construct wider ramps and crosswalks on the Centennial Way Trail adjacent to South Maple Avenue.	BART, City of South San Francisco	Future phases	Section 3.6.2.7, Figure 3-18
<b>Utilities</b>			
Relocate water main along South Linden and Dollar Avenues	City of South San Francisco	Phase 1	Section 3.6.2.11, Figure 4.17-1
Construct new water main from South Maple Avenue along the entirety of Southline Avenue to the existing six-inch water line on South Linden Avenue	City of South San Francisco	Phase 1	Section 3.6.2.11, Figure 4.17-1

<b>Improvement</b>	<b>Agencies with Jurisdiction<sup>a</sup></b>	<b>Project Phase</b>	<b>Where Described in EIR</b>
Upsize sewer mains on Tanforan Avenue and Shaw Road	City of South San Francisco	Phase 1	Section 3.6.2.11, Figure 4.17-2
Install new 8-inch sewer main to proposed development south to Tanforan Avenue	City of South San Francisco	Phase 1	Section 3.6.2.11, Figure 4.17-2
Construct new storm drain mains in South Linden and Dollar Avenues	City of South San Francisco	Phase 1	Section 3.6.2.11, Figure 4.17-3
Realign existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue	City of South San Francisco City of San Bruno	Phase 1	Section 3.6.2.11, Figure 4.17-3
Realign existing sewer main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue	City of South San Francisco City of San Bruno	Phase 1	Section 3.6.2.11, Figure 4.17-2
Realign existing water main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue	City of South San Francisco City of San Bruno Cal Water	Phase 1	Section 3.6.2.11, Figure 4.17-1
Upsize sewer mains on the northerly portion of South Maple Avenue from South Maple through an existing easement to Lowrie Avenue	City of South San Francisco	Future phases	Section 3.6.2.11, Figure 4.17-2

## Notes:

- <sup>a</sup> Jurisdiction over improvements along Huntington Avenue south of Southline Avenue are subject to ongoing coordination between BART and the City of San Bruno to complete a right-of-way transaction separate from the proposed project.

### 3.6.2.4 Land Use Regulations

The proposed project would establish a new zoning district unique to the proposed Specific Plan area, referred to as the Southline Campus District (S-C District). The S-C District is intended to implement the development standards established under the Specific Plan. As shown in **Figure 3-10, p. 3-56**, the S-C District would cover the entire Specific Plan area. The proposed project would also require General Plan amendments to amend General Plan Figure 2-3, Special Area Height Limitations; increase the allowable building heights in the Specific Plan area from 80 feet up to a

maximum of 120 feet, consistent with FAA limits; and re-designate the approximately 0.3-acre parcel currently designated as Parks and Recreation to Office, to be consistent with the General Plan designation of the remainder of the Specific Plan area.

Permitted, conditionally permitted, and prohibited uses within the S-C District are shown in **Table 3-6**, below. Permitted and conditionally permitted uses include various types of office; employment and commercial; eating and drinking; public and semi-public; transportation, communications, and utility; and temporary and interim uses. In cases where a specific land use or activity is not specifically listed as a permitted or conditionally permitted use, the Chief Planner may assign the land use or activity to a classification that is substantially similar in character. The Specific Plan does not permit residential uses or indoor cannabis cultivation or testing uses. Uses that are illegal under local, state, or federal law would not be allowed.

**Table 3-6. Allowable Land Uses in the S-C District**

Use <sup>a,b</sup>	Southline Campus (S-C)
<b>Offices</b>	
Business and Professional	P
Medical/Dental	P
Walk-In Clientele	P
<b>Employment and Commercial Uses</b>	
Research and Development (R&D)	P
Clean Technology	P
Business Services	P
Commercial Recreation	P
Lodging – Hotels and Motels	CUP
Parking Services	P
General Personal Services	P
Retail Sales – General Sales	P
Indoor Sports and Recreation	P
Cannabis Indoor Cultivation or Testing	NP
<b>Eating and Drinking Establishments<sup>c</sup></b>	
Coffee Shops/Cafés	P
Restaurants, Full Service	P
Restaurants, Limited Service	P
<b>Residential</b>	
	NP
<b>Public and Semi-Public Uses</b>	
Community Assembly	CUP
Cultural Institutions	CUP
Government Offices	CUP
Park and Recreation Facilities, Public	P
Public Safety Facilities	P

Use <sup>a,b</sup>	Southline Campus (S-C)
<b>Transportation, Communications, and Utilities</b>	
Antennae and Transmission Towers	CUP
Transportation Hub <sup>d</sup>	P
Utilities – Minor	P
<b>Other</b>	
Temporary and interim uses, including produce market, flea market, craft and art fairs, auction gallery, and other similar uses	TUP
Other uses determined by the Chief Planner to be similar to and compatible with described permitted and conditionally permitted uses	P
Notes:	
P	Land use permitted by right
CUP	Land use allowed with the approval of a Conditional Use Permit per generally applicable provisions of the South San Francisco Municipal Code.
TUP	Land use allowed with the approval of a Temporary Use Permit per generally applicable provisions of the South San Francisco Municipal Code.
NP	Land use not allowed/not permitted
<sup>a</sup>	Unless otherwise indicated, uses have the same meaning as those use classifications, as defined under Chapter 20.620 of the South San Francisco Zoning Ordinance.
<sup>b</sup>	Certain permitted or conditionally uses are subject to confirmation that no subsequent CEQA analysis is required or, if subsequent CEQA analysis is required, the subsequent analysis has been completed.
<sup>c</sup>	Includes food trucks/mobile food facilities and outdoor food kiosks.
<sup>d</sup>	Use includes facilities for accommodation of shuttles and ride-share pickup and drop-off zones, along with other features that may be included in any applicable TDM programs within the project site.

### 3.6.2.5 Development Standards

The Specific Plan establishes development standards for the S-C District related to intensity of development, parking, setbacks, building height, landscaping, and loading areas. The development standards, shown in **Table 3-7, p. 3-26**, establish rules for the physical development of property within the Specific Plan area, including building placement, scale and form, and lot design. Among other requirements, the development standards establish a total maximum floor area of 2,800,000 square feet and a maximum building height in accordance with FAA and ALUCP requirements; generally, the maximum height limit within the Specific Plan would be 120 feet, as shown in **Figure 3-11, p. 3-57**, but actual heights will depend on the specific elevation of the relevant portion of the Specific Plan area and the applicable height contours under the above applicable regulations. In any instance where both the Specific Plan and South San Francisco Municipal Code (or other City rule, regulation, or guideline) provide a development standard for some aspect of site or building design, the Specific Plan requirement would supersede the other requirement. Together with the proposed design guidelines (refer to Section 3.6.2.6, p. 3-22), the development standards implement and refine the policies and vision of the General Plan for the Specific Plan area and the Lindenville Planning Sub-Area.

**Table 3-7. Southline Campus (S-C) Development Standards**

<b>Standard</b>	<b>Requirement</b>	<b>Comments/Additional Regulations</b>
<b>Lot and Density Standard</b>		
Maximum Floor Area Ratio	2.4 <sup>a</sup>	See Chapter 20.040, Rules of Measurement, of the South San Francisco Zoning Ordinance
Maximum Lot Coverage	70 percent	See Section 20.040.010, Determining Lot Coverage, of the South San Francisco Zoning Ordinance
Minimum Open Space Coverage	15 percent <sup>b</sup>	
Maximum Parking (spaces per 1,000 sf)	2.20 <sup>c</sup>	With option of valet parking within this range
Minimum Bicycle Parking <sup>d</sup>	1 bicycle space per 3,000 square feet	Approximately 90% of bicycle spaces will be provided for long-term use and the remaining 10% will be for short-term use. The specific allocation and location of short-term and long-term spaces will be established under each Precise Plan.
<b>Setbacks (feet) <sup>e</sup></b>		
Front	10	
Side, Interior	10	
Side, Street	10	
Tanforan Avenue	25	Setback to be 25 feet as measured from property line per SSFMC 20.040.012 and approximately 40 feet as measured from the Tanforan Avenue right of way.
Southline Avenue	0	Landscape buffers should be used to visually screen and soften the perimeter of the Specific Plan area, including along Southline Avenue. See Section 5.4.6 and Figures 3-2a and 3-2b Conceptual Southline Avenue Cross-Sections of the Specific Plan.
Rear, Interior	10	
<b>Building Form and Location</b>		
Maximum Building Height (feet)	Approximately 120 <sup>f</sup>	Building heights shall be governed by maximum height allowances under FAA Part 77 regulations and San Francisco International Airport ALUCP. See Section 20.040.005, Measuring Height, and Section 20.300.006, Height and Height Exceptions, of the South San Francisco Zoning Ordinance.

Standard	Requirement	Comments/Additional Regulations
Loading Area	1 / building	Minimum size may not be less than 12 feet wide, 50 feet long, and 14 feet high, exclusive of driveways for ingress and egress, maneuvering areas, and setbacks.

## Notes:

- <sup>a</sup> Total allowable floor area and FAR shall be calculated based on entire Specific Plan area (inclusive of Southline Avenue and other dedicated improvements) rather than on a lot-by-lot basis. The total allowable floor area shall be 2,800,000 square feet across the entire Specific Plan area, which equates to approximately 2.4 FAR, exclusive of the campus Parking Structure C, underground parking, and any other applicable exceptions provided under South San Francisco Municipal Code (SSFMC) Chapter 20.040 Rules of Measurement.
- <sup>b</sup> Total allowable open space area shall be calculated based on entire Specific Plan area (inclusive of Southline Avenue and other dedicated improvements) rather than on a lot-by-lot basis. Open space includes all landscaped areas, sidewalks and pathways, decorative paving, and passive and active areas.
- <sup>c</sup> Includes 30 spaces allocated to ground-floor public retail uses in Building 2. Upper-floor amenity space in Building 2 would be for tenant use only and would not be subject to additional parking requirement. In coordination with the City of South San Francisco, the project applicant shall monitor parking usage and availability during Phase 1 to determine how much parking is needed and constructed for future phases. Precise Plan applications for subsequent phases following Phase 1 shall include information regarding existing parking demand and usage in order to evaluate additional on-site parking required and to ensure that on-site parking remains within the maximum parking ratio of 2.2.
- <sup>d</sup> The Southline Specific Plan Table 2-1 and the Chapter 5 Design Guidelines establish the bicycle parking requirements for the Specific Plan area; SSFMC 20.330.008 (Bicycle Parking) does not apply.
- <sup>e</sup> Setbacks are measured from the property line. Refer to SSFMC 20.040.012 Determining Setbacks (Yards) and SSFMC 20.300.011 Projections into Required Yards. Subterranean garages within the Specific Plan area are not subject to setback requirements.
- <sup>f</sup> Actual building heights will depend on the specific elevation of the relevant portion of the Specific Plan area and the applicable height contours under the above applicable regulations.

### 3.6.2.6 Design Guidelines

The Specific Plan includes design guidelines for development within the Specific Plan area, including site design, building architecture, lighting, landscaping, and signage. The design guidelines describe and illustrate the designs, concepts, and features intended to promote the high-quality development that is envisioned for the Specific Plan area. These design guidelines would be used by the City in conjunction with the development standards described in Section 3.6.2.5 to guide the review and approval of subsequent Precise Plans for development within the Specific Plan area.

The design guidelines for commercial buildings encourage a contemporary interpretation of the existing industrial motif using glass, metal and “brick-like” materials in a rich color palette, reflecting the industrial history of the Lindenville Planning Sub-Area. The composition of each building’s massing and design would vary, making each building unique rather than utilizing repetitive forms throughout the project site. Building features are encouraged to create visual interest that would help to break down the overall scale and massing. Wall planes would vary in depth and direction to create an interesting streetscape. Building scale would be further articulated by fenestration that offers additional depth and texture. A combination of parapets, eaves, projecting roof forms would be used to create interest at the roof line. Integrated penthouse forms above each or some of the building main entries would further emphasize massing hierarchy. Building entries would be prominently located and marked.

Parking Structure C is envisioned to have simple and straightforward volumetric geometry. Stairs and elevator towers would utilize distinctive mass that is different but complementary to the overall building form. Prominent building corners would include additional notching, stepping, and integrating architectural elements like stairs or elevator towers to enhance the overall building form. The design character and building materials would be compatible with the commercial buildings in the Specific Plan area.

Landscape elements (including planting, lighting, hardscape, etc.) within the Specific Plan area would be designed to reflect a contemporary campus setting that is compatible with the Industrial Modern building architecture and aesthetic described above. Landscaping and open space would be designed to create a distinct visual identity through the use of cohesive streetscapes; street and outdoor common area furniture; walls; entry features; local, native and/or adaptive plant materials; distinctive street lighting and directional signage; and other similar elements.

**Figures 3-12 through 3-15, pp. 3-58 through 3-61**, provide conceptual simulations of future uses under the proposed design guidelines. The conceptual simulations are intended to demonstrate an illustrative example of the potential location and orientation of buildings, alignment and design of streets, and placement and size of open space areas and public facilities, based on the development standards and design guidelines set forth in the Specific Plan, and should not be considered definitive.

### **3.6.2.7 Circulation and Mobility**

The proposed project would construct new circulation improvements throughout the project site (i.e., within the Specific Plan area and the off-site improvement areas). The proposed circulation improvements include new streets, pedestrian network improvements to enhance access and connectivity to the San Bruno BART station, minor reconfiguration to Centennial Way Trail, neighborhood traffic calming measures, and roadway reconfigurations to ensure compatibility with a potential future grade separation of the Caltrain tracks.

#### **Vehicular Circulation**

As shown in **Figure 3-16, p. 3-62**, vehicular circulation within the Specific Plan area would include the new public Southline Avenue roadway that would provide connectivity through the Specific Plan area and to surrounding areas, as well as internal private roadways that would provide access to parking, loading, and building areas within the Specific Plan area.

#### **Southline Avenue (Phase 1)**

The new Southline Avenue arterial roadway (provisionally named for the purpose of the Specific Plan and CEQA review), a central circulation feature, would be constructed east to west through the Specific Plan area between Huntington and South Linden Avenues during Phase 1. The construction of the new Southline Avenue would be consistent with and would further General Plan policies calling for the extension of South Linden Avenue to the San Bruno BART station. Southline Avenue would have two travel lanes in each direction, a center median, and a Class II bike lane on both sides. A wide sidewalk would be separated from the roadway by a landscaped planting area on both sides. Cross-sections for the proposed Southline Avenue are shown in **Figure 3-17, p. 3-63 and 3-64**.

Development of Southline Avenue would involve the construction of new signalized intersections at Huntington Avenue/Sneath Lane/Maple Avenue (described below under “Off-Site Circulation Improvements”) and mid-block within the Specific Plan area (Southline Avenue/Central Project

Driveway). The proposed project also would realign the intersection of South Linden Avenue/Dollar Avenue on the east side of the Specific Plan area to connect to Southline Avenue (also described below under “Off-Site Circulation Improvements”). Upon completion of Southline Avenue, it is anticipated that Southline Avenue and associated improvements located within South San Francisco would be dedicated to the City.

## Pedestrian Circulation

The proposed project would include pedestrian circulation and safety improvements both on-site for campus users and off-site in the adjacent community, particularly through enhanced access to the San Bruno BART station and the Centennial Way Trail.

The arrangement of on-site pedestrian facilities would provide on-site walkable connectivity between buildings, on-site vehicle and bicycle parking areas, the Southline Commons open space area (described in Section 3.6.2.10), mobility hubs, and connectivity across Southline Avenue. In appropriate areas, pedestrian walkways may include distinctive formal and informal hardscape features such as concrete unit pavers, ceramic wood tile, and decomposed granite. Areas for seating and benches may be located and integrated with these walkways. Where appropriate, landscaping would be used to provide safe, pedestrian-friendly separation from adjacent roadways. **Figure 3-18, p. 3-65**, provides a conceptual layout of potential pedestrian facilities located on and adjacent to the project site in a manner that reflects the goals and policies of the Specific Plan.

## Bicycle Circulation, Parking and Facilities

Bicycle circulation would be integrated throughout the Specific Plan area and would include Class II bike lanes on both sides of Southline Avenue and Class III bike routes on internal roadways where bicyclists and slower-moving vehicles would share the road, as shown in **Figure 3-19, p. 3-66**. As described in **Table 3-7, p. 3-3-26**, the Specific Plan includes a development standard requiring that 1 bicycle space be provided per 3,000 square feet of development. Approximately 90 percent of bicycle spaces would be provided for long-term use and the remaining 10 percent will be for short-term use; however, the specific allocation and location of short-term and long-term spaces would be established under each Precise Plan. Short-term bicycle parking would be provided by surface-level bike racks located adjacent to the Southline Retail Plaza (described in Section 3.6.2.10) and proximate to building entries. Long-term bicycle parking would be provided in below- and above-grade parking structures. Where appropriate, buildings would include showers and lockers to accommodate long-term users (i.e., employees). Refer to **Table 3-8, p. 3-29**, for the Specific Plan’s proposed bicycle parking requirements as applied to the Office Scenario, which would result in the maximum amount of bicycle parking compared to the Life Sciences Scenario.

**Table 3-8. Proposed Bicycle Parking**

	Phase 1	Future Phases	Total at Buildout
	1 space / 3,000 sf	1 space / 3,000 sf	1 space / 3,000 sf
Long-Term Bicycle Parking Spaces	191	602	793
Short-Term Bicycle Parking Spaces	27	71	98
<b>Total Bicycle Parking Spaces – Office Scenario<sup>a</sup></b>	<b>218</b>	<b>673</b>	<b>891</b>

<sup>a</sup> This table provides a summary of the approximate number of bicycle spaces that would result from development of the Office Scenario, which would result in a higher amount of bicycle parking compared to the Life Sciences

Scenario. Specific details regarding bicycle parking amount and location, as well as the specific allocation and location of short-term and long-term spaces, would be established under each Precise Plan as set forth in the Southline Specific Plan.

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## Off-Site Circulation Improvements

A number of off-site circulation improvements, including new signalization at certain intersections, located outside of the Specific Plan area, are planned in connection with development of the proposed project. Unless otherwise noted, these improvements would occur in Phase 1. The location of these improvements are shown in **Figure 3-20, p. 3-67**. Implementation of these improvements would require review and/or approvals or actions by the City and/or other agencies or entities, including approvals by the City of San Bruno, BART, SamTrans, the Peninsula Corridor Joint Powers Board (Caltrain), and/or the California Public Utilities Commission.

### Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue Intersection (Phase 1)

The project would create a new signalized intersection between Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue at the project entrance, as shown in **Figure 3-21, p. 3-68**. Huntington Avenue would be aligned with Maple Avenue, while Sneath Lane would be aligned with Southline Avenue. The western leg of the intersection would include a crossing for the Centennial Way Trail, while high-visibility crosswalks would be provided on the remaining northern, southern, and eastern legs of the intersection.

The new intersection would change access to several adjacent driveways. Access to the BART maintenance facility driveway on the north side of Huntington Avenue would remain in the westbound direction but would be restricted in the eastbound direction. Northbound bus access from Huntington Avenue to the SamTrans Transit Center would be relocated to a signalized bus-only left turn. Eastbound access to the SamTrans Transit Center would remain. Tanforan Avenue would be separated from Maple Avenue while maintaining a connection with Huntington Avenue East. No vehicular project access would occur on Tanforan Avenue.

### Huntington Avenue Improvements (Phase 1)

As shown in **Figure 3-21, p. 3-68 and 3-69**, to provide improved pedestrian access to the San Bruno BART station, a portion of Huntington Avenue, primarily within City of San Bruno and BART jurisdiction, would be improved from the new intersection at Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue. The project would extend the Centennial Way Trail to the San Bruno BART station, providing an approximately 15- to 17-foot-wide multi-use path for shared bicycle and pedestrian use along the west side of Huntington Avenue. The project would also implement accessibility improvements pedestrian path on the east side of Huntington Avenue and a new crosswalk and pedestrian bulb-out on the south side of the SamTrans Transit Center driveway to provide a more direct connection between the BART station to the eastern sidewalk along Huntington Avenue. Improvements would also include installing transit signal priority devices on the signal masts at the Huntington/Southline Avenues intersection for SamTrans and shuttle buses to create a dedicated signalized bus entrance to the SamTrans transit center. The project would also construct a new dedicated, signalized northbound left turn lane on Huntington Avenue providing a new entrance into the transit center for SamTrans buses.

### **Tanforan Avenue Improvements (Phase 1)**

As shown in **Figure 3-22, p. 3-70**, Tanforan Avenue would be converted to a cul-de-sac east of Huntington Avenue, adjacent to residential uses within San Bruno's jurisdiction. This would prohibit through traffic and create a slower traffic environment for the existing San Bruno residents to the south. With the exception of required emergency vehicle access, there would be no vehicular access from Tanforan Avenue into the Specific Plan area. The residential community located to the south of the project site would continue to have access from the existing one-way northbound Huntington Avenue East to Tanforan Avenue.

### **Southline Avenue/South Linden Avenue/Dollar Avenue Intersection (Phase 1)**

As shown in **Figure 3-20, p. 3-67**, the proposed project would realign and signalize the intersection of South Linden Avenue/Dollar Avenue on the east side of the Specific Plan area to connect to the new Southline Avenue. The northern leg of South Linden Avenue would align with Dollar Avenue, while Southline Avenue would connect across a realigned at-grade rail crossing of Caltrain to San Mateo Avenue. Eventually, it is anticipated that this crossing would be grade separated as part of the proposed South Linden Avenue and Scott Street Grade Separation Project that are independent and unrelated to the project. The project's design of Southline Avenue maintains flexibility for a future grade separation; in the interim, the project proposes a reconfigured at-grade rail crossing to connect Southline Avenue with South Linden Avenue.

### **South Maple Avenue Improvements (Future Phase)**

South Maple Avenue currently includes one travel lane north and one travel lane south. On-street parking is available on one or both sides at various locations. Planned roadway improvements, within both South San Francisco and San Bruno, include reconfiguration of portions of the roadway and revisions to parking at various locations. A sidewalk on the east side and existing Centennial Way Trail on the west side would be separated by a landscaped planting area. Wider ramps and crosswalks would be constructed on the Centennial Way Trail, as shown in **Figure 3-18, p. 3-65**.

Widening of and street front improvements along portions of South Maple Avenue and the Centennial Way Trail are anticipated to occur during future phases of development.

## **3.6.2.8 Vehicle Parking**

Vehicle parking would be provided through subterranean parking under several buildings, a stand-alone parking garage (Parking Structure C), and limited off-street surface parking. Pursuant to the development standards shown in **Table 3-7, p. 3-26**, parking would be provided at a ratio of 2.2 spaces per 1,000 square feet of commercial use, with an option to incorporate a valet parking strategy within this range. For purposes of the EIR analysis, a 2.2 parking ratio is assumed, which would result in larger parking areas and a greater impact on the environment.

As shown in **Table 3-9, p. 3-32**, an estimated 3,420 to 5,769 parking spaces would be provided, depending on the total amount of development and parking ratios applied. The total parking provided includes 30 spaces allocated to ground-floor public retail uses in Building 2. Upper-floor amenity space in Building 2 would be for tenant use only and not subject to additional parking requirements.

**Table 3-9. Proposed Vehicle Parking**

	Phase 1 <sup>a</sup>	Future Phases <sup>a</sup>	Total at Buildout <sup>a</sup>
<b>Office Scenario</b>			
Vehicle Parking Stalls	1,379	4,390	5,769
<b>Life Sciences Scenario</b>			
Vehicle Parking Stalls	1,379	2,912	4,291

Notes:

<sup>a</sup> Per the Specific Plan, parking would be provided at a ratio of 2.2 spaces per 1,000 square feet of commercial use.

Most of the project's parking would be provided in Parking Structure C, an L-shaped, above-grade parking structure that would be constructed in the northeast corner of the Specific Plan area. As shown in **Figure 3-9, p. 3-55**, the eastern wing of Parking Structure C would be constructed as part of Phase 1, and the western wing would be constructed in a future phase. Primary access to Parking Structure C in Phase 1 would be from South Linden Avenue. Eleven levels of parking, including nine above-grade levels and two below-grade levels, would provide up to approximately 3,330 parking spaces, 1,490 of which would be constructed during Phase 1, as described in **Section 3.6.3.2**<sup>14</sup>

Two levels of subterranean parking would be located north and south of the new Southline Avenue, spanning most of the project site, as shown in **Figure 3-23, p. 3-71**. In both areas, the Level 2 basement would extend to a depth of approximately 31 feet below grade level, but the footprint of the Level 2 foundation north of Southline Avenue would be substantially larger under a 2.2-per-1,000-square-foot parking ratio. The EIR analysis is based on the larger foundation footprint. The subterranean parking levels north of Southline Avenue would be accessed from Parking Structure C, which would connect to the subterranean parking underground, and an at-grade ramp in the center of the Specific Plan area, accessed from the internal street network. Access to the subterranean parking south of Southline Avenue would be from Southline Avenue.

### 3.6.2.9 Transportation Demand Management

The proposed project includes a preliminary TDM Plan designed to reduce the project's single-occupancy vehicle trips and parking demand consistent with the goals set forth in the South San Francisco Municipal Code (Chapter 20.400). The TDM Plan is designed to achieve a 45 percent alternative mode share, consistent with City requirements for projects proposing FAR of up to 2.5.

The TDM Plan includes a number of program measures to build upon the proposed infrastructure and on-site facilities, reduce single-occupancy vehicle trips, and meet the required 45 percent alternative mode share target. The specific measures are still preliminary, but are anticipated to include:

- **Direct Access to Transit** – The project's access improvements to the San Bruno BART station and SamTrans Transit Center would enable convenient use of BART and bus service.

<sup>14</sup> Only a portion of Parking Structure C vehicular stalls are anticipated to be used for Phase 1 tenant parking, the full capacity of the Phase 1 portion of Parking Structure C would be constructed during Phase 1 for purposes of construction efficiency and to allow for a portion of the excess spaces to be utilized for temporary construction-related parking for development of Phase 1 and subsequent phases.

- **On-site Amenities for Bicycle and Pedestrian Access.** The project would provide direct, high-quality bicycle and pedestrian connections to and within the Specific Plan area, building entrances, the Centennial Way Trail, existing bicycle circulation on Sneath Lane and San Bruno BART station. The project would provide short-term and long-term bicycle parking spaces in various locations throughout the Specific Plan area, bicycle repair areas, and showers and changing rooms.
- **Shuttle Service to Caltrain** – The TDM Plan would provide first-/last-mile shuttle service to the South San Francisco and/or San Bruno Caltrain stations.
- **Carpooling and Vanpooling Facilities and Services** – Approximately 10 percent of the vehicle parking within the Specific Plan area will be reserved for carpools or vanpools. The TDM Plan would offer ride-matching services for carpools and vanpools users thorough 511.org and/or other programs and provide reserved parking spaces for such vehicles.
- **Mobility Hubs:** The TDM Plan would require incorporation of one or more mobility hubs located within the Specific Plan area to provide dedicated loading zones for alternative mode options, including shuttles, carpool/vanpool, and ride sharing services.
- **Mode Shift Incentives** – The TDM Plan would provide reduced parking supply at a rate that is at least 25 percent less than the City’s typical on-site parking requirements for comparable projects as a means of incentivizing mode shift usage and would require semi-annual employee surveys to evaluate mode choices and best practices.
- **Other TDM program features** – The TDM Plan would include a range of features, such as a on-site amenities including dining, retail fitness and conference facilities; information boards and kiosks located in commercial building lobbies displaying information regarding transit options; a guaranteed ride-home program; at least one mobility hub that would accommodate shuttle, ride share, and other passenger loading; and on-site TDM coordinator(s).

As required by the South San Francisco Municipal Code, the TDM Plan would include requirements for monitoring and auditing the performance of the measures, which may be revised or amended as needed to meet the TDM performance objectives. Implementation of the TDM Plan would be monitored annually and adjusted accordingly, if necessary, in order to meet the required mode-share targets. Leases for all tenants would include provisions regarding the mandatory TDM measures and appointment of a TDM coordinator (which may be shared among multiple tenants).

### 3.6.2.10 Open Space, Landscape, and the Public Realm

The proposed project would provide up to 341,800 square feet (7.8 acres) of open space, including approximately 285,000 square feet (6.5 acres) of irrigated landscape area. The proposed project would remove 162 existing trees, including two protected trees,<sup>15</sup> within the Specific Plan area during Phase 1; approximately 19 additional trees may be removed within the off-site improvement areas. The project would plant 581 new trees (311 during Phase 1 and 270 during future phases), for a total net increase of 419 trees within the project site. Additional trees may be planted in the off-site improvement areas, subject to each city’s tree replacement requirements (South San Francisco Municipal Code Chapter 13.30, San Bruno Municipal Code Chapters 8.24 and 8.25). Selected tree species would be climate appropriate to reduce water use and the need for fertilizer. Tree plantings would also incorporate shade of hardscapes wherever possible to minimize heat island effect and reduce energy use for cooling.

<sup>15</sup> Protected trees are defined by South San Francisco Municipal Code Chapter 13.30.020.

Landscaping and open space within the Specific Plan area would include a network of pedestrian walkways and landscaped edges, “gateway” entries, lobby plazas, and three distinct open space/public realm areas: Southline Commons, the Southline Retail Plaza, and the Tanforan Avenue Community Parklet. Each of these areas is described below. Landscape materials are specified in the design guidelines (refer to Section 3.6.2.6, p. 3-27) and would be complementary to the industrial modern character of the building architecture. The plant palette would include a variety of deciduous and evergreen native and/or adaptive trees, shrubs, ornamental grasses, and groundcover. **Figure 3-24, p. 3-72**, provides a conceptual landscape and open space plan of the Specific Plan area.

The proposed streetscape includes common area elements such as benches, tables, and chairs; litter and recycling receptacles; bicycle storage facilities; and transit shuttle shelters. It also includes exterior lighting and signage. Streetscape materials are specified in the design guidelines (refer to Section 3.6.2.6) and would be complementary to the industrial modern character of the building architecture.

### **Southline Commons**

An approximately 1.5-acre open space area, referred to as Southline Commons, would be developed on the north side of the new Southline Avenue in the northwestern portion of the Specific Plan area. Southline Commons would serve as a public central gathering space within the Specific Plan area. Southline Commons would provide passive and active open space that would serve as an exterior amenity for campus tenants. Southline Commons would include two lounge areas totaling 2,750 square feet, a 7,050-square-foot outdoor dining area with a maximum capacity of up to approximately 197 people, and two activity/recreation areas that would total approximately 3,000 square feet. The outdoor lounge and dining areas would include seating areas, while the activity/recreation areas would include recreational activities such as a bocce ball court, ping pong table, and cornhole. In total, this outdoor area would have an estimated capacity for approximately 320 people. Southline Commons would include a variety of pavers and hardscape elements to create a contemporary and durable outdoor space. Southline Commons would include a varied landscape texture, including shade trees and landscaped berms to create usable edges for sitting that would also serve as green space.

### **Southline Retail Plaza**

The Southline Retail Plaza would front the amenities building (Building 2) on Southline and Huntington Avenues and would be constructed as part of Phase 1. It would be designed to complement and support the adjacent ground-floor retail. It would include outdoor dining areas, terraced seating, and landscaping to serve as both a buffer and transition to the street edge. This outdoor area of approximately 0.32 acres would have an estimated capacity for approximately 130 people.

### **Tanforan Avenue Community Parklet**

The Tanforan Avenue Community Parklet would be developed during Phase 1, comprising approximately 0.5 acre (approximately 25,700 square feet) within an approximately 40-foot buffer setback on the north side of Tanforan Avenue. Intended to provide a transition between the Specific Plan area and the residential neighborhood located to the south, the Tanforan Avenue Community Parklet would be accessible to employees and to the surrounding community, including nearby residents. The Tanforan Community Parklet would incorporate a walking pathway surrounded by

landscaping and would include active and passive recreational features, including a picnic area, a children's play area, a stormwater demonstration garden, and a plant garden. The area would have an estimated capacity for approximately 74 people. The Tanforan Avenue Community Parklet is anticipated to be privately owned and maintained but fully accessible by the public.

### 3.6.2.11 Infrastructure Improvements

Future development within the Specific Plan area would utilize the existing public utility infrastructure located adjacent to the Specific Plan area to the extent feasible. Notwithstanding, the proposed project would require demolition and re-routing of some existing utilities and the construction of new utility infrastructure to serve the project's demand for water, wastewater, storm drain, and dry utility services. Infrastructure and utilities would be designed to meet the standards of the City and other utility agencies with oversight authority. The City would determine required utility connections and improvements during project-level Precise Plan review for each development phase. It is anticipated that the infrastructure improvements below would be required to serve the proposed project. Other limited infrastructure improvements may be required based on final design in coordination with the City and other utility agencies. See also **Table 3-5, p. 3-21**, which summarizes the proposed infrastructure improvements that would be constructed within the off-site improvement areas.

#### Water

As shown in **Figure 4.17-1** in Section 4.17, *Utilities and Service Systems*, the proposed project would require installation of a new public 12-inch water main from South Maple Avenue along the entirety of Southline Avenue to the existing 6-inch water line on South Linden Avenue. This improvement would occur as part of Phase 1. New service connections to existing water lines are anticipated to be constructed along Tanforan Avenue, South Maple Avenue, and South Linden Avenue concurrent with the construction of each building. In addition, a segment of an existing 6-inch water main along South Linden and Dollar Avenues would be relocated to conform with the proposed realignment of that intersection and the proposed reconfiguration of the existing at-grade rail crossing at South Linden Avenue. Other limited infrastructure improvements may be required based on final design in coordination with Cal Water.

#### Wastewater

As shown in **Figure 4.17-2** in Section 4.17, *Utilities and Service Systems*, several public sewer mains that directly serve the Specific Plan area would be upsized during Phase 1 to account for the additional sanitary sewer flow generation. The proposed project would upsize an existing 24-inch main on Tanforan Avenue from South Maple Avenue/Huntington Avenue east to an existing pump station on Shaw Road (FLS-11). The upsized main would range in size from 27 to 33 inches. During Phase 1, the proposed project also would relocate a segment of an existing 8-inch sanitary sewer line along South Linden and Dollar Avenues to conform with the proposed realignment of the intersection and proposed reconfiguration of the existing at-grade rail crossing at South Linden Avenue (refer to Section 3.6.2.7). The proposed project would also install a new 8-inch sewer main to proposed development south to Tanforan Avenue. Sanitary sewer improvements anticipated for future phases include upgrading 18-inch mains to 24-inch mains in the northerly portion of South Maple Avenue and from South Maple Avenue to Lowrie Avenue.

It is anticipated that each building within the Specific Plan area would include at least one new lateral to connect to existing mains. Wastewater would be conveyed via both on-site pump stations

and gravity flow. All improvements would be designed and constructed consistent with City requirements.

## Stormwater

As shown in **Figure 4.17-3** in Section 4.17, *Utilities and Service Systems*, the proposed project would construct new stormwater facilities within the Specific Plan area along a portion of Southline Avenue and Dollar Avenue which would connect to an existing 42-inch storm drain within Tanforan Avenue. These new storm facilities would be constructed as part of Phase 1.

Off-site storm drainage infrastructure improvements would include new storm drain mains constructed within South Linden and Dollar Avenue that would tie into an existing 42-inch main located within Tanforan Avenue. Off-site storm drainage infrastructure improvements would also include the realignment of an existing 42-inch main located within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. These improvements are planned as part of Phase 1.

## Electricity, Natural Gas, and Telecommunications

Cable, phone, gas, and electric infrastructure improvements would be required to adequately serve development within the Specific Plan area. These dry utility infrastructure improvements are anticipated to include undergrounding the existing overhead utilities along the immediate street frontages, as conditioned by the City or otherwise required by the respective utility provider.

Where feasible, new dry utilities improvements would be located underground and in building service areas. Above-ground facilities would be screened from view utilizing landscaping and/or other appropriate screening methods. The extent and timing of dry utility improvements would be determined for each phase as part of the Precise Plan review.

### 3.6.2.12 Sustainability Features

The proposed project would incorporate sustainability features to reduce energy consumption, water consumption, and waste generation. All phases of the Project, including Phase 1, would be capable of achieving a minimum Leadership in Energy and Environmental Design (LEED) version 4 Silver rating. Examples of the proposed sustainability measures include water-efficient devices (i.e., plumbing fixtures, appliances, and cooling equipment); water-efficient landscaping practices, such as landscaping with native drought-tolerant plants; all-electric energy sources to the extent feasible (and high-efficiency units for any new natural gas appliances); passive design strategies to minimize reliance on active heating and cooling systems; energy-efficient heating, ventilation, and air-conditioning (HVAC) systems and equipment; on-site recycling and composting facilities; and electric vehicle charging infrastructure (at least ten percent of on-site parking spaces would be installed with electric vehicle charging infrastructure). The Specific Plan requires that the project utilize 100 percent carbon-free electricity for all operational electricity needs through participation in programs such as PG&E Solar Choice or Peninsula Clean Energy. Proposed design elements, such as connectivity with surrounding transportation options (i.e., BART and Caltrain), bicycle parking, and TDM measures (refer to **Section 3.6.2.9, p. 3-32**), would encourage alternative transportation modes. The project would be designed to be consistent with the City's Climate Action Plan (CAP), the South San Francisco Municipal Code, and the 2019 California Green Building Standards Code, commonly referred to as CALGreen. For construction and demolition, 100 percent of all inert solids

(building materials) and 65 percent of non-inert solids (all other materials) would be recycled as required by the City under Chapter 15.60 of the South San Francisco Municipal Code.

The proposed project would also be designed to conserve resources and protect water quality through the management of stormwater runoff through low-impact development (LID) methods, where feasible. This approach implements engineered controls to allow stormwater filtering, storage, and flood control. Bioretention basins, flow through planters, pervious permeable pavements, and other site design features intended to manage stormwater runoff flows from the Specific Plan area and reduce stormwater pollution would be located throughout the Specific Plan area. The project would also use non-LID treatment measures allowed for “Special Projects” under the San Francisco Bay Municipal Regional Stormwater Permit (MRP) where LID treatment is not feasible, as discussed in 4.9, *Hydrology and Water Quality*, of this EIR. Special Projects include certain land development characterized as smart growth, high density, or transit-oriented development. Special Projects can receive LID treatment reduction credits in recognition that density and space limitations may make 100 percent LID treatment infeasible.

### 3.6.2.13 Construction

Although the construction characteristics of individual Precise Plan proposals within the Specific Plan area would vary, generally, buildout of the proposed project would involve demolition, grading, excavation, and construction activities to build new structures and subterranean parking garages and install the 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 according to the stage of construction and whether or not construction phases are undertaken concurrently. Construction trucks would primarily travel along the following two haul routes: to/from I-380 via El Camino Real, South Spruce Avenue, Victory Avenue, and South Maple Avenue; and to/from U.S. 101 via South Airport Boulevard, San Mateo Avenue, and South Linden Avenue. Although not planned for use, this EIR analysis also considers the potential for haul trucks to travel to/from I-280 via Huntington Avenue and Sneath Lane.

All existing structures and trees on the Specific Plan area would be removed during Phase 1, totaling approximately 343,800 square feet of building demolition and 162 tree removals. Up to 16 additional tree removals may be required in the off-site improvement areas. The future phase areas would be used for construction worker parking and equipment staging during construction of Phase 1. The proposed project would require major grading and excavation to construct the new subterranean parking garages up to a depth of 31 feet below grade level. The off-site improvements would require trenching depths of approximately 3 to 9 feet below grade level. An estimated 32.96 acres of ground area would be disturbed, requiring a total excavation of approximately 688,400 cubic yards of soil under the Office Scenario and 353,700 cubic yards of soil under the Life Science scenario, the majority of which is anticipated to be hauled off the Specific Plan area, although these figures are inclusive of the off-site improvement areas. The proposed project would divert 100 percent of inert solids (building materials) and 65 percent of non-inert solids (all other materials) from landfills through recycling or reuse on-site as required by the City under Chapter 15.60 of the South San Francisco Municipal Code and under state CALGreen requirements.

Construction dewatering would be required for certain site preparation and subterranean construction within the Specific Plan area associated with excavation for the subterranean garages. Groundwater dewatering would only be required for major excavations in Specific Plan Area and only in the South San Francisco jurisdiction. Dewatering would not be required for construction in

off-site improvement areas. Phase 1 and future development under the Specific Plan would be required, as conditions of approval, to comply with recommendations contained in the *Southline Development Design-Level Geotechnical Investigation* (Design-Level Geotechnical Investigation) prepared for the proposed project by Cornerstone Earth Group in July 2020 (**Appendix 4.6-1**) and grading permit requirements. The Design-Level Geotechnical Investigation recommends that excavations less than 30 feet deep be supported by soldier beams and tiebacks, sheet piles, or soil mixed walls with internal bracing or tiebacks, or other methods. To prevent lateral groundwater seepage, the Design-Level Geotechnical Investigation recommends that excavations greater than 30 feet deep be shored with less pervious walls consisting of soldier pile tremie concrete (SPTC) or mixed-in-place soil/cement. Generally, groundwater trapped in soils would be removed by standard dewatering wells; however, sump pumping would be required to dewater saturated soil if fine grained soils are present. All subterranean parking garages would be waterproofed and would not require permanent dewatering systems.

### 3.6.3 Phase 1 Project Characteristics

As shown in **Figure 3-9, p. 3-55**, Phase 1 would involve the demolition of all existing uses within the Specific Plan area and the construction of all new development south of Southline Avenue, as described below. Phase 1 would also include construction of the eastern wing of Parking Structure C, the above-grade parking structure north of Southline Avenue. Phase 1 would include most of the proposed infrastructure, circulation, roadway, and pedestrian improvements described in **Section 3.6.2.7, p. 3-28**, and **Section 3.6.2.11, p. 3-35**, including:

- Construction of Southline Avenue and associated underground utility infrastructure;
- Realignment of Dollar Avenue and South Linden Avenue;
- Reconfiguration of the existing at-grade rail crossing at South Linden Avenue;
- Roadway and pedestrian improvements along Tanforan Avenue;
- Roadway and pedestrian improvements along Huntington Avenue from Southline Avenue south to the BART garage intersection;
- Upgrade to the existing signalized intersection at Huntington Avenue/BART garage entry;
- Signalized northbound left turn lane on Huntington Avenue providing a new entrance into the transit center for SamTrans buses;
- Construction of new signalized intersections at:
  - Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue
  - Southline Avenue/Main Campus Entry
  - South Linden Avenue/Dollar Avenue/Southline Avenue
- Water, sewer, and storm infrastructure replacements in Tanforan Avenue, Shaw Road, South Linden Avenue, Dollar Avenue, and Huntington Avenue

The 16.96-acre Phase 1 site is shown in **Figures 3-2 and 3-9, pp. 3-48 and 3-55**. The following discussion provides additional detail regarding Phase 1.

### 3.6.3.1 Phase 1 Buildings

Phase 1 includes construction of Building 1, Building 2, Building 7, and a portion of Parking Structure C—namely, the long, eastern portion of the “L-shaped” campus parking structure. Building 2, the amenities building, would be located at the corner of Southline and Huntington Avenues and would provide a public entry point to the Specific Plan area, with access to the San Bruno BART station located across the street. Building 1 and Building 7, the office buildings, would be located east of Building 2. **Table 3-10**, below, provides a summary of the key characteristics of the Phase 1 buildings. Detailed land use breakdowns are provided in Section 3.6.2.2. **Figure 3-25, p. 3-73** illustrates the proposed Phase 1 site plan. Building sections are shown in **Figure 3-26, p. 3-74**. The subterranean parking levels shown in the building sections are based on a parking ratio of 2.2 spaces per 1,000 square feet, the maximum (worst-case) parking configuration (refer to Section 3.6.2.8).

**Table 3-10 Phase 1 Building Summary**

Feature	Building 1	Building 2 (Amenities Building)	Building 7	Parking Structure C (Eastern Wing)
Maximum Building Area (sf)	317,495	88,200	295,220	1,490 spaces <sup>a</sup>
Proposed Use	Office	Retail/Dining: 16,400 Cafeteria: 9,000 Fitness Center: 49,000 Auditorium/Other: 13,800	Office	Parking
Building Height (feet) <sup>b</sup>	113	60	113	90 to top of parapet, 104 to top of elevator tower
Number of Stories	6	4	6	9

<sup>a</sup> Although only a portion of Parking Structure C vehicular stalls are anticipated to be used for Phase 1 tenant parking (approximately 205 stalls), the full capacity of the Phase 1 portion of Parking Structure C, as shown in **Figure 3-25, p. 3-73**, could be constructed during Phase 1 for purposes of construction efficiency. The portion of the excess spaces not required for Phase 1 use would be utilized for temporary construction-related parking for development of Phase 1 and subsequent phases.

<sup>b</sup> Building heights measured in accordance with Zoning Ordinance, 20.040.005 *Measuring Height*, and 20.300.006 – *Height and Height Exceptions*.

#### Building 1 (Office Building)

The ground floor (Floor 1) of Building 1 would include a lobby, electrical and utility rooms, service elevators, tenant office space, and access to an elevator. Floors 2 through 6 would be used for tenant office space. The roof would include a mechanical penthouse, which would make up one-third of the roof area; mechanical equipment space; and a mechanical screen. **Figure 3-27, p. 3-75**, shows the Level 1 and Level 2 floor plans for Building 1. Other upper levels would resemble Level 2. **Figure 3-28, p. 3-76**, shows representative elevations for the proposed building (south and east). Final floor plan configurations would be subject to Precise Plan review by the City.

## Building 7 (Office Building)

Building 7 would be nearly identical in interior setup as Building 1. The ground floor (Floor 1) of the proposed building would include a lobby, tenant space, electrical and utility rooms, a service elevator, and separate elevator lobby. Floors 2 through 6 would be identical in layout and would include tenant space. Like Building 1, the roof of Building 7 would include a penthouse, making up one-third of the roof area; mechanical equipment space; and a mechanical screen. **Figure 3-28, p. 3-77**, shows the Level 1 and Level 2 floor plans for Building 7. Other upper levels would resemble Level 2. **Figure 3-29, p. 3-78**, shows representative elevations for the proposed building (south and east). Final floor plan configurations would be subject to Precise Plan review by the City.

## Building 2 (Amenities Building)

The ground floor (floor 1) of Building 2, the amenities building, would include an electrical room, bike kiosk, various retail spaces, bicycle parking, vehicle parking spaces, and an entry to the event space and fitness center lobby. Floor 2 would open up to the uses on Floor 1 and would include another level of podium (above-grade) vehicle parking spaces. Floor 3 would comprise a catering kitchen, café, two flexible meeting rooms, the entrance to the fitness center and lobby lounge, a basketball court, an administrative center/front desk, a utility room, two locker rooms, and a terrace garden. Floor 4 would include storage space, a game room, an open fitness area (including weight and cardio space), a flex fitness room, and a 680-seat auditorium with a stage. The roof would include mechanical equipment space and a mechanical screen. **Figure 3-31, Figure 3-32, and Figure 3-33, pp. 3-79 through 3-81**, show the Level 1, Level 3, and Level 4 floor plans for Building 2, respectively. **Figure 3-34, p. 3-82**, shows the elevations for the proposed building. Final floor plan configurations would be subject to Precise Plan review by the City.

## Service and Loading Areas

Two service and loading yards would be constructed northeast and southwest of the proposed Building 1 and Building 7. The yards would be screened by 8- to 11-foot-tall screens or walls composed of materials that would be compatible with the architecture of the proposed buildings. The yards would contain emergency generators and trash enclosures. Phase 1 would include up to four 1,250-kilowatt diesel generators and one 500-kilowatt diesel generator equipped with sound-attenuating enclosures. The generators would be required to meet Bay Area Air Quality Management District permitting requirements for stationary sources. Periodic testing of the generators would be completed per National Fire Protection Association guidelines; testing is anticipated to consist of a minimum of 30 minutes of monthly testing per generator. However, it is likely that a weekly physical inspection and monthly load test would be conducted on each generator and phased over 1 to 3 days. In addition, every 36 months, the generators would run a 4-hour continuous test at a load of 100 percent. Other than testing, the generator would operate only during emergencies.

Building 1 would include two loading docks, with one loading dock intended for Building 1 tenant use and the second intended to serve Building 2. Building 7 would include one loading dock, which would accommodate weekly trash and recycling pickups, daily deliveries (e.g., FedEx, postal service), building equipment servicing (e.g., PG&E meter inspections), and occupants while moving in/moving out. In addition, all major HVAC equipment that would serve the proposed buildings would be located on the roof in a screened enclosure or in the rooftop penthouse for the chiller, boiler, and cooling towers. The screened enclosure would comprise metal panels as an extension of the building.

### 3.6.3.2 Phase 1 Site Access, Circulation, and Parking

#### Phase 1 Site Access

Existing vehicular access via Dollar Avenue, Linden Avenue, Tanforan Avenue, and Maple Avenue would be retained. As described in **Section 3.6.2.7**, Phase 1 would include the construction of a new roadway, Southline Avenue, on to which Buildings 1, 2, and 7 would front. The new Southline Avenue would connect Maple Avenue to Linden/Dollar Avenues. In addition, two new intersections would be constructed at Huntington Avenue/Sneath Lane/Maple Avenue and Southline Avenue and mid-block within the Specific Plan area at Southline Avenue and the Central Project Driveway. The existing intersection at South Linden and Dollar Avenues would also be realigned to connect to the new Southline Avenue. Emergency vehicle access to Building 1 and Building 2 would be provided by Tanforan Avenue and Southline Avenue, access to Building 7 would be provided by Dollar Avenue, and access to Parking Structure C would be provided by South Linden Avenue. In addition, Building 1 and Building 7 would include fire command rooms.

#### Phase 1 Vehicle and Bicycle Parking

Phase 1 would include construction of a total of approximately 2,664 parking spaces, including 1,490 parking spaces in Parking Structure C and 1,154 parking spaces in the parking structures south of Southline Avenue. Phase 1 includes development of only a portion of Parking Structure C—namely, the long, eastern portion of the “L-shaped” campus parking structure. Although only a portion of Parking Structure C vehicular stalls are anticipated to be used for Phase 1 tenant parking, the full capacity of the Phase 1 portion of Parking Structure C, as shown in **Figure 3-25, p. 3-73**, could be constructed during Phase 1 for purposes of construction efficiency. The portion of the excess spaces not required for Phase 1 use would be utilized for temporary construction-related parking for development of Phase 1 and subsequent phases. The parking spaces located in the parking structures south of Southline Avenue would include 1,034 below-grade spaces located under Building 1, Building 2, and Building 7 and 120 above-grade spaces in Building 2. Approximately 15 additional surface parking spaces would be located south of Southline Avenue. Of the total parking spaces, Phase 1 would include approximately 31 ADA-compliant accessible spaces and 10 percent of total Phase 1 parking (approximately 83 stalls) will be electric vehicle charging ready spaces.

Phase 1 would include 18 short-term bicycle parking spaces and 188 long-term bicycle parking spaces, as shown in **Table 3-8** and **Table 3-9, pp. 3-54 and 3-55**. The short-term bicycle parking spaces would be provided near the entries of the three proposed buildings. The long-term bicycle parking spaces would be provided in the below-grade parking structures beneath the three buildings. In addition, the proposed fitness center would include showers and clothes locker facilities.

#### Phase 1 Circulation

As described in **Section 3.6.2.7** and shown in **Figure 3-16, p. 3-62**, vehicular circulation within the Specific Plan area would include the roadways that are located within the Specific Plan area and provide connectivity to the adjacent areas. Vehicle circulation would include the new public Southline Avenue roadway that would provide connectivity through the Specific Plan area as well as internal private roadways that would provide access to parking, loading, and building areas within the Specific Plan area.

New pedestrian walkways and bicycle paths would be incorporated throughout the Phase 1 site. New sidewalks would be located along both sides of Southline Avenue, Maple Avenue, Linden Avenue, Tanforan Avenue, and Dollar Avenue. In addition, walkways would be provided between the three proposed buildings, Parking Structure C, and along the Building 2 street frontages. Similarly, new bike lanes would be included along Southline Avenue and Maple Avenue, providing connections to the Centennial Way Trail. Landscaping, signage, and lighting would be included along the sidewalks and pedestrian pathways, as discussed in **Section 3.6.2.7, p. 3-28**.

### **3.6.3.3 Phase 1 Site Landscaping and Open Space**

Phase 1 would include approximately 128,440 square feet (approximately 3 acres) of open space, including the Southline Retail Plaza and Tanforan Avenue Community Parklet described in Section 3.6.2.10, p. 3-33. Upon Phase 1 site completion, approximately 18 percent of the Phase 1 site would be covered with pervious surfaces, and 82 percent of the Phase 1 site would be covered with impervious surfaces. As discussed in Section 3.6.2.10, all 162 trees within the Specific Plan area would be removed during Phase 1, including two protected trees. Approximately 19 trees may be removed within the off-site improvement areas during Phase 1. Phase 1 would plant 311 trees within the Phase 1 site. Additional trees may be planted in the off-site improvement areas during Phase 1, subject to each city's tree replacement requirements (South San Francisco Municipal Code Chapter 13.30, San Bruno Municipal Code Chapters 8.24 and 8.25).

Phase 1 would include both private and public outdoor open space. The third floor of Building 2, the amenity building, would include a private 5,900-square-foot outdoor terrace that would provide both dining and lounge areas. Public open space would be provided in the form of the Southline Retail Plaza, sidewalk frontages, and the Tanforan Avenue Community Parklet, described in Section 3.6.2.10, p. 3-33. The Southline Retail Plaza and sidewalk frontage would be located along the western and northern border of Building 2 and would provide approximately 4,600 square feet of dining space for up to 130 people as well as landscaping along the sidewalks. The Phase 1 buildings would be setback from Tanforan Avenue by 40 feet to allow for development of the Tanforan Avenue Community Parklet, which is further described in Section 3.6.2.10.

Phase 1 would include 10 biotreatment areas (e.g., planting areas) that would be distributed throughout the three proposed building areas. The biotreatment areas would total approximately 10,953 square feet. In addition, Phase 1 would include new perimeter landscaping. In total, Phase 1 would include approximately 92,647 square feet of planted landscaped areas (not accounting for the proposed biotreatment areas) and 103,600 square feet of irrigated landscape inclusive of bioretention areas. A conceptual landscape plan for Phase 1 is provided in **Figure 3-35, p. 3-83**.

### **3.6.3.4 Phase 1 Building Design**

The proposed Phase 1 buildings would reflect the design guidelines described in Section 3.6.2.6. The buildings would be constructed of contemporary materials, such as high-performance vision glass, terra cotta tile, corrugated metal panels, ribbed metal panels, and metal trim and trellises. The architectural style would include both vertical and horizontal elements (see **Figures 3-12 through 3-14, pp. 3-58 through 3-60**), massing breaks, building openings, and wall planes that would combine architectural and landscaping features. In addition, signage and lighting would be included at building entrances, along walkways, and in parking lots. Conceptual renderings of Phase 1 are shown in **Figure 3-14, p. 3-60** (Building 2), and **Figure 3-15, p. 3-61** (Buildings 1 and 7). The conceptual renderings are intended to demonstrate an illustrative example of the buildings

and open space areas, based on the development standards and design guidelines set forth in the Specific Plan, and should not be considered definitive.

### **3.6.3.5 Phase 1 Infrastructure**

Phase 1 would be served by existing water, sanitary sewer, and storm drain facilities fronting the project site and would construct new lateral connections to connect to existing pipes to the extent feasible. Phase 1 would also construct the following infrastructure improvements, as shown in **Table 3-5, p. 3-21**, and described in Section 3.6.2.11: install a new 12-inch water main in Southline Avenue, relocate a segment of an existing 6-inch water main along South Linden and Dollar Avenues, upsize an existing 24-inch sewer main on Tanforan Avenue, relocate a segment of an existing 8-inch sanitary sewer line along South Linden and Dollar Avenues, construct new storm drain mains in South Linden and Dollar Avenues, and realign an existing 42-inch storm drain main in Huntington Avenue.

### **3.6.3.6 Phase 1 Sustainability Features**

The sustainability features for Phase 1 would be consistent with those described in Section 3.6.2.12 for the proposed project.

### **3.6.3.7 Phase 1 Construction**

Construction of Phase 1 is anticipated to commence in Q1 2022 and end in Q3 2024, lasting approximately 30 months. Phase 1 would include the following construction stages, which may overlap: (1) abatement and demolition; (2) site preparation; (3) grading, road, and intersection construction; (4) Building 2 construction; (5) Building 1 construction; (6) Building 7 construction; (7) Parking Structure C construction (partial, as described above); and (8) landscape improvements.

The hours of construction would be stipulated by the City Building Division, and the project contractor would be required to comply with Section 8.32.050 of the South San Francisco Municipal Code (the South San Francisco Noise Ordinance), which includes regulations related to noise generated by construction.

Phase 1 construction would typically occur Monday through Saturday between 7:00 a.m. and 5:00 p.m., with most noise-generating construction beginning at 8:00 a.m. During the 7:00 a.m. to 8:00 a.m. hours, workers would arrive, equipment and materials would be rolled out, and pre-task planning for the work day would take place. Approximately 18 instances of nighttime construction work would occur for concrete pours; such nighttime construction would begin approximately at 5:00 a.m. and be completed by 8:00 p.m. These pours would not take place on back-to-back nights. Equipment for these activities could be located within 100 feet from the residences located south of Tanforan Avenue. Construction is not anticipated to occur on major legal holidays. Nighttime construction work would require a permit from the City and be subject to additional noise restrictions pursuant to Section 8.32.050(d) of the South San Francisco Municipal Code.

Construction materials and equipment would be staged entirely within the Specific Plan area, in areas where construction is not occurring. Construction workers would park on the future phase area and in the portions of Parking Structure C not utilized by Phase 1 tenants. Temporary road closures would be required for the construction of the Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue intersection, which would affect the public right-of-way during construction. In addition, temporary sidewalk rerouting on Tanforan Avenue and Maple Avenue may be expected. Roadway traffic control would be used as needed during construction.

### **Demolition, Site Grading and Preparation**

For purposes of this EIR analysis, it is assumed that all existing structures within the Specific Plan area would be demolished during Phase 1 construction, along with demolition and removal of all existing paving and hardscape within the approximately 11.93-acre Phase 1 portion of the Specific Plan area. The EIR assumes that the remaining paving and hardscape located within the other portions of the Specific Plan area would remain intact during Phase 1 construction in part to provide construction staging areas.

The proposed buildings and parking structure would be constructed on shallow mat slab foundations. Drilled cast-in-place piles would be required; no pile-driving would occur. Demolition of all existing uses on the Specific Plan area during Phase 1 would generate approximately 92,636 cubic yards of demolished material. Phase 1 would require grading or disturbing an area of approximately 740,000 square feet during construction. Phase 1 would excavate approximately 293,000 cubic yards of soil to a depth of up to 31 feet below grade level. These estimates include work within the off-site improvement areas. The off-site improvements would require trenching depths of approximately 3 to 9 feet below grade level. Excavated soil that would not be reused as fill on-site would be exported to a nearby dump in accordance with applicable regulations. To accommodate utility trenches, Phase 1 would require a maximum depth of excavation reaching approximately 9 feet below grade surface. Construction activities for Phase 1 would result in a maximum of approximately 216 daily construction truck trips during the most intensive construction stage and a maximum of approximately 558 daily construction workers. Construction trucks would primarily travel along the two haul routes described in Section 3.6.2.13 (with a third haul route also considered in this EIR analysis, as described in Section 3.6.2.13). Given that the depth to groundwater at the project site ranges from approximately 8 to 27 feet bgs (see Section 3.3.3, p. 3-4), dewatering would be required during Phase 1 construction. Refer to Section 3.6.2.13 for details regarding excavation shoring and construction dewatering. For construction and demolition, 100 percent of all inert solids (building materials) and 65 percent of non-inert solids (all other materials) would be recycled as required by the City under Chapter 15.60 of the South San Francisco Municipal Code.

## **3.7 Required Governmental Approvals**

Implementation of the proposed project requires approval of certain entitlements and approvals from the City and other agencies. Entitlements and approvals subject to City review and approval that are anticipated for implementation of the proposed Specific Plan and off-site improvements include:

- Adoption of the Southline Specific Plan, which will operate as the zoning for the Specific Plan area;
- General Plan amendments to reflect adoption of the Specific Plan, including amending the allowable building height for the Specific Plan area and re-designating the approximately 0.3-acre parcel designated as Parks and Recreation to Office;
- Zoning map and zoning text amendments to reflect adoption of the Specific Plan and to implement the Southline Campus (S-C) District zoning;
- Vesting Tentative Map approval for reconfiguration of the parcels and dedicating public roadways and easements;

- Preliminary TDM Plan approval;
- Development Agreement; and
- Any additional actions or permits deemed necessary to implement the Specific Plan and off-site improvements, including demolition, grading, foundation, and building permits; public encroachment permits; any permits or approvals required for extended construction hours; tree removal permits; and other additional ministerial actions, permits, or approvals from the City that may be required.

Approvals specific to Phase 1, some of which are anticipated to occur concurrently with the project-wide approvals described above or thereafter, include:

- Precise Plan approval subject to the terms and policies of the Specific Plan;
- Final Map approval;
- Design Review approval;
- Master Sign Program approval;
- Final Phase 1 Transportation Demand Management Plan approval;
- Any additional actions or permits deemed necessary to implement Phase 1, including demolition, grading, foundation, and building permits; public encroachment permits; any permits or approvals required for extended construction hours; tree removal permits; and other additional ministerial actions, permits, or approvals from the City that may be required.
- Development of subsequent phases within the Specific Plan area would require certain additional approvals similar to the list provided for Phase 1 above, some of which may depend on the specific nature of the proposed development for that phase (e.g., a use permit for conditionally permitted uses).

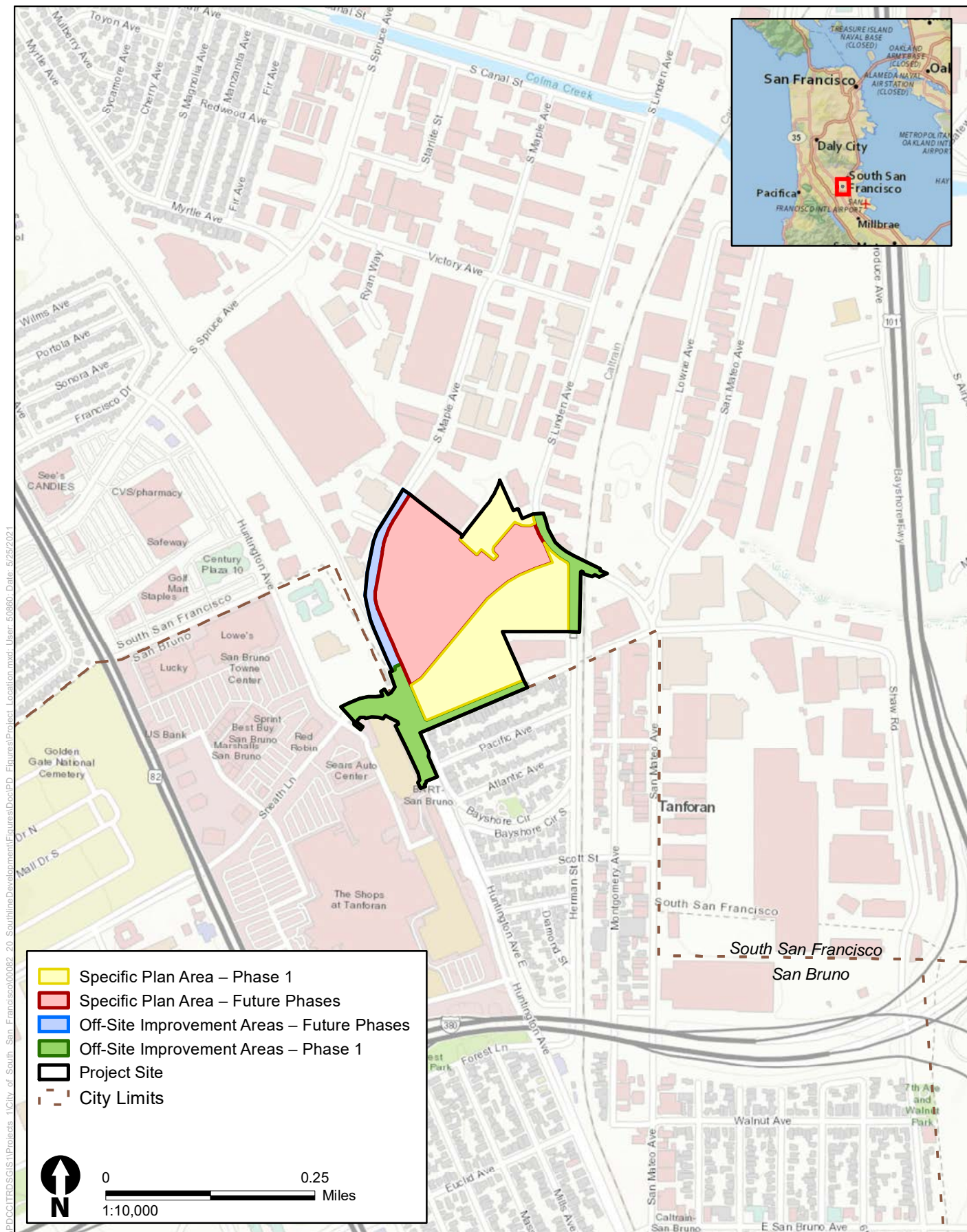
This EIR is also intended to provide CEQA clearance for approvals that may be required from the City of San Bruno to implement the off-site improvements, which would be subject to San Bruno's discretion and could include:

- General Plan Amendment for construction of the Huntington Avenue/Southline Avenue intersection;
- Improvement and Maintenance Agreement;
- Encroachment Permit for work performed within the right-of-way;
- Street tree removal permit(s); and
- Any additional actions or permits deemed necessary to implement the off-site improvements within the City of San Bruno's jurisdiction.

This EIR is also intended to provide CEQA clearance for approvals that may be required from other agencies, which could include:

- Bay Area Rapid Transit District
  - Permit to Enter;
  - Encroachment permit; and

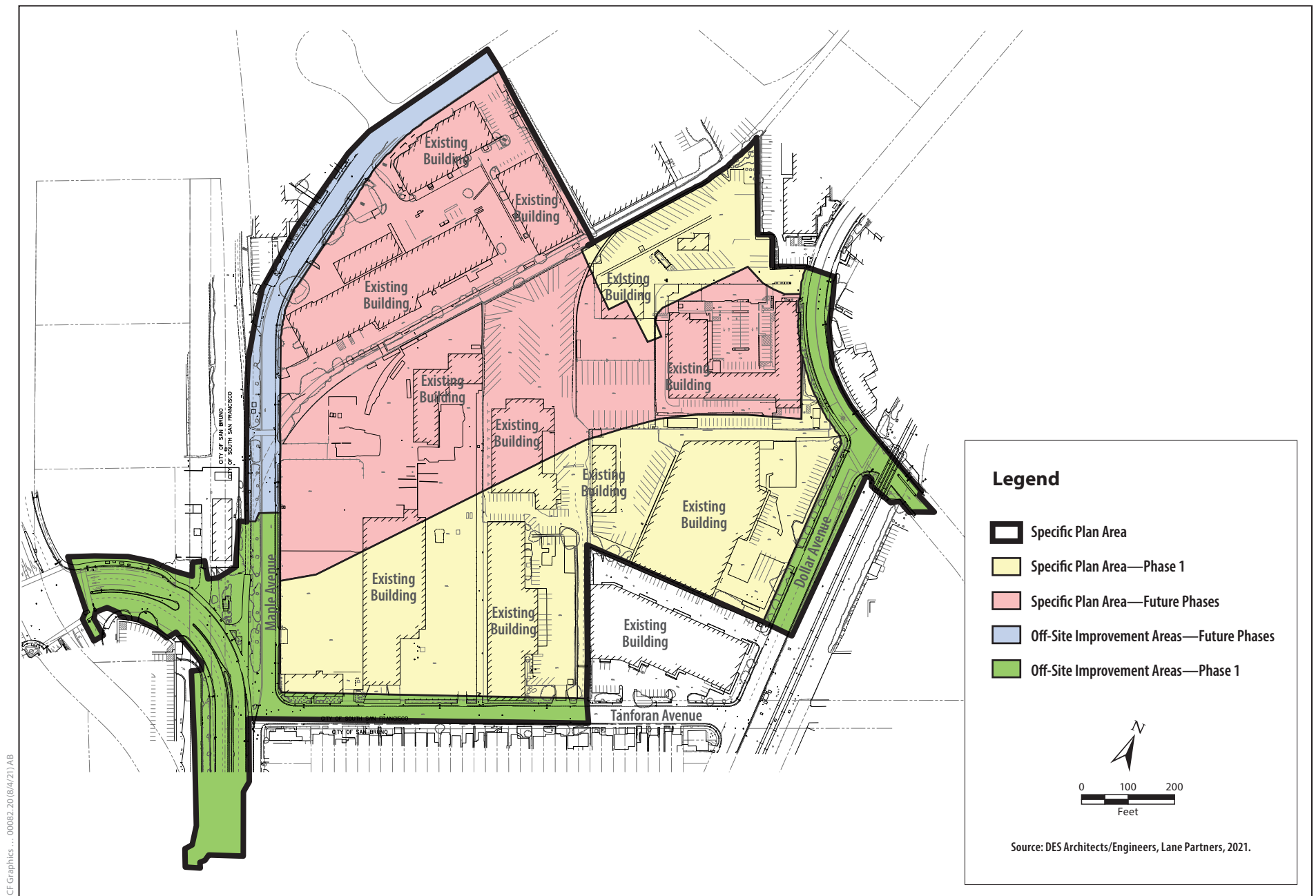
- Any additional actions or permits deemed necessary to implement the off-site improvements on BART property
- Peninsula Corridor Joint Powers Board (Caltrain owner/operator) for any actions or permits deemed necessary to implement the off-site improvements affecting its facilities
- California Public Utilities Commission for any actions or permits deemed necessary to implement the off-site improvements affecting its facilities
- 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 or similar equipment
- City/County Association of Governments Airport Land Use Commission
  - Determination of consistency with the Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport
- Federal Aviation Administration
  - Notice of Proposed Construction and Alteration and FAA Determination per Code of Federal Regulations Title 14, Part 77.9

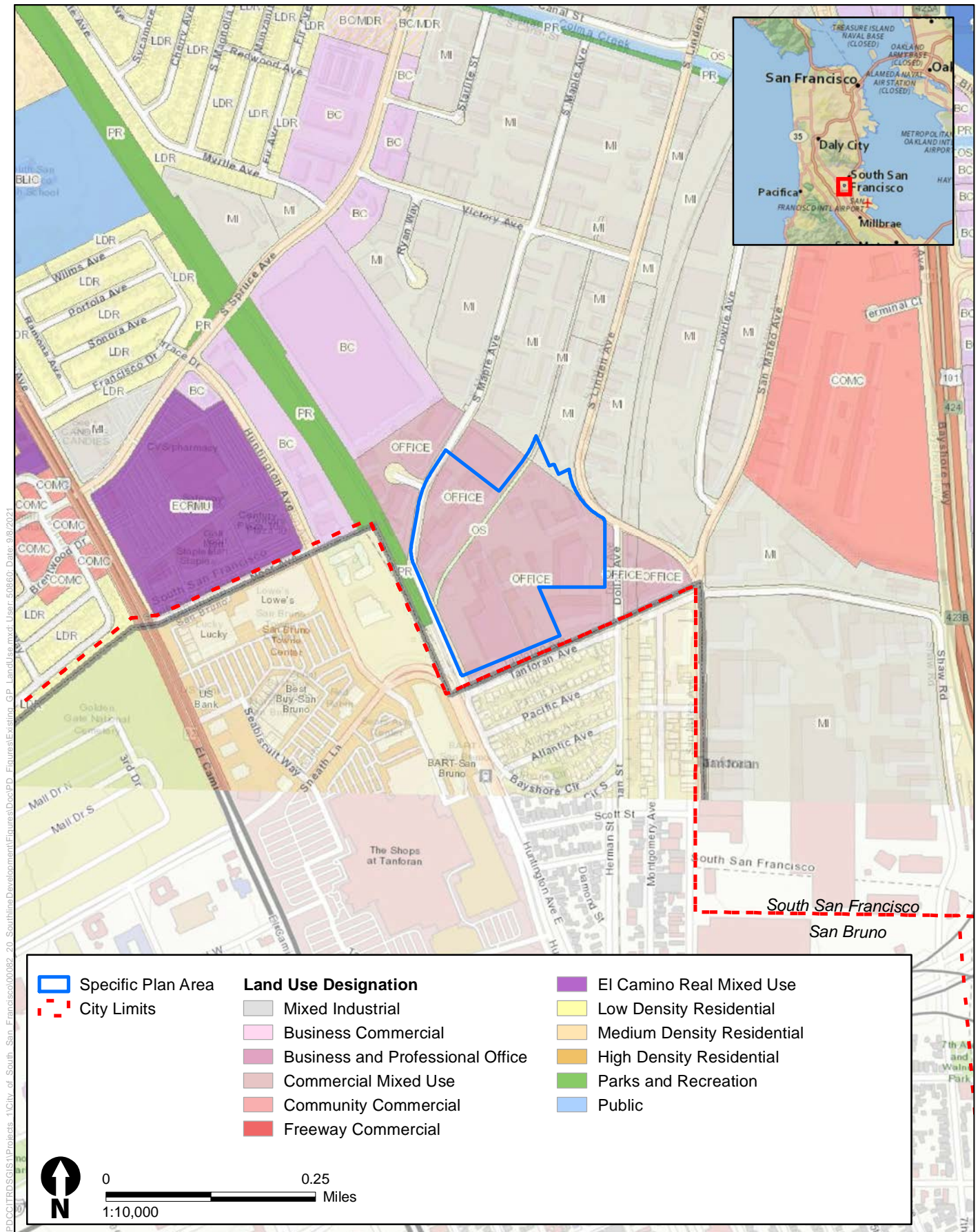


**Figure 3-1**  
**Project Location Map**

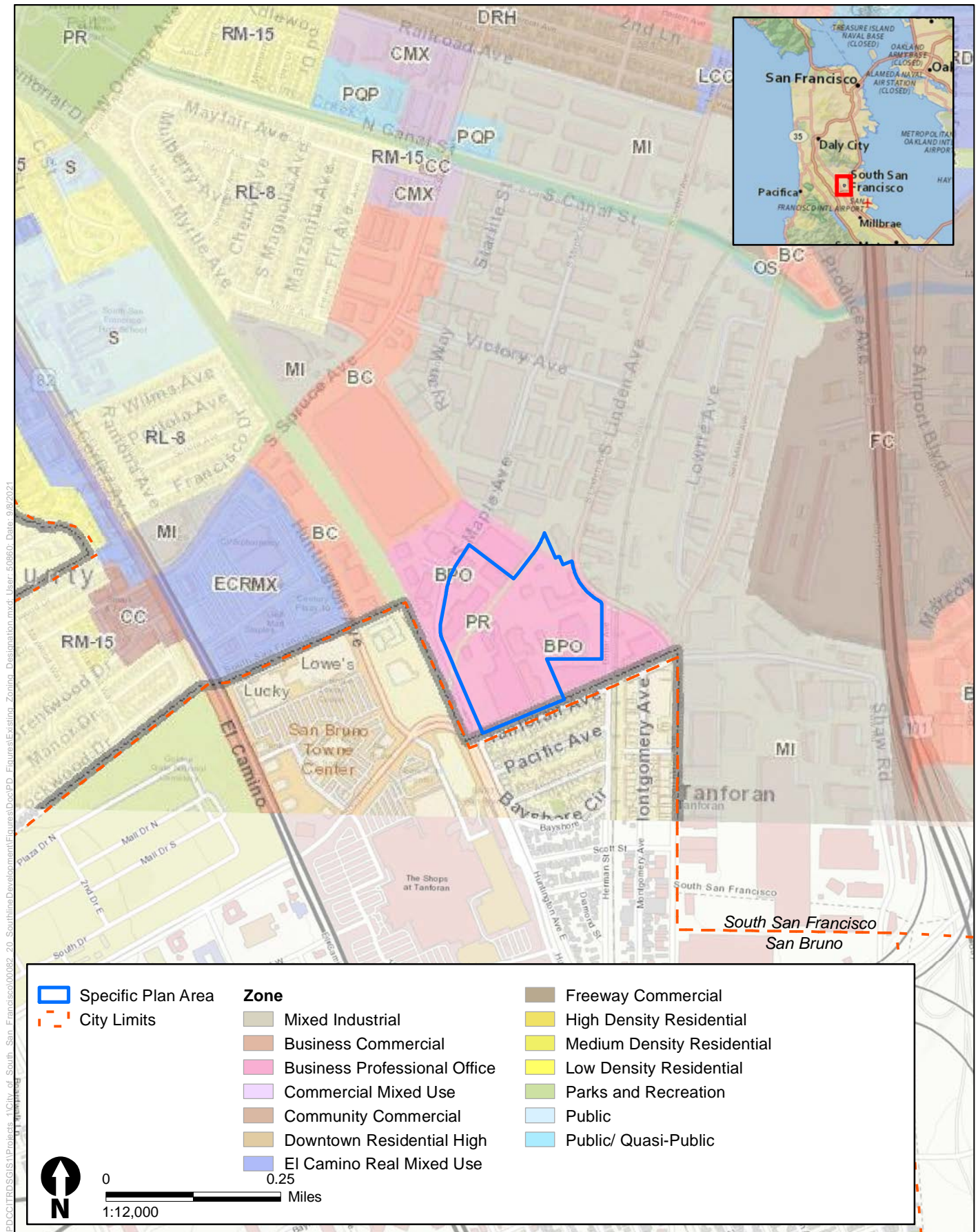


**Figure 3-2**  
**Aerial Photograph**

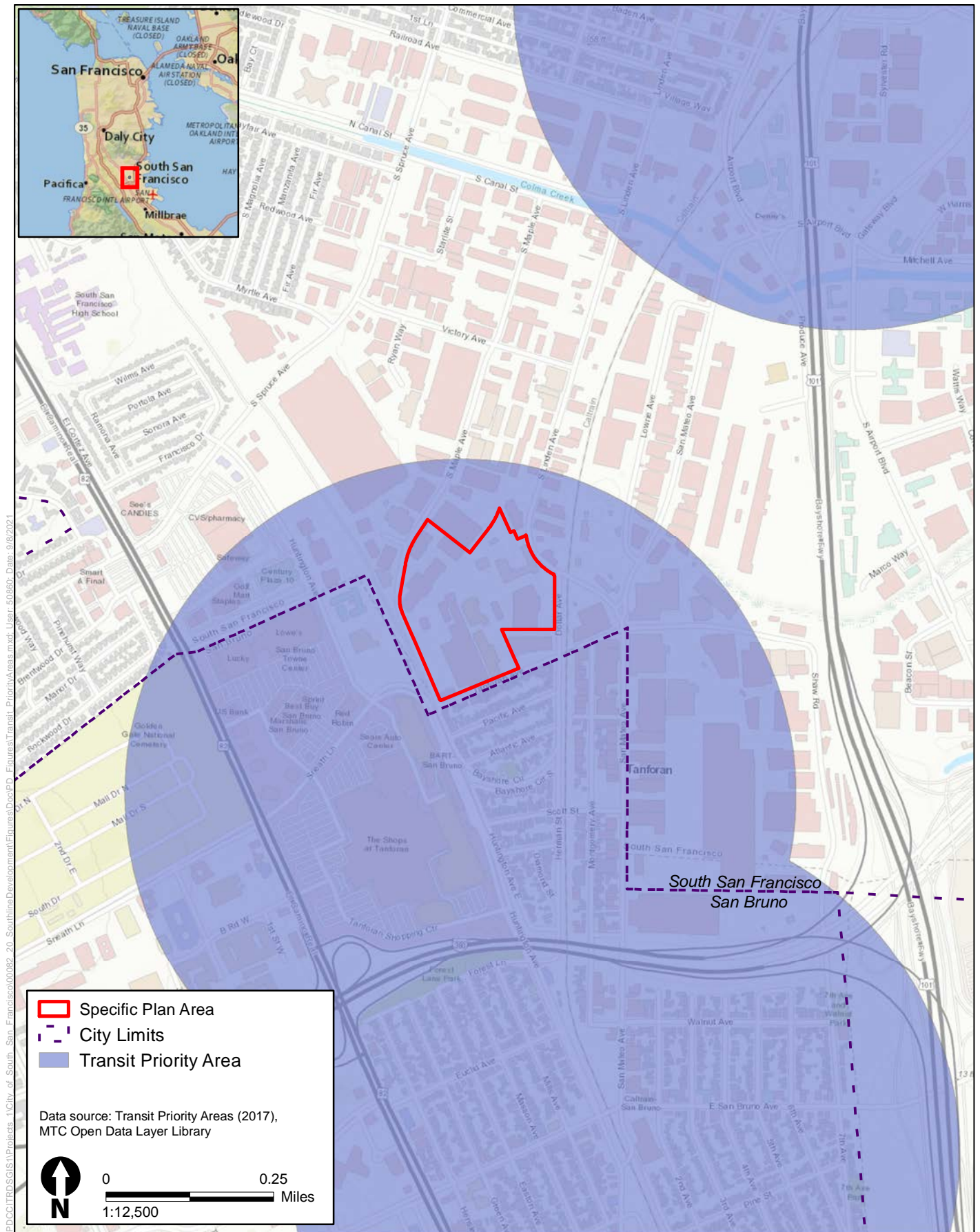




**Figure 3-4**  
**Existing General Plan Land Use Designation**



**Figure 3-5**  
**Existing Zoning Designation**



**Figure 3-6**  
**Transit Priority Area Map**

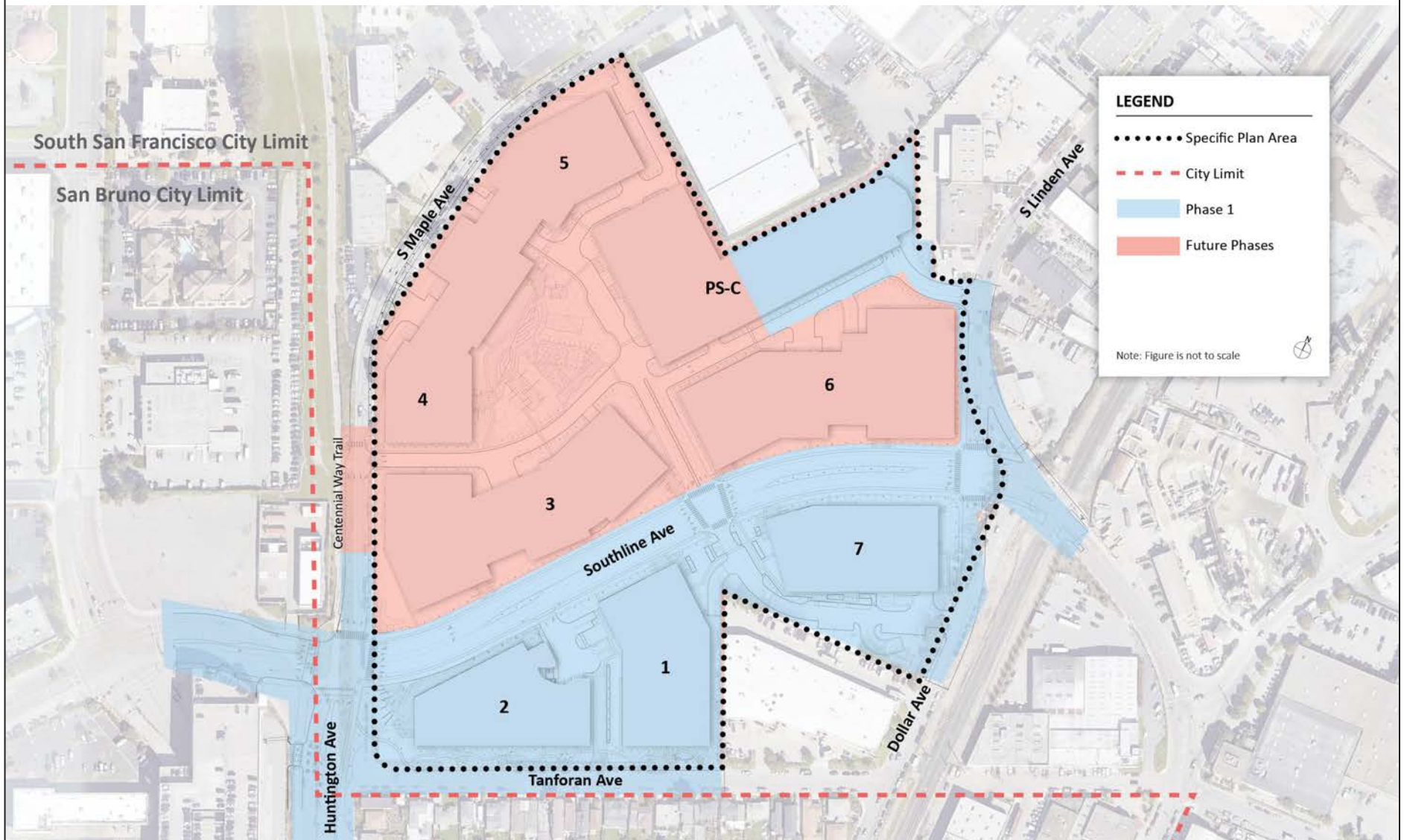


Source: Kimley Horn, 2021.

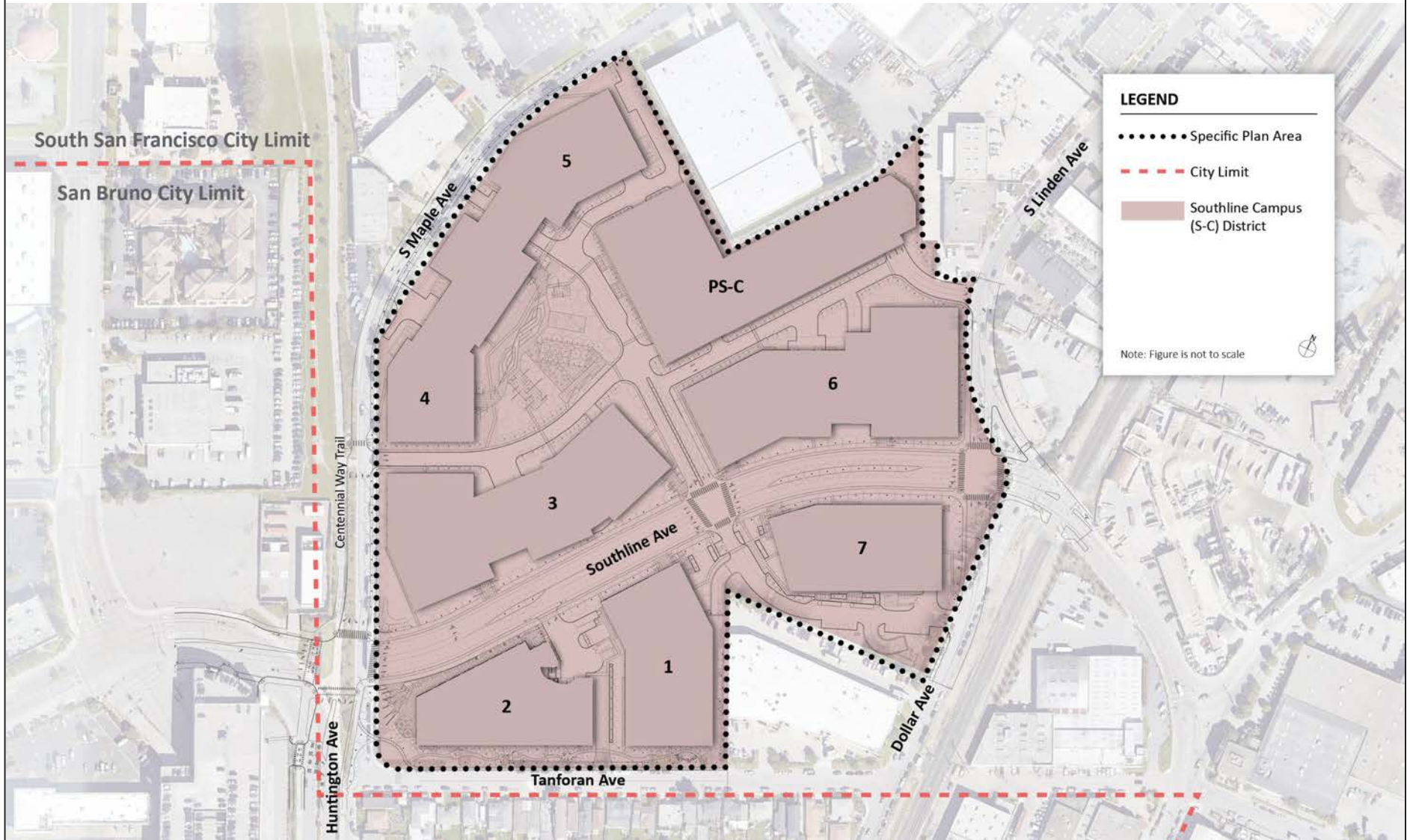


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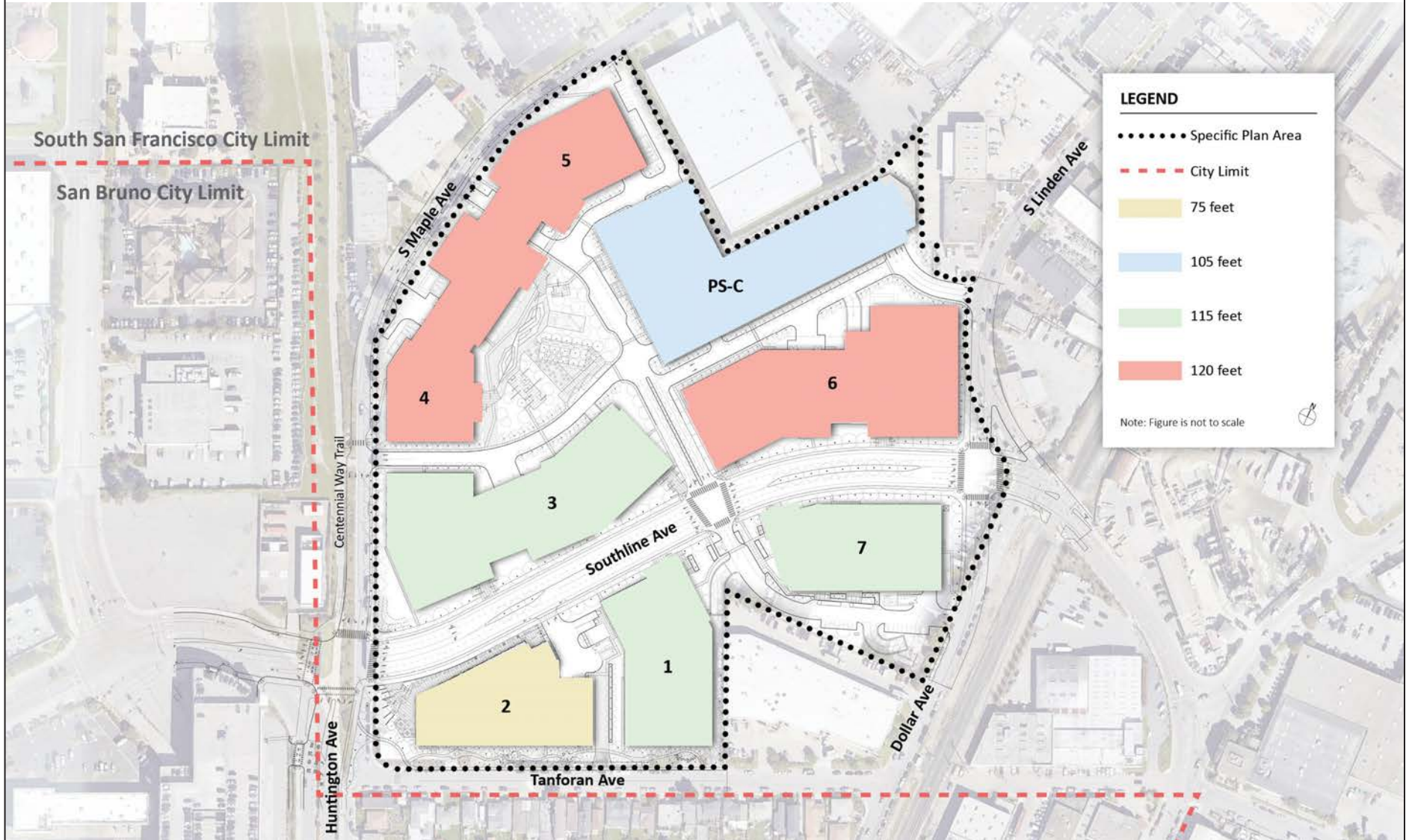
**Figure 3-8**  
**Conceptual Site Plan – Life Sciences Scenario**



Source: Kimley Horn, 2021.



Source: Kimley Horn, 2021.



Source: Kimley Horn, 2021.

**Figure 3-11**  
**Conceptual Building Heights**



ICF Graphics ... 000882.20 (9/8/21) AB

Source: DES Architects + Engineers, 2020.



**Figure 3-12**  
**Conceptual Project Rendering – View from Huntington-Sneath Intersection**



Source: DES Architects + Engineers, 2020.



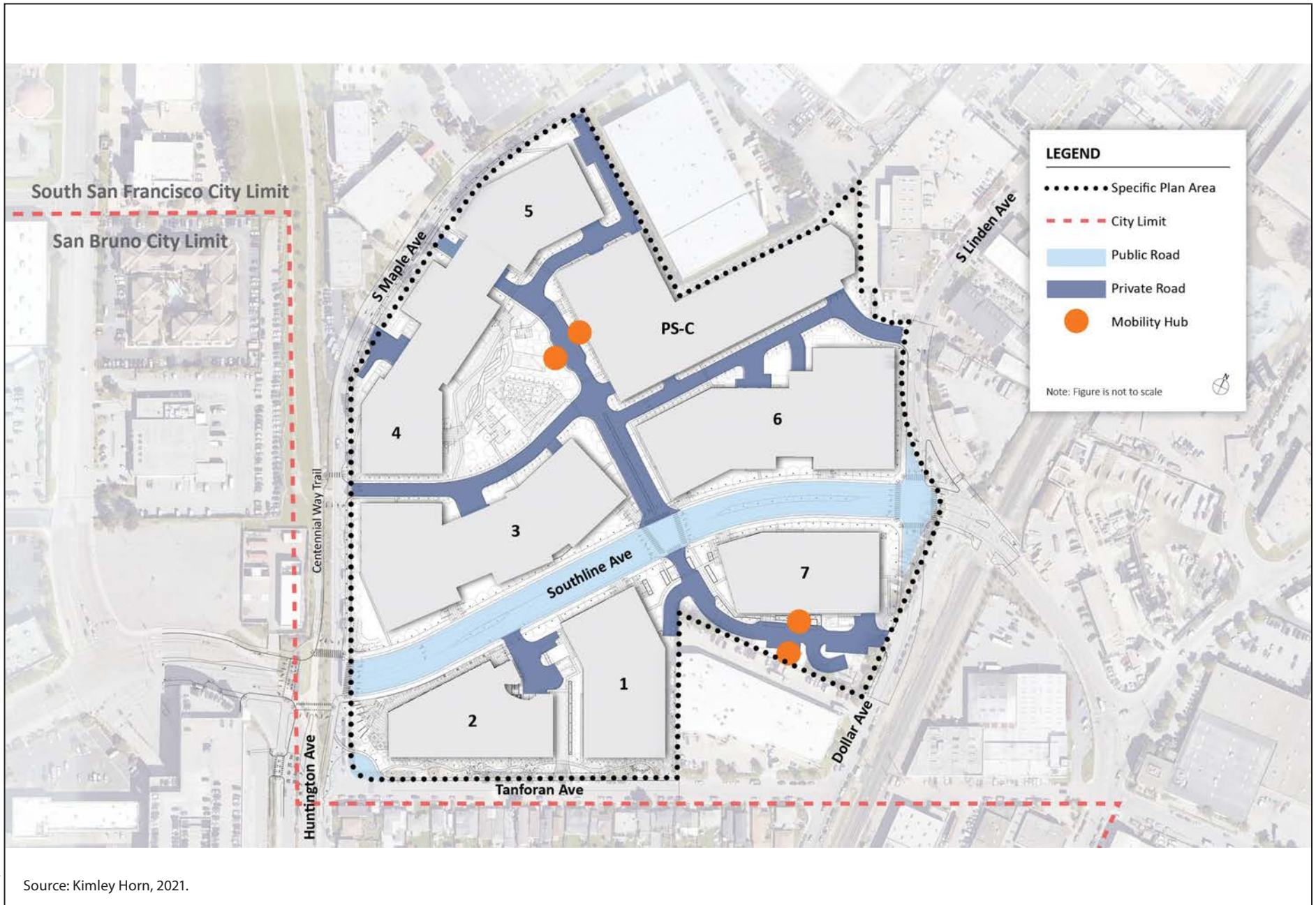
Source: DES Architects + Engineers, 2020.

**Figure 3-14**  
**Conceptual Project Rendering – View of Parking Garage**



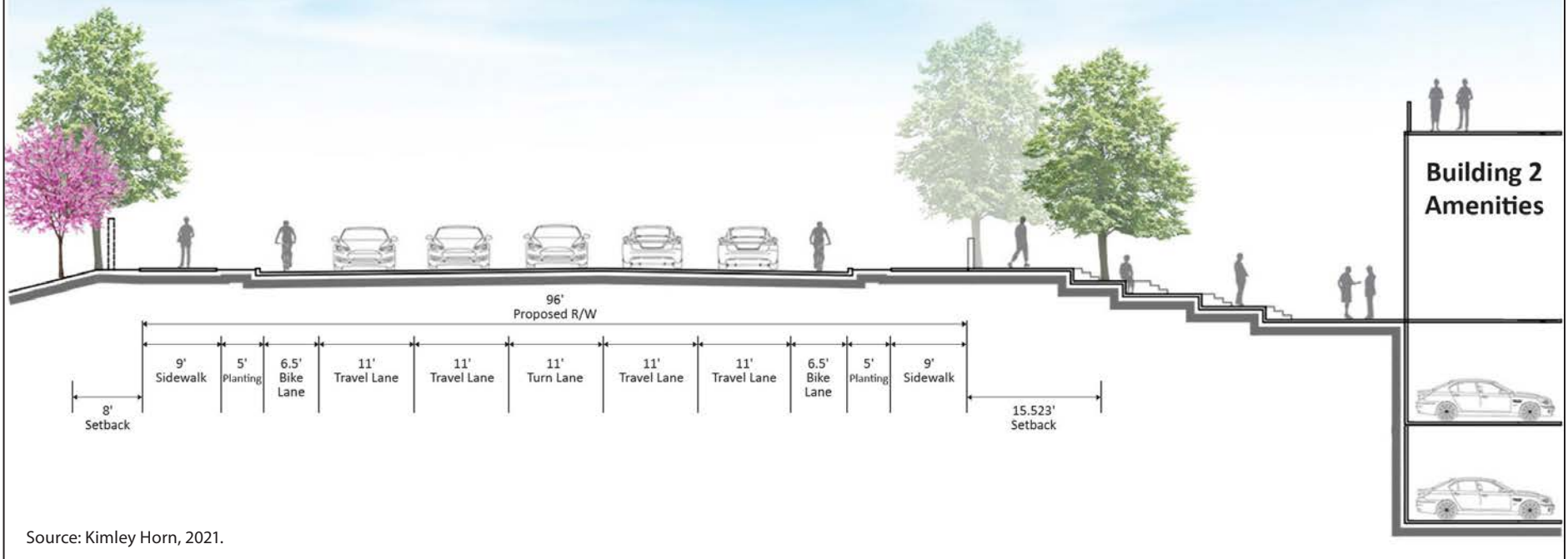
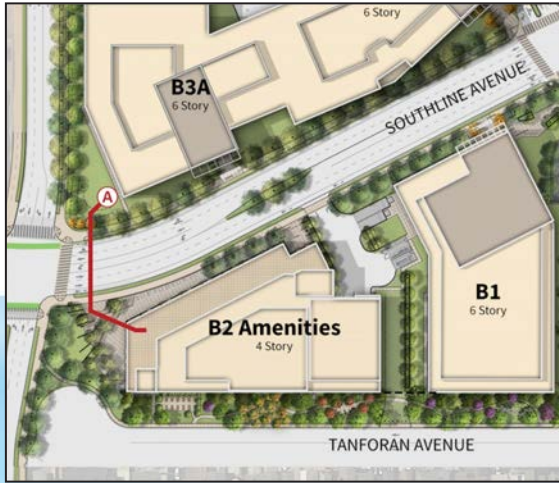
Source: DES Architects + Engineers, 2020.

**Figure 3-15**  
**Conceptual Project Rendering – View of Southline Commons**



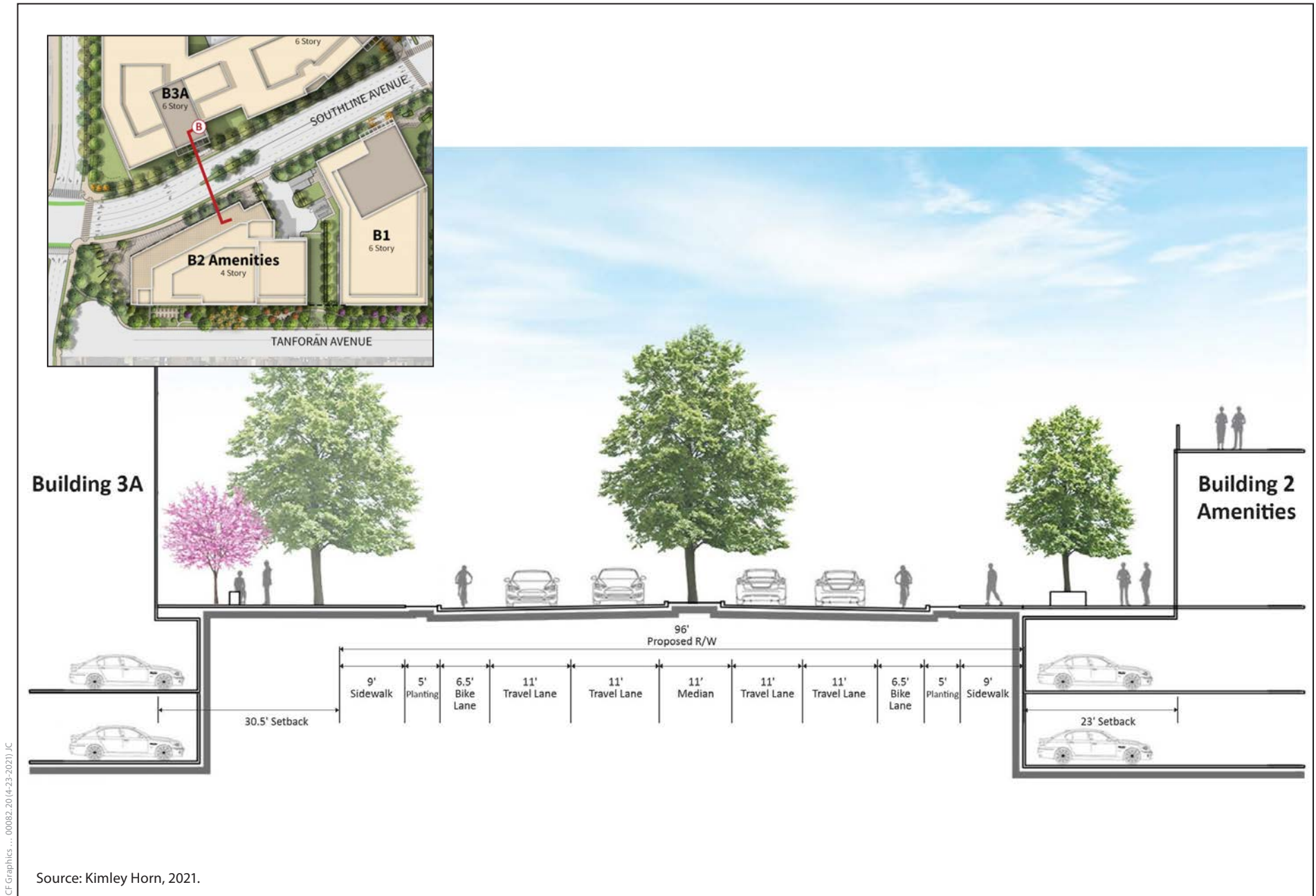
Source: Kimley Horn, 2021.

Figure 3-16  
Conceptual On-Site Vehicular Circulation Plan

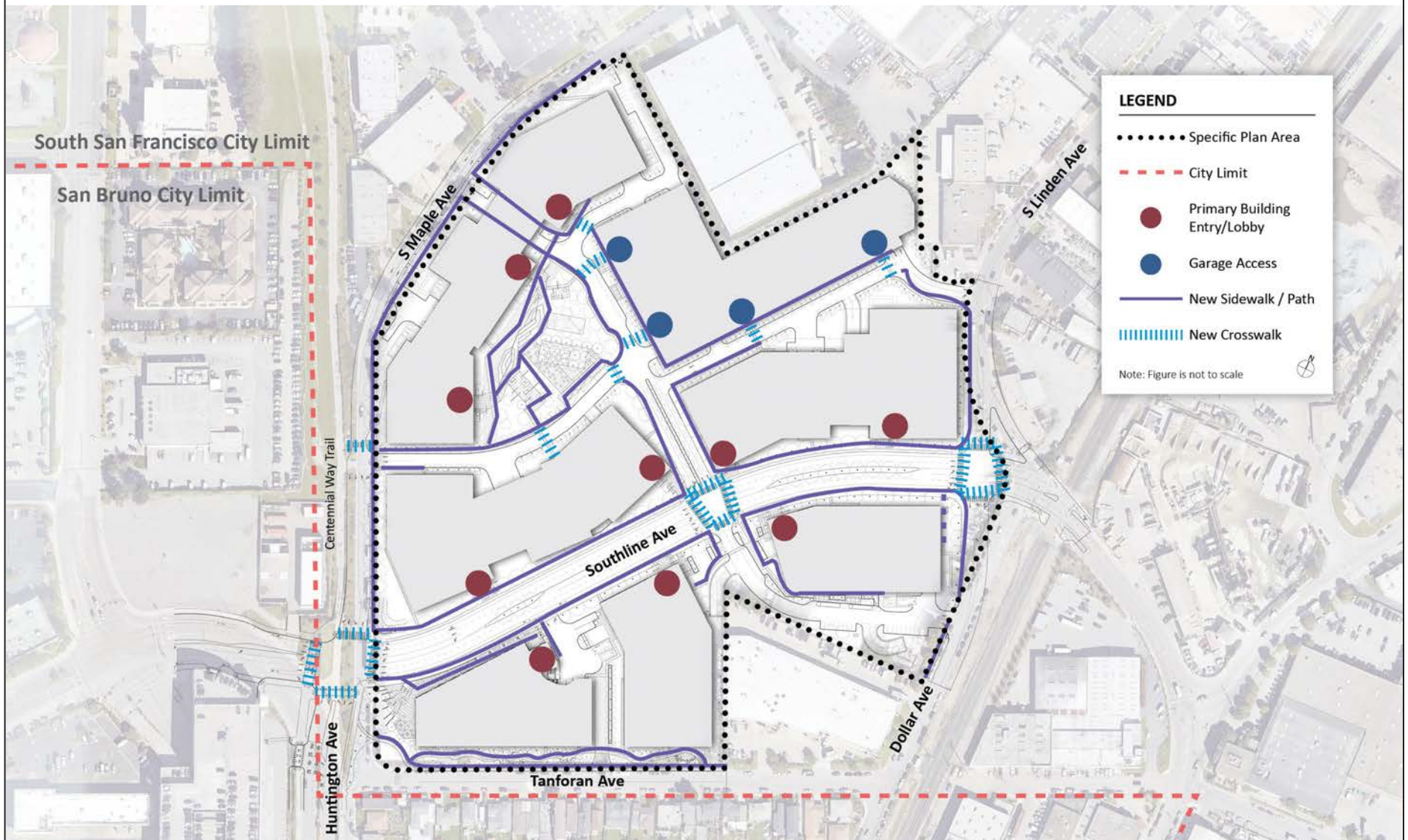


Source: Kimley Horn, 2021.

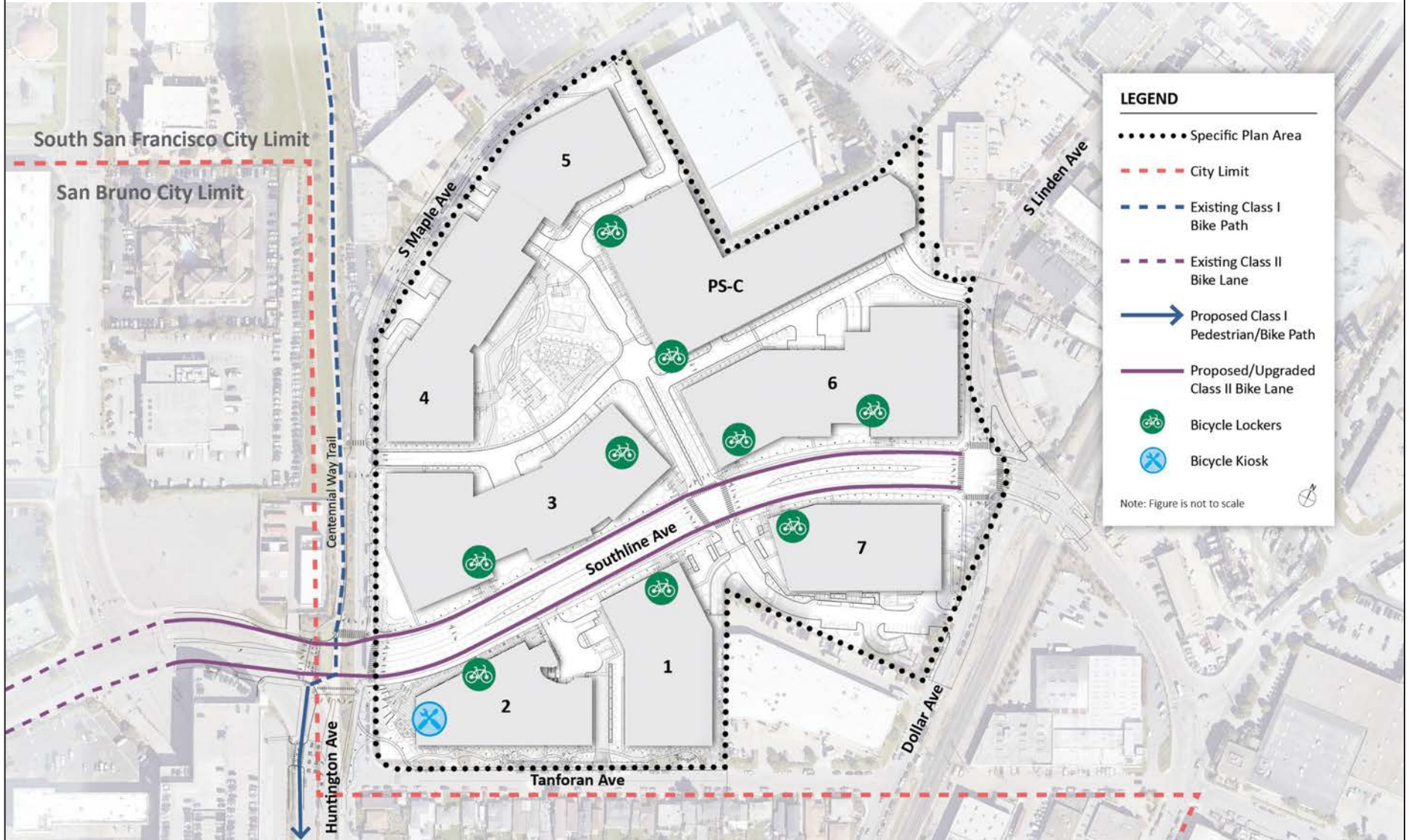
**Figure 3-17a**  
**Southline Avenue Roadway – Cross Section A**



**Figure 3-17b**  
**Southline Avenue Roadway – Cross Section B**

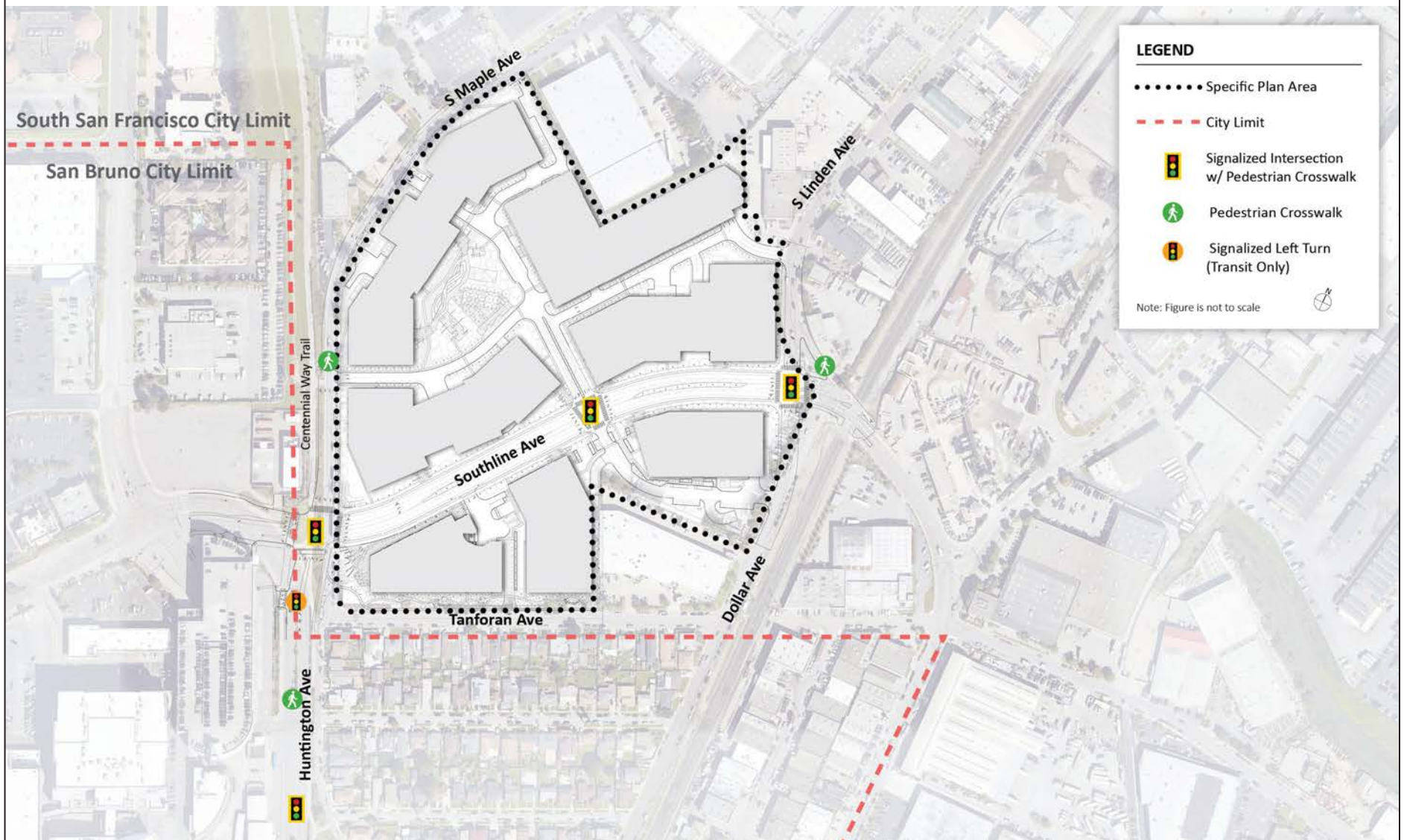


Source: Kimley Horn, 2021.



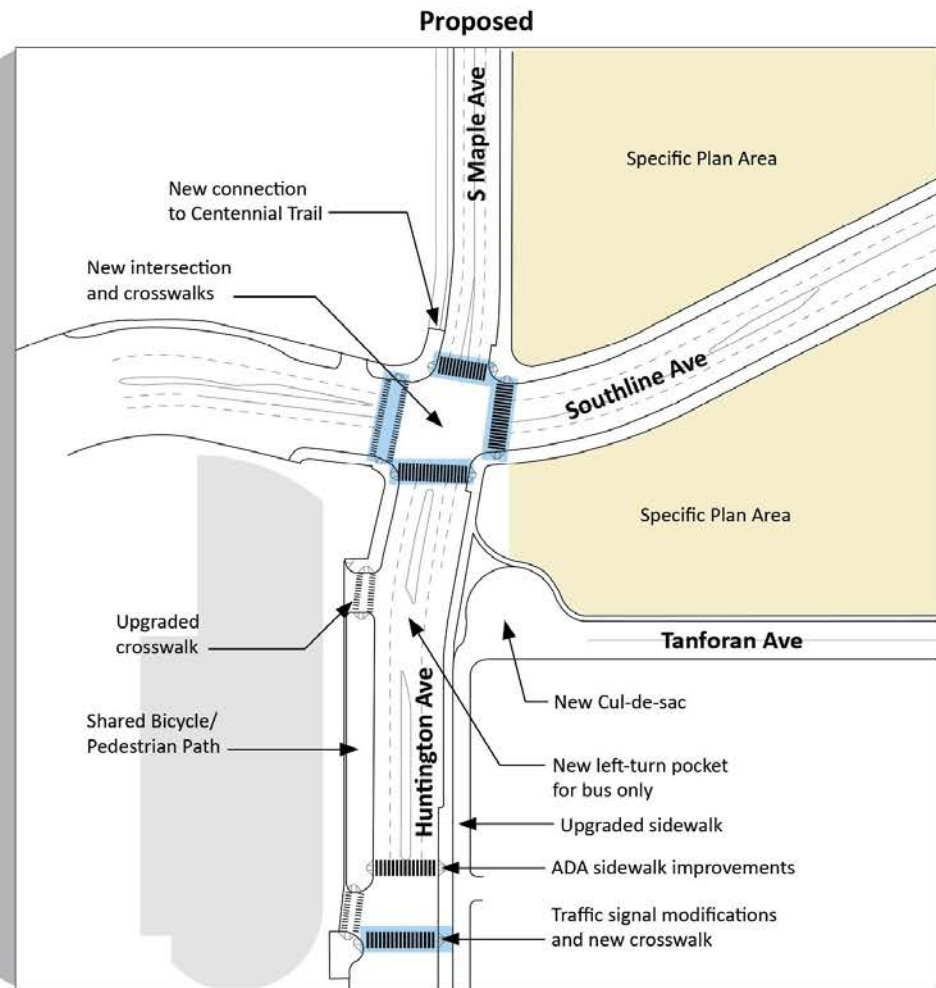
Source: Kimley Horn, 2021.

**Figure 3-19**  
**Conceptual Bicycle Connectivity Plan**



Source: Kimley Horn, 2021.

**Figure 3-20**  
Conceptual Off-Site Signal and Pedestrian Crosswalk Improvements



Source: Kimley Horn, 2021.

**Figure 3-21a**  
**Conceptual Intersection Improvements at the**  
**Southline and Huntington Avenues Intersection - Overview**



Overhead view



View looking northwest



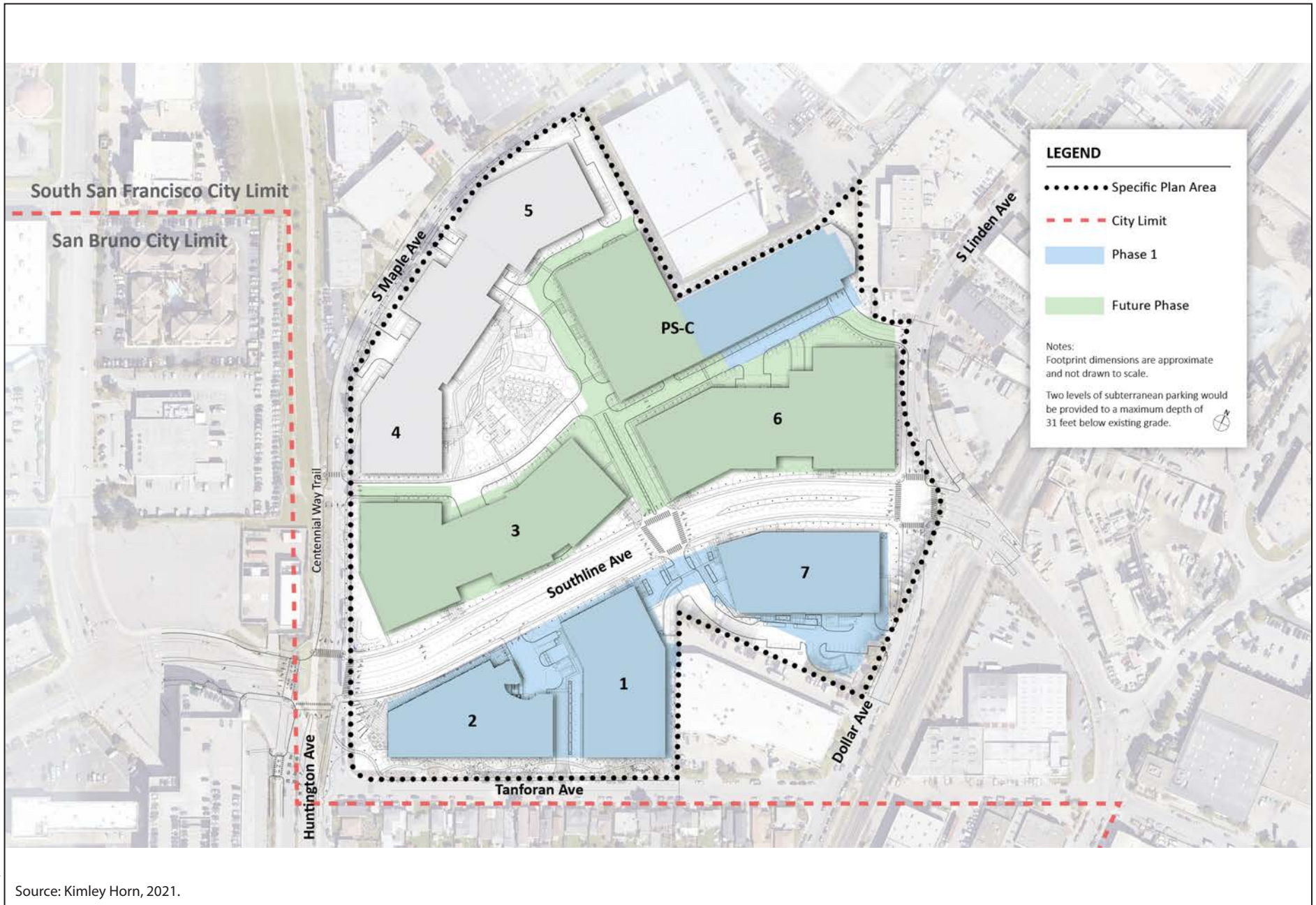
View looking southeast



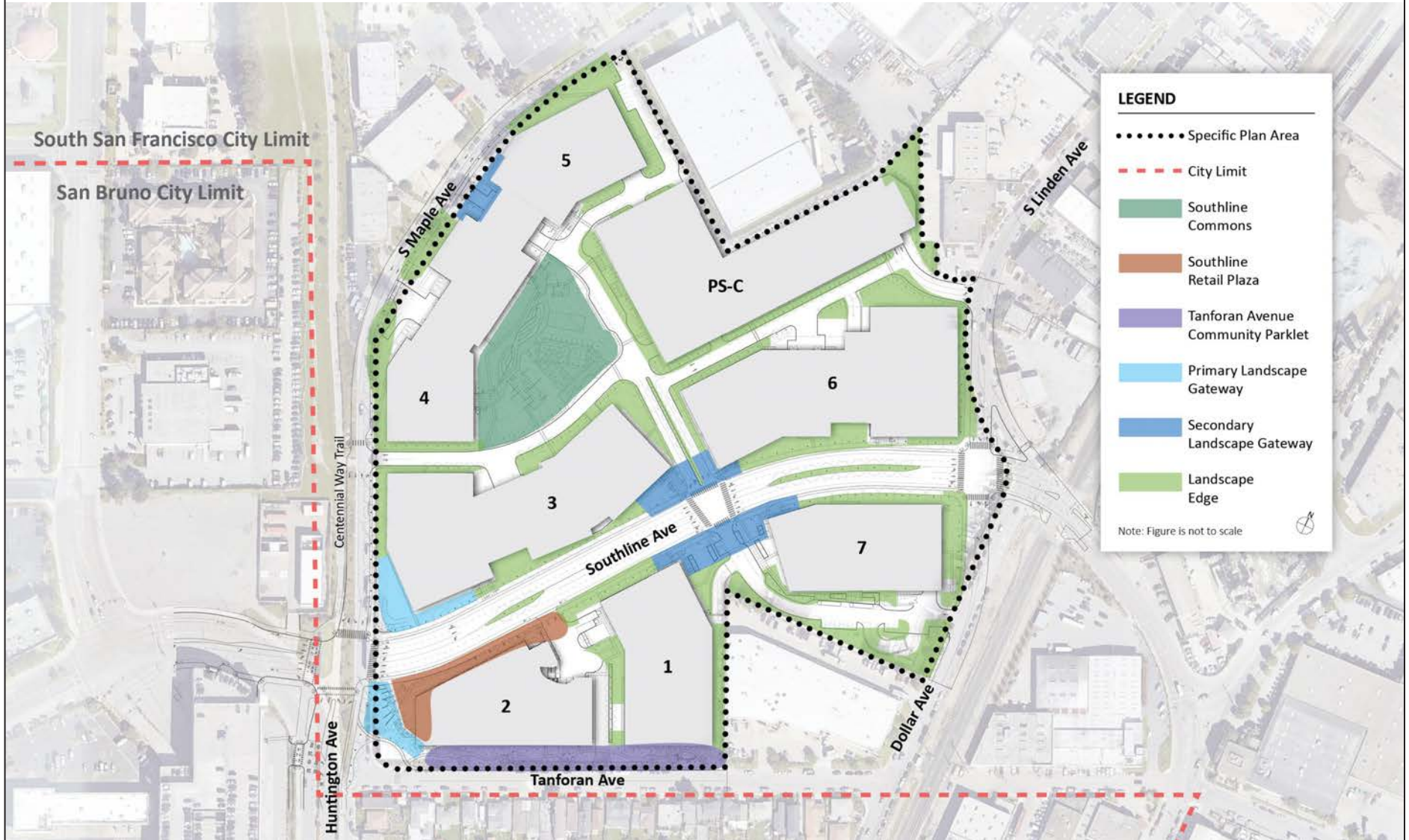
View looking southwest



Source: Kimley Horn, 2021.



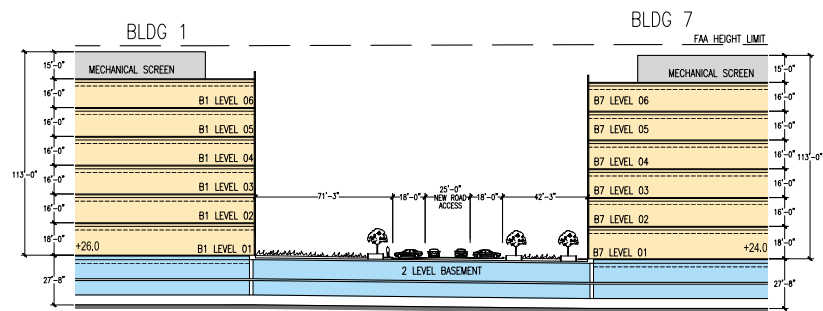
Source: Kimley Horn, 2021.



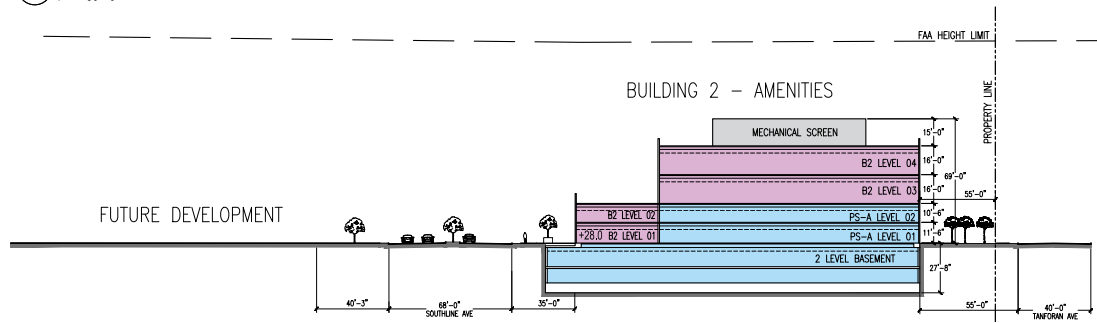
Source: Kimley Horn, 2021.



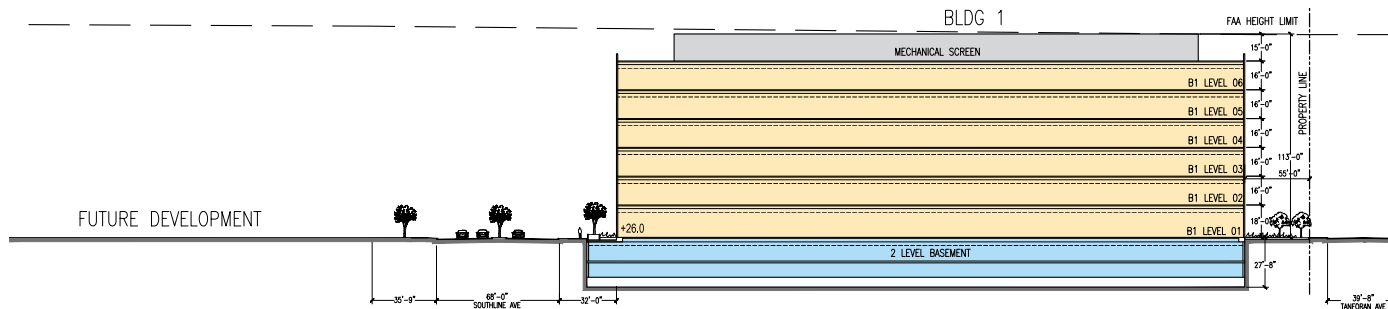
Source: DES Architects/Engineers, Lane Partners, 2021.



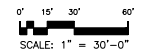
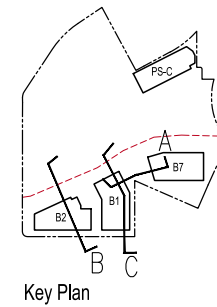
(A) West to East Section: Buildings 1 and 7  
1" = 30'-0"



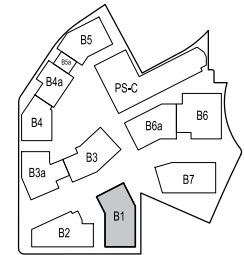
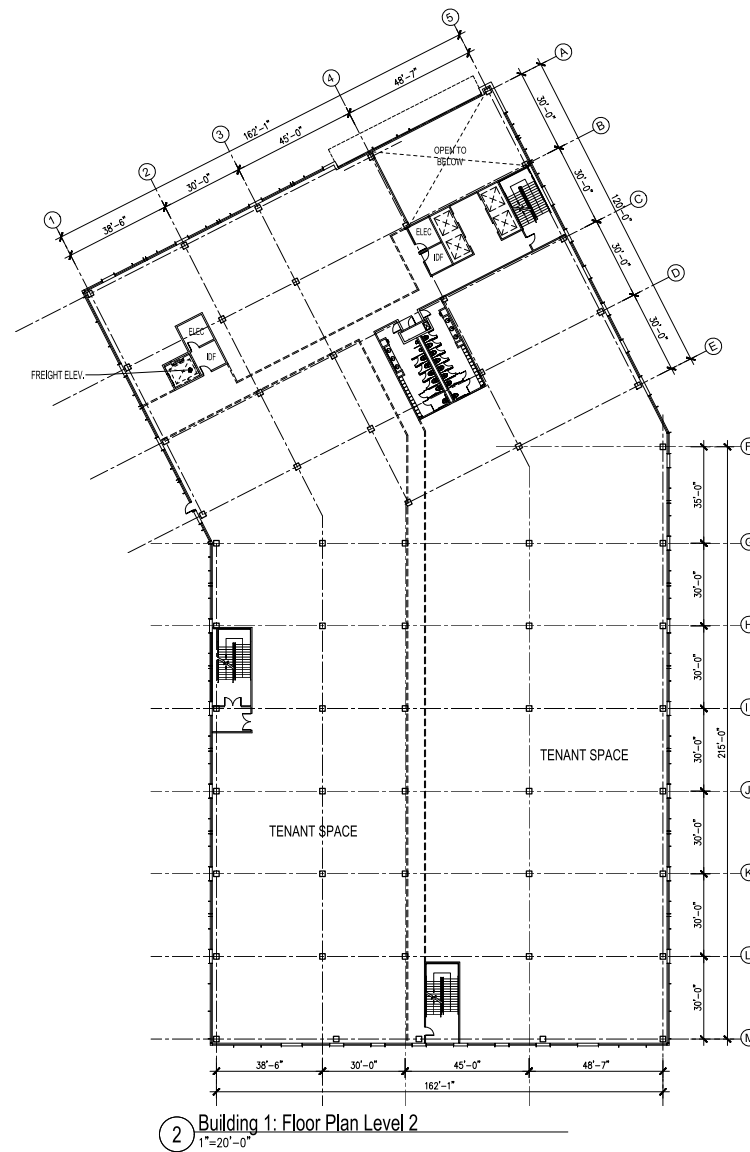
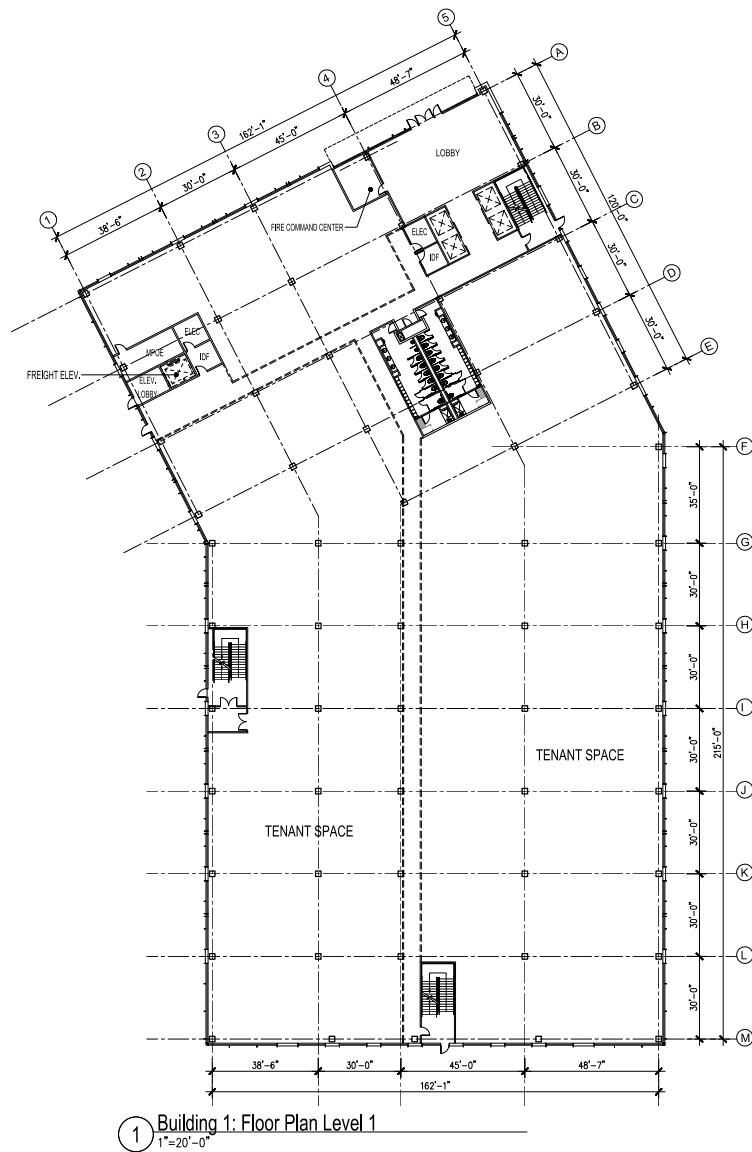
(B) North to South Section: Amenities Building  
1" = 30'-0"



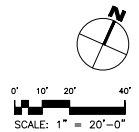
(C) North to South Section: Building 1  
1" = 30'-0"



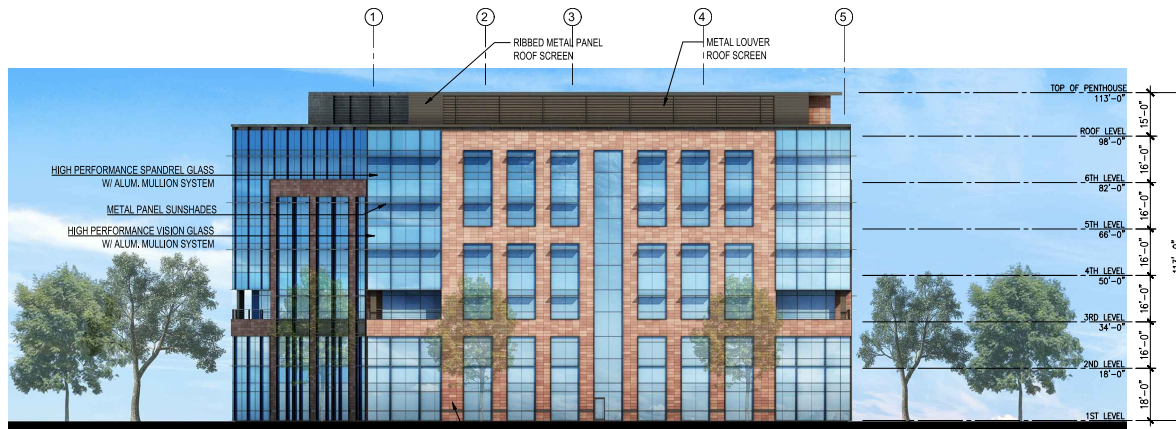
Source: DES Architects/Engineers, Lane Partners, 2021.



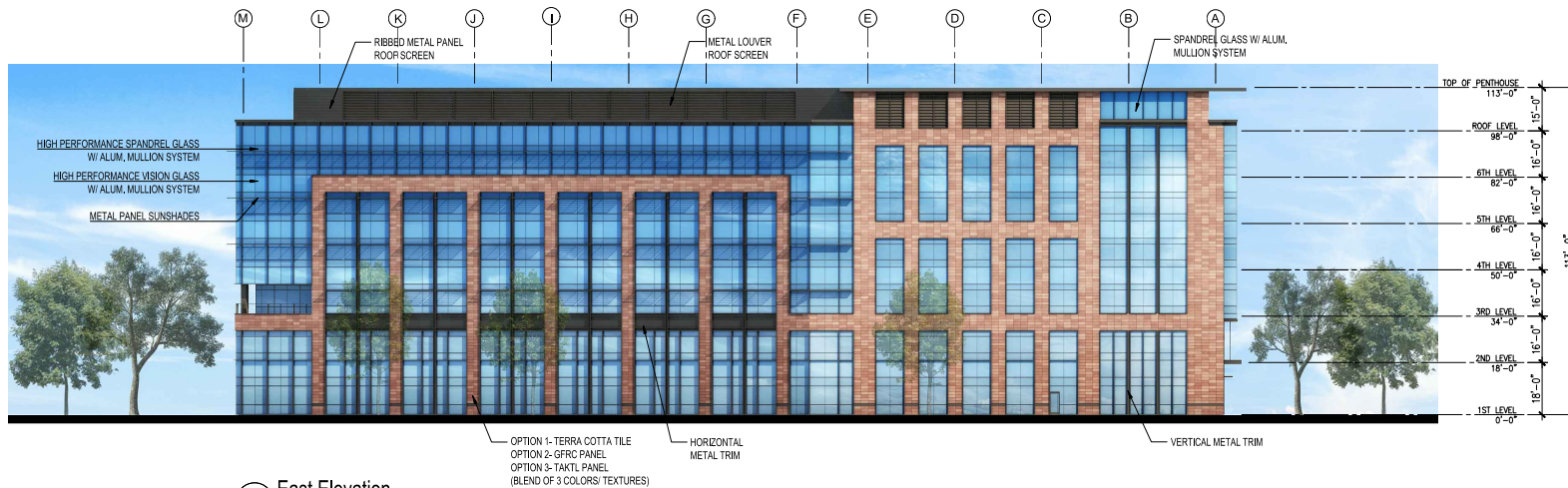
Key Plan



Source: DES Architects/Engineers, Lane Partners, 2021.

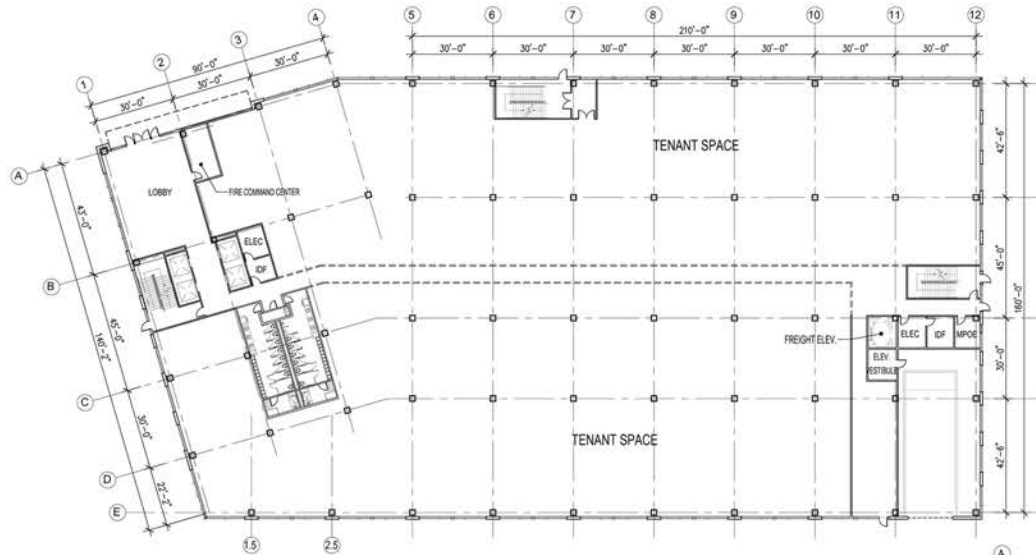


3 South Elevation  
1" = 20'-0"

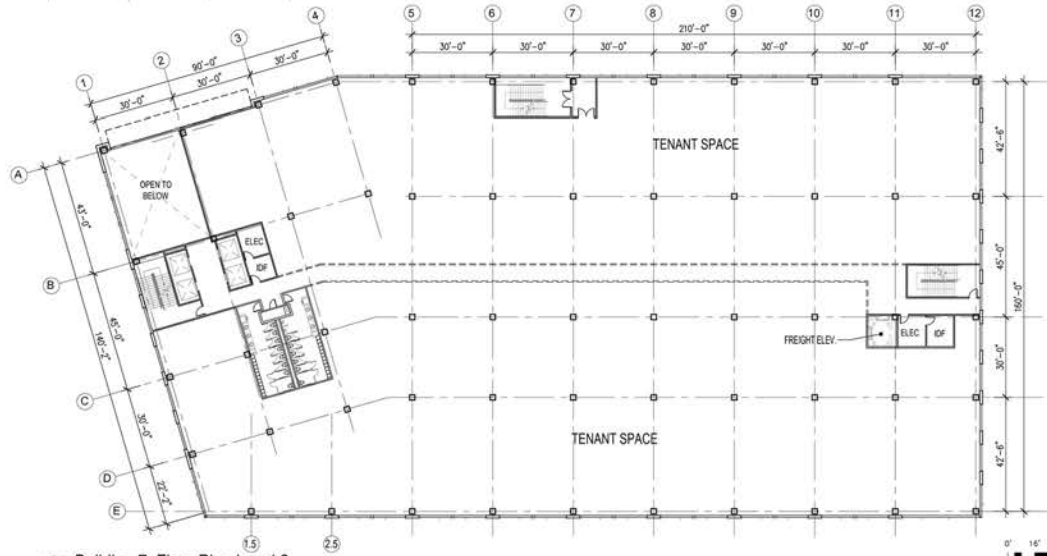


4 East Elevation  
1" = 20'-0"

Source: DES Architects/Engineers, Lane Partners, 2021.



1 Building 7: Floor Plan Level 1  
1" = 20'-0"



2 Building 7: Floor Plan Level 2  
1" = 20'-0"

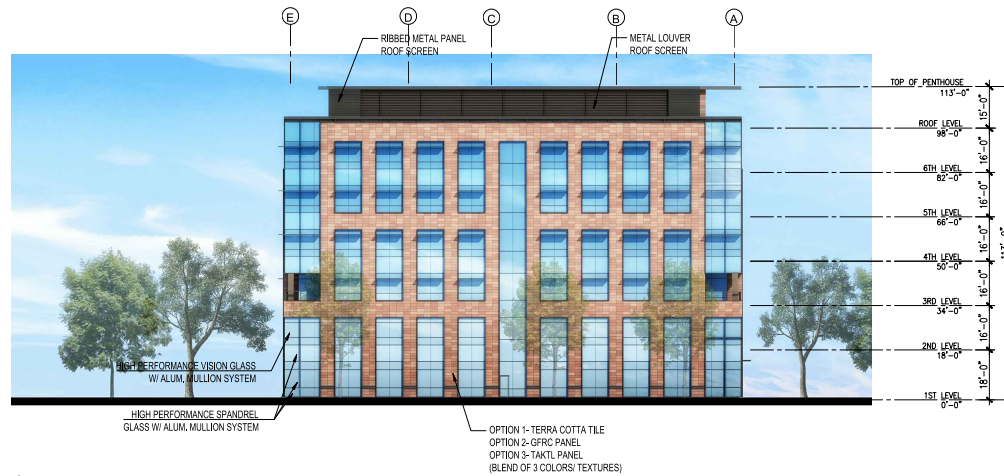


Key Plan

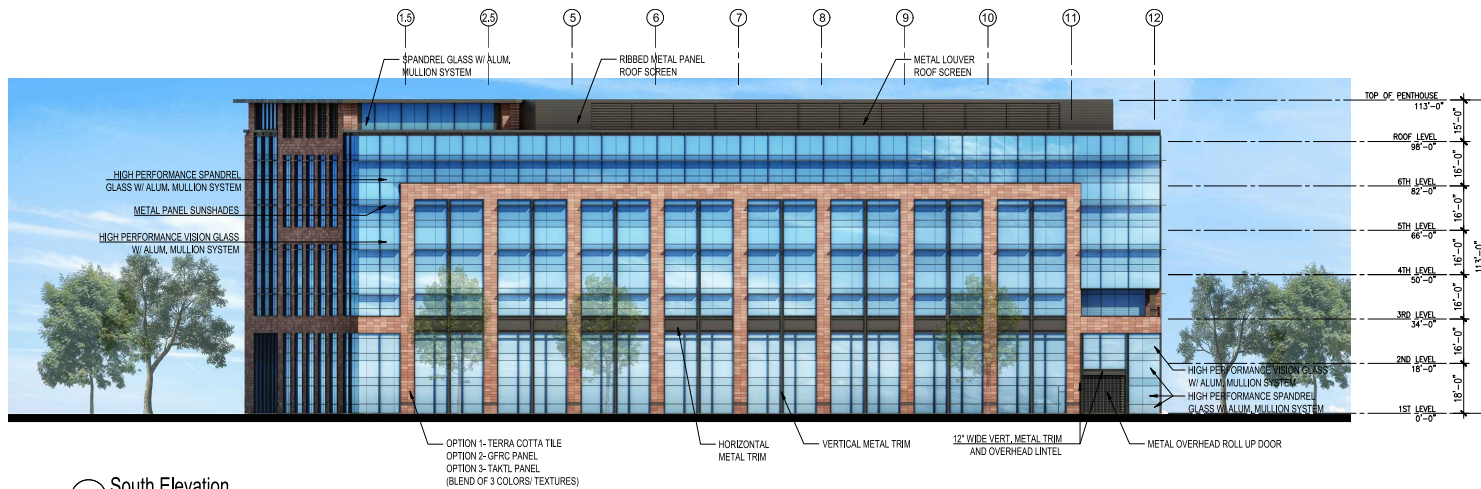
Source: DES Architects/Engineers, Lane Partners, 2021.



Figure 3-29  
Building 7 Levels 1 and 2 Floor Plans



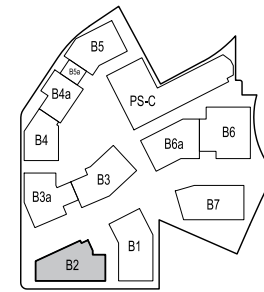
3 East Elevation  
1" = 20'-0"



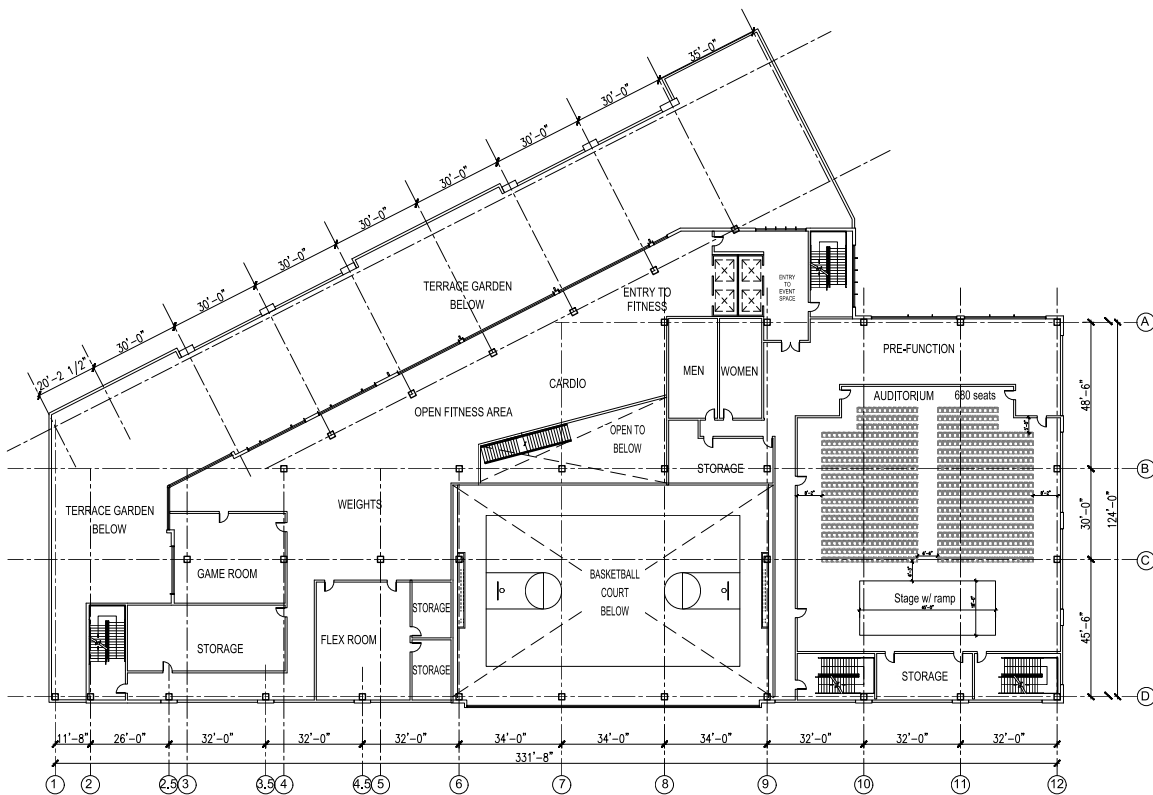
4 South Elevation  
1" = 20'-0"

Source: DES Architects/Engineers, Lane Partners, 2021.

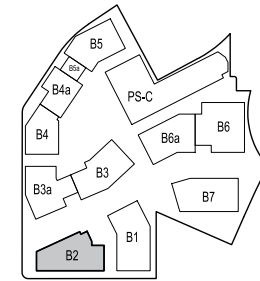
**Figure 3-31**  
**Building 2 Level 1 Floor Plan**



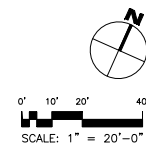
**Figure 3-32**  
**Building 2 Level 3 Floor Plan**



① Building 2 Amenities: Floor Plan Level 4  
1"=20'-0"



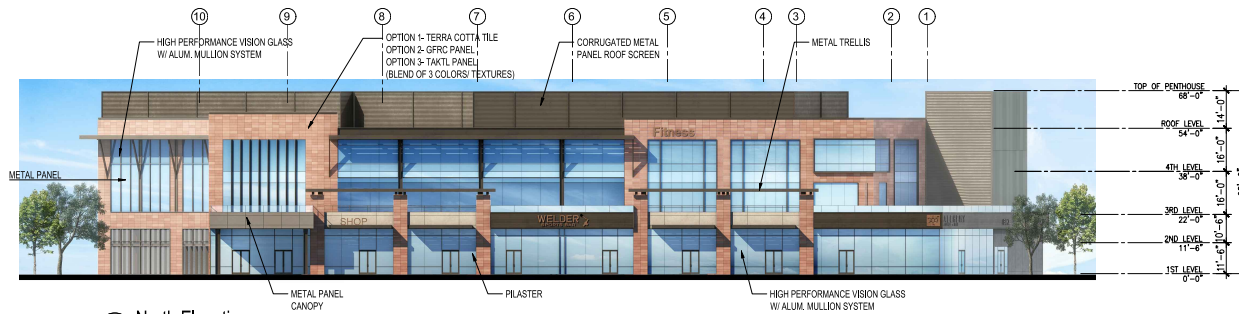
Key Plan



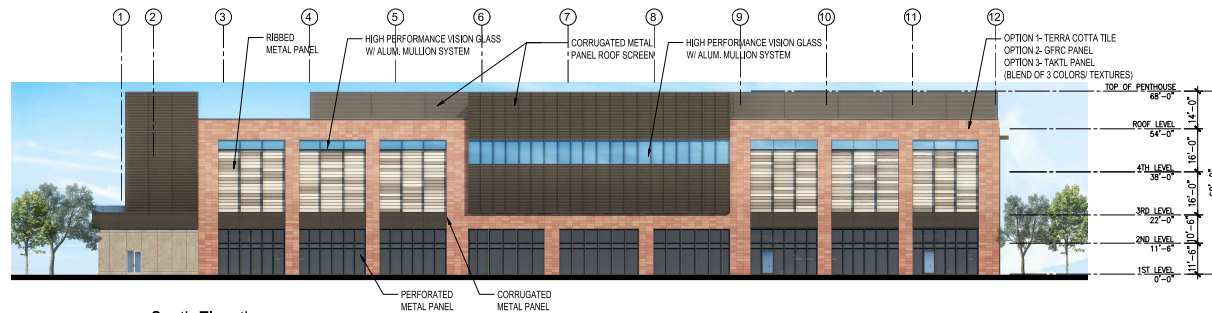
Source: DES Architects/Engineers, Lane Partners, 2021.



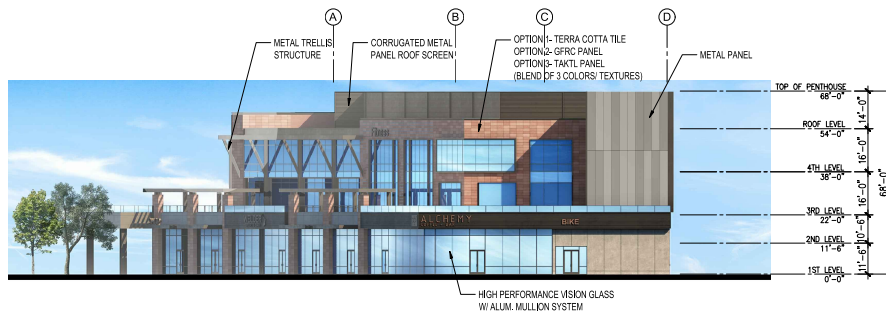
**Figure 3-33**  
**Building 2 Level 4 Floor Plan**



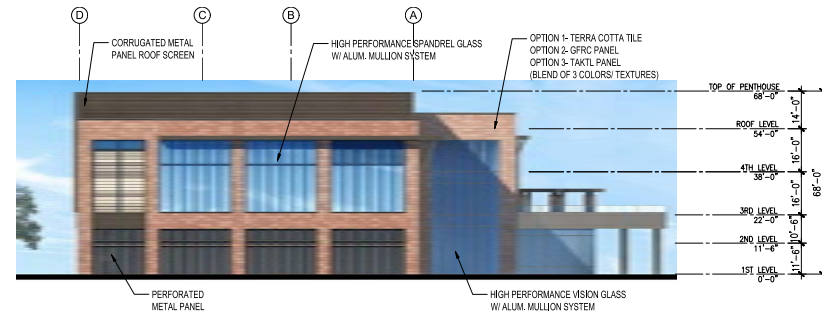
1 North Elevation  
1" = 20'-0"



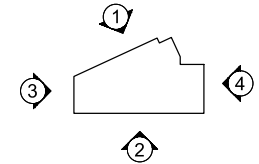
2 South Elevation  
1" = 20'-0"



3 West Elevation  
1" = 20'-0"



4 East Elevation  
1" = 20'-0"



Source: DES Architects/Engineers, Lane Partners, 2021.



Source: DES Architects/Engineers, Lane Partners, 2021.

### 4.1 Approach to Environmental Analysis

#### 4.1.1 Introduction to Analysis

This section describes the type and format of the environmental analysis for the proposed project in each environmental topic section of the chapter; the effect of Public Resources Code Section 21099 on the scope of the California Environmental Quality Act (CEQA) analysis for the project; and the general approaches to establishing the baseline setting and evaluating project-level and cumulative impacts in this environmental impact report (EIR).

#### 4.1.2 Type of CEQA Analysis

Pursuant to CEQA Guidelines Sections 15161 and 15168, this is a combined program-level and project-level EIR. Specifically, this EIR provides a program-level analysis of the potential effects on the environment that could occur from implementation of the proposed project, which comprises buildout allowed under the proposed Southline Specific Plan (Specific Plan) and associated off-site improvements. In addition, this EIR provides a project-level analysis of the initial development phase of the Specific Plan (Phase 1) including the related off-site improvements, which is a component of the proposed project. This EIR serves as a single CEQA document that will provide environmental clearance for the proposed project, which includes (i) adoption of the Specific Plan and related discretionary approvals; (ii) approval and implementation of the off-site improvements; and (iii) implementation of Phase 1 including the related off-site improvements. As such, this EIR is intended to provide the environmental review needed under CEQA to support all necessary approvals and entitlements for implementation of Phase 1 and the off-site improvements that would be completed during Phase 1, while also serving as a program-level document that is intended to be used for streamlined environmental review for future phases of development within the Specific Plan area and the remainder of the off-site improvements.

For each CEQA environmental topic evaluated, the EIR presents separate analyses of the impacts of the (i) proposed project and (ii) Phase 1, in order to differentiate project impacts specific to Phase 1 and/or identify any necessary, feasible mitigation measures applicable to Phase 1 as compared to buildout of the proposed project.

For purposes of the program-level EIR analysis, as further described below, and in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the project applicant has identified two Specific Plan buildout scenarios that represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario. For the program-level analysis, each section in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyzes the buildout scenario – i.e., either the Office Scenario or the Life Sciences 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, office uses generate more vehicle trips, on a per square-footage basis, than R&D uses; therefore, the Office Scenario is used to estimate the proposed project’s trip generation in Section 4.15, *Transportation and*

*Circulation*, of this EIR. In some cases, either scenario would present equivalent impacts (e.g., impacts related to construction activities on a maximum activity day). In these cases, the EIR analysis is representative of Specific Plan buildout under any configuration. **Table 4.1-1**, below, lists the buildout scenario assumed in each resource analysis for the program-level analysis of the Specific Plan buildout scenarios.

**Table 4.1-1. Specific Plan Buildout Scenario Analyzed for Each Resource Topic (Programmatic Analysis)**

<b>Resource Topic</b>	<b>Buildout Scenario (Office, Life Sciences, Either)</b>
Air Quality	Construction Impacts: Either Scenario Operational Impacts (criteria pollutants): Office Scenario Operational Impacts (toxic air contaminants): Life Sciences Scenario
Biological Resources	Office Scenario
Cultural Resources	Office Scenario
Energy	Construction Impacts: Either Scenario Operational Impacts: Office Scenario
Geology, Soils, and Paleontological Resources	Office Scenario
Greenhouse Gas Emissions	Construction Impacts: Either Scenario Operational Impacts: Office Scenario
Hazards and Hazardous Materials	Hazardous Materials Handling: Life Sciences Scenario Subsurface Contamination: Office Scenario
Hydrology and Water Quality	Surface Water: Life Sciences Scenario Groundwater: Office Scenario
Land Use and Planning	Either Scenario
Noise and Vibration	Construction Noise: Either Scenario Stationary Noise: Life Sciences Scenario Traffic-Related Noise: Office Scenario
Population and Housing	Office Scenario
Public Services	Office Scenario
Recreation	Office Scenario
Transportation and Circulation	Office Scenario
Tribal Cultural Resources	Office Scenario
Utilities and Service Systems	Water: Life Sciences Scenario Wastewater: Office Scenario Solid Waste: Office Scenario Electricity, Natural Gas, and Telecommunications: Either Scenario
Environmental Topics For Which The Project Would Have No Impact (Aesthetics (Shading), Agricultural and Forestry Resources, Mineral Resources, Wildfire)	Shading: Office Scenario <sup>a</sup> Other topics: Either Scenario

<sup>a</sup>. As discussed in Section 4.18, *Impacts Found Not to Be Significant*, this EIR does not consider aesthetics in determining the significance of impacts under CEQA pursuant to Public Resources Code Section 21099. However, a shading analysis is provided for informational purposes in response to a comment received on the Notice of Preparation (NOP).

In December 2015, the California Supreme Court found that “CEQA generally does not require an analysis of how existing environmental conditions will impact a project’s future users or residents,” unless the project “could exacerbate hazards that are already present.” The Supreme Court identified several exceptions to this general rule in which CEQA could apply to impacts of the environment on the project, all of which are statutory provisions in CEQA that specifically require consideration of impacts of the environment, such as consideration of projects near airports, school construction projects, and statutory exemptions from housing and transit priority projects. (*California Building Industry Assoc. v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369). None of these exceptions apply to the proposed project; as such, this environmental impact report does not draw significance conclusions for those topics for which the environment could have an effect on the project.

## 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 reasonably conservative approach in analyzing environmental impacts under CEQA, EIRs typically analyze what could be considered a reasonably foreseeable worst-case scenario with respect to potential physical impacts to the environment in order to disclose all potential significant impacts that could occur from implementation of a project. To establish a programmatic evaluation of the proposed Specific Plan, which would allow for development of office and research and development (R&D) uses based on the land use development standards and design guidelines established therein as described in Section 3.6.2.2 in Chapter 3, *Project Description*, this EIR analysis utilizes “buildout” calculations based on reasonably foreseeable development scenarios.

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 3, *Project Description*, of this EIR, the Specific Plan would allow for the development of up to 2,800,000 square feet of the commercial campus as either office or R&D uses, or a combination of both. The buildout of the Specific Plan would depend on a number of factors, including market conditions, availability of financing, and tenancy requirements. Because the exact amount and configuration of future development cannot be forecast with precision, two projected buildout scenarios have been identified which represent the reasonably foreseeable range of future development expected to occur under the Specific Plan: the Office Scenario and the Life Science Scenario.

1. The Office Scenario would develop office uses up to seven stories tall and the four-story amenity building for a total of 2,800,000 square feet of development (FAR of approximately 2.4).
2. The Life Sciences Scenario would develop R&D uses, including laboratory and office spaces, up to six stories tall and the four-story amenity building for a total of 2,025,050 square feet of development (FAR of approximately 1.75).

Chapter 3, *Project Description*, of this EIR, provides detailed estimates of the amount of office, and R&D space that could be developed under the two buildout scenarios. The proposed off-site improvements would be the same under both the Office Scenario and Life Sciences Scenario.

## Phase 1

As described in Chapter 3, *Project Description*, this EIR evaluates the Precise Plan proposal submitted by the project applicant to the City of South San Francisco (City) for the first phase of development under the Specific Plan (Phase 1). Under the Precise Plan proposal, Phase 1 would

include construction of the new Southline Avenue east-west connection road and the following development, generally located south of the new road: two new office buildings (Buildings 1 and 7), with a total building area of up to 612,715 square feet, the four-story, 88,200-square foot amenities building (Building 2); approximately 2,664 parking spaces in a combination of below-grade parking and the eastern portion of the nine-story parking structure located north of the new Southline Avenue (Parking Structure C) – a portion of which would be utilized for construction parking and future phases; and landscaping and open space amenities. Phase 1 also includes all of the proposed on-site and off-site infrastructure, roadway, and pedestrian improvements within the off-site improvement areas, except for the roadway widening, streetfront improvements, and sewer main upgrades in Maple Avenue. In total, Phase 1 construction would occur on approximately 11.93 acres within the Specific Plan area and 5.03 acres within the off-site improvement areas, totaling approximately 16.96 acres (Phase 1 site).

### 4.1.3 Format of the Environmental Analysis

Sections 4.2 through 4.18 address the physical environmental effects of the proposed project, inclusive of Phase 1, on the required CEQA environmental topics, as follows:

- Section 4.2, *Air Quality*
- Section 4.3, *Biological Resources*
- Section 4.4, *Cultural Resources*
- Section 4.5, *Energy*
- Section 4.6, *Geology and Soils*
- Section 4.7, *Greenhouse Gas Emissions*
- Section 4.8, *Hazards and Hazardous Materials*
- Section 4.9, *Hydrology and Water Quality*
- Section 4.10, *Land Use and Planning*
- Section 4.11, *Noise and Vibration*
- Section 4.12, *Population and Housing*
- Section 4.13, *Public Services*
- Section 4.14, *Recreation*
- Section 4.15, *Transportation and Circulation*
- Section 4.16, *Tribal Cultural Resources*
- Section 4.17, *Utilities and Service Systems*
- Section 4.18, *Impacts Found Not to be Significant*
  - 4.18.1, *Aesthetics and Vehicular Parking Analysis*
  - 4.18.2, *Agriculture and Forestry Resources*
  - 4.18.3, *Mineral Resources*
  - 4.18.4, *Wildfire*

Sections 4.2 through 4.17 each contain the following subsections: *Environmental Setting*, *Regulatory Framework*, and *Impacts and Mitigation Measures*, described below. In accordance with CEQA Guidelines Section 15128, Section 4.18 provides a brief discussion of topics where the proposed project would have no impacts, and therefore are not discussed in detail in this EIR. For each of these topics, Section 4.18 includes a brief description of the Lead Agency's reasons for determining that there would be no impact.

### 4.1.3.1 Environmental Setting

The *Environmental Setting* subsections in Sections 4.2 through 4.17 describe the existing conditions at the project site, inclusive of the Phase 1 site, and in the project vicinity as they relate specifically to that environmental topic. The existing conditions that serve as the baseline for the analysis of environmental impacts are described in Section 4.1.5, page 4.1-8.

### 4.1.3.2 Regulatory Framework

The *Regulatory Framework* subsections in Sections 4.2 through 4.17 describe federal, state, regional, and local regulatory requirements that are directly applicable to the environmental topic.

### 4.1.3.3 Impacts and Mitigation Measures

The *Impacts and Mitigation Measures* subsections in Sections 4.2 through 4.17 describe the physical environmental impacts of the proposed project for each topic, as well as any mitigation measures that could reduce potentially significant impacts to less-than-significant levels. Impacts and mitigation measures specific to Phase 1 are called out separately. This subsection begins with a listing of the significance criteria used to assess the severity of the environmental impacts for that particular topic based on the CEQA Guidelines Appendix G checklist. Environmental topic sections also include a topic-specific “Approach to Analysis” explaining the parameters, assumptions, and data used in the analysis.

Under the “Impact Evaluation” discussion, the program- and project-level impact analysis for each topic begins with an impact statement that reflects the applicable significance criteria. Some significance criteria may be combined in a single impact statement, if appropriate. Each impact statement is keyed to a subject area abbreviation (e.g., AQ for Air Quality) and an impact number (e.g., 1, 2, 3) for a combined alpha-numeric code (e.g., Impact AQ-1, Impact AQ-2, Impact AQ-3). When potentially significant impacts are identified, mitigation measures are presented, if feasible, to avoid, eliminate, or reduce significant adverse impacts of the proposed project and/or Phase 1. Each mitigation measure is numbered according to the impact under which it falls (e.g., Mitigation Measure AQ-1 to mitigate Impact AQ-1, Mitigation Measure AQ-2 to mitigate Impact AQ-2). If more than one mitigation measure is required for an impact, it is numbered consecutively with an alpha-numeric code (e.g., Mitigation Measure AQ-1a, Mitigation Measure AQ-1b).

Each impact statement describes the impact that would occur after mitigation (if applicable). The level of significance of the impact is indicated in parentheses at the end of the impact statement based on the following terms:

- **No Impact** – No adverse physical changes (or impacts) to the environment are expected.
- **Less than Significant** – Impact that does not exceed the defined significance criteria or would be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations.
- **Less than Significant with Mitigation** – Impact that is reduced to a less-than-significant level through implementation of the identified mitigation measures.

- **Significant and Unavoidable**– Impact that exceeds the defined significance criteria and cannot be reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations and/or implementation of all feasible mitigation measures.

In accordance with CEQA Guidelines Section 15130, the potential for the proposed project to result in significant cumulative impacts when combined with other current and future projects is described in a separate subsection following the project analysis. Cumulative impact statements are numbered consecutively for each impact statement with an alpha-numeric code to signify it is a cumulative impact (e.g., Impact C-AQ-1).

#### 4.1.4 Applicability of Public Resources Code Section 21099 (SB 743)

Senate Bill (SB) 743,<sup>1</sup> which was signed into law in 2013 and is codified in Section 21099 of the California Public Resources Code, intends to better align CEQA transportation impact analysis practices and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. SB 743 created several key statewide changes to CEQA, as described in Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*, of this EIR, and summarized below.

As required by SB 743, the Office of Planning and Research (OPR) amended CEQA Guidelines Section 15064.3 to provide an alternative to automobile delay, as described by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, for evaluating traffic impacts of proposed projects. The new metric, vehicle miles traveled (VMT), measures the total number of miles traveled by vehicles daily on the roadway network and thereby the impacts on the environment from those miles traveled (e.g., through GHG emissions). 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 on the environment, particularly as it relates to GHG emissions. Land use projects with one or more of the following characteristics would generally have lesser VMT impacts relative to projects without these characteristics:

- A mix of project uses;
- Support for a citywide jobs/housing balance;
- Proximity to high-quality transit service; and
- Locations in highly walkable or bikeable areas.

This shift in transportation impact criteria is intended to align transportation impact analysis and mitigation outcomes with state goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Although OPR provides recommendations for adopting new VMT analysis guidelines, lead agencies retain discretion in designing their methodology. Lead agencies must select their preferred method for 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

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<sup>1</sup> Full text of SB 743 available at: [https://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201320140SB743](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743). Accessed February 25, 2021.

analysis methodology aligns with SB 743's goals to promote infill development, reduce GHGs, and reduce VMT. To aid in SB 743 implementation, the following state guidance has been produced:

- OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*<sup>2</sup>
- California Air Resources Board's (CARB's) *2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*<sup>3</sup>
- California Department of Transportation's (Caltrans') *Local Development–Intergovernmental Review Program Interim Guidance, Implementing Caltrans Strategic Management Plan 2015–2020 Consistent with SB 743*<sup>4</sup>

On June 10, 2020, the City of South San Francisco adopted Resolution 77-2020 establishing VMT thresholds and methodology effective July 1, 2020, as discussed further in Section 4.15, *Transportation and Circulation*, of this EIR.

#### 4.1.4.1 Presumption of Less-Than-Significant VMT and Other Impacts for Qualifying Projects

A vehicle-miles-traveled (VMT) impact analysis is provided in Section 4.15, *Transportation and Circulation*, of this EIR. As described in more detail in Section 4.15, *Transportation and Circulation*, the project meets the criteria set by Public Resources Code Section 21099, City of South San Francisco Resolution 77-2020, and CEQA Guidelines Section 15064.3 to qualify for the presumption of a less-than-significant impact on VMT. The VMT metric does not apply to the analysis of impacts on non-automobile modes of travel such as riding transit, walking, and bicycling.

SB 743 also establishes that aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects, provided the project meets the following criteria established under Public Resources Code Section 21099:

- *The project is on an infill site.*<sup>5</sup>
- *The project is in a Transit Priority area (TPA).*<sup>6</sup>
- *The project is a residential, mixed-use residential, or employment-center project.*<sup>7</sup>

<sup>2</sup> Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December. Available: [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf). Accessed: October 6, 2020.

<sup>3</sup> California Air Resources Board. 2017. *2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*. January. Available: <https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate>. Accessed: October 6, 2020.

<sup>4</sup> California Department of Transportation. 2016. *Local Development–Intergovernmental Review Program Interim Guidance, Implementing Caltrans Strategic Management Plan 2015–2020 Consistent with SB 743*. November. Available: <https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743>. Accessed: October 6, 2020.

<sup>5</sup> An "infill site" is a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses. (Public Resources Code section 21099(a)(4))

<sup>6</sup> A TPA is an area within 0.5 mile of a major transit stop that is existing or planned. (Public Resources Code section (a)(7))

<sup>7</sup> An "employment center project" is 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 TPA. (Public Resources Code section (a)(1))

The proposed project meets the above criteria as a qualifying employment-center project for purposes of Public Resources Code Section 21099. The Specific Plan area is a qualifying infill site that is currently developed with existing various office, industrial, warehouse, and storage facilities. Further, due to the project site's proximity to the San Bruno BART station and qualifying SamTrans bus routes, the entire project site is located within a TPA. Because the project meets the three criteria above, this EIR does not consider aesthetics or parking in determining the significance of impacts under CEQA.

#### 4.1.5 Approach to Baseline Setting

Project development characteristics are typically compared to the existing physical environment to isolate impacts caused by the project on its surroundings. In other words, the existing condition (also referred to as the environmental setting) is normally the baseline against which the project's impacts are measured to determine whether impacts are significant. Compliance with existing laws, regulations, and policies, including the City's standard conditions of approval, are assumed to be part of the baseline setting against which the project's incremental impacts are assessed. The Environmental Setting subsection of each topic describes existing conditions on and around the project site, including the Phase 1 site. These existing conditions are ordinarily established as of the date that the NOP is published (May 2020). In some circumstances, however, it is appropriate to use a different baseline to identify project impacts to account for circumstances that can change over time during the course of the environmental review, project construction, and operation.

As discussed in Section 4.15, *Transportation and Circulation*, in the case of the transportation analysis, the existing condition reflects transportation conditions prior to the COVID-19 pandemic. Due to the atypical travel patterns and transit service levels during the COVID-19 pandemic, new data was not collected for the transportation analysis. Instead, to establish an existing condition that is representative of anticipated post-pandemic conditions in which the project is expected to be constructed and operated, the transportation analysis utilized local traffic data collected in 2017 and 2018 and transit service levels prior to the COVID-19 pandemic (including Caltrain service levels of five trains per hour, per direction). This approach enables analysis of an observed real-world condition and no major developments have since been completed in the immediate project area that would substantially affect traffic patterns. The same approach is used in Section 4.11, *Noise and Vibration*, with respect to transportation-related noise conditions.

#### 4.1.6 Approach to Cumulative Impact Analysis

Cumulative impacts are two or more individual effects which, when considered together, are considerable or which compound or increase environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. Cumulative impacts are impacts of the project, including Phase 1, in combination with other closely related past, present, and reasonably foreseeable probable future projects (CEQA Guidelines Section 15355[a][b]). The following factors are considered to determine the level of cumulative analysis in this EIR:

- **Similar Environmental Impacts** – A relevant project contributes to effects on resources that are also affected by a proposed project. A relevant future project is defined as one that is “reasonably foreseeable,” such as a proposed project for which an application has been filed with the approving agency or has approved funding.

- **Geographic Scope and Location** – A relevant project is located within the geographic area within which effects could combine. The geographic scope varies on a resource-by-resource basis. For example, the geographic scope for evaluating cumulative effects on air quality consists of the affected air basin, while the geographic scope for evaluating cumulative effects on traffic typically consists of the roadways within the region that could carry additional vehicles as a result of net new VMT generated by the proposed project.
- **Timing and Duration of Implementation** – Effects associated with activities for a relevant project (e.g., short-term construction or demolition, or long-term operations) would likely coincide in timing with the related effects of a proposed project.

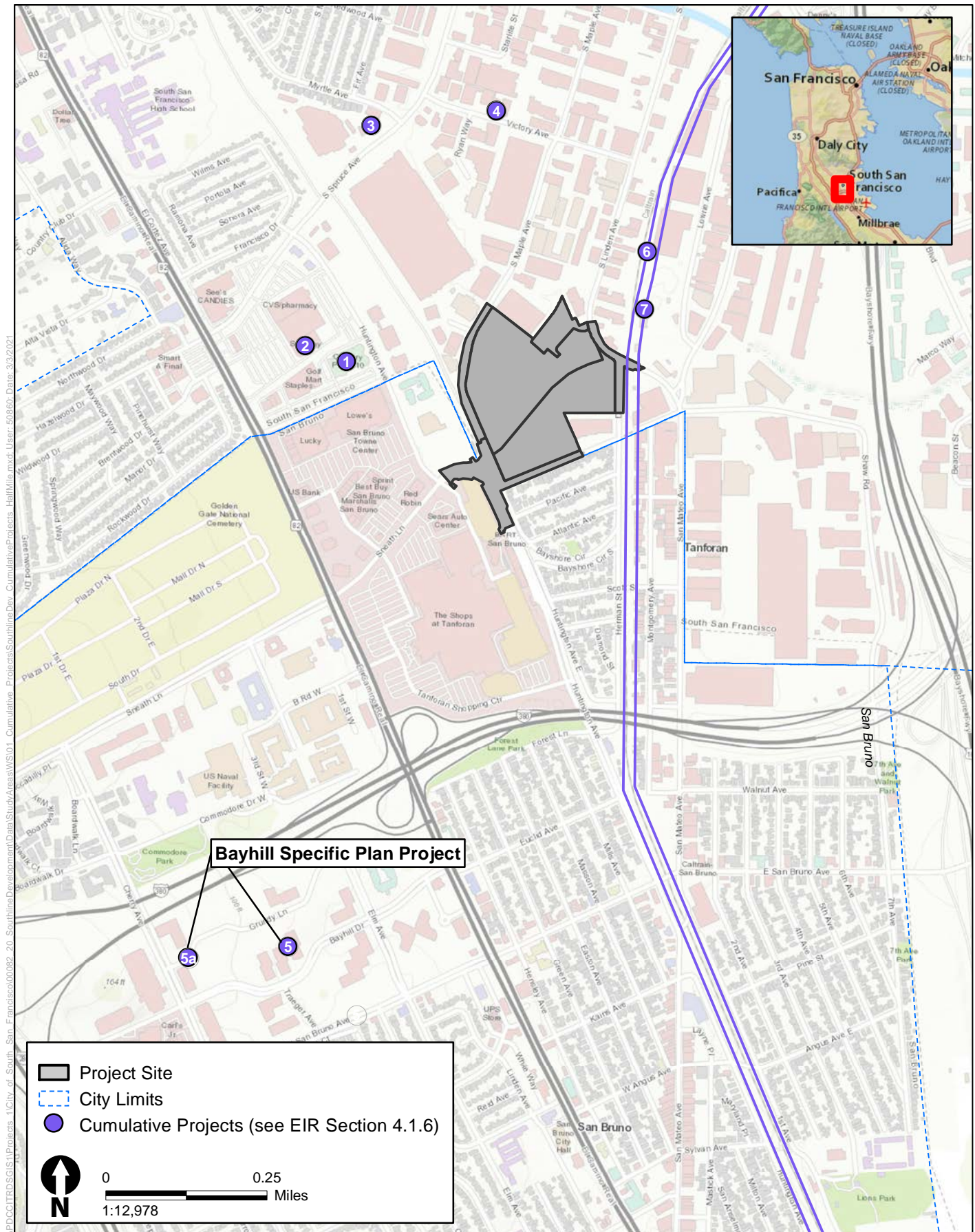
CEQA Guidelines Section 15130(b)(1) sets forth two primary approaches to the analysis of cumulative impacts. The analysis can be based on (1) a list of past, present, and probable future projects producing related impacts that could combine with those of a proposed project or (2) a summary of projections contained in a general plan or related planning document. The cumulative impact analysis in this EIR generally employs either a list-based approach or a projections approach, depending on which approach appropriately captures the cumulative context for the individual resource topic being analyzed. Cumulative analyses for topics that tend to be highly localized (e.g., biological resources, cultural resources, geology and soils, and construction impacts) use a list-based approach that includes nearby future projects anticipated in the project vicinity (i.e., within approximately 0.5 mile of the project site). Other impacts can affect existing conditions on a citywide or regional scale (e.g., air quality, GHG emissions, public services, population growth). These topics employ a projections approach towards evaluating cumulative impacts. The cumulative context for each topic is defined at the beginning of each cumulative analysis, providing a description of the approach utilized for each topic. The City is currently undertaking an update to its 1999 City General Plan, referred to as the *Shape SSF 2040 General Plan*.<sup>8</sup> The 1999 City General Plan remains active until completion and adoption of the new general plan. The general plan update is currently in progress, including initial stages of CEQA review, and is not considered in the cumulative analysis as it is anticipated that approval of the general plan update will not occur until Quarter 4 of 2022 or later.

### Cumulative Projects Within 0.5-Mile Radius

The projects utilized for the list-based approach are listed below and mapped in **Figure 4.1-1, p. 4.1-10**. Generally, these are projects for which applications had been filed with the City as of publication of the NOP for the proposed project (May 22, 2020) but construction had not begun by that date, and/or projects that the City has otherwise determined are reasonably foreseeable. No projects under construction were identified within a 0.5-mile radius of the project site. Therefore, the list of projects provided below includes projects that have been proposed or approved but not yet constructed.

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<sup>8</sup> City of South San Francisco. 2020. Shape SSF 2040 General Plan. Available: <https://shapessf.com/>. Accessed: October 6, 2020.



**Figure 4.1-1  
Cumulative Project Locations**

The following projects are located within a 0.5-mile radius of the project site (the numbers are keyed to **Figure 4.1-1, p. 4.1-10**):

1. **410 Noor Avenue:** Construction of a three- to five-story mixed-use complex with 338 residential units, and below grade parking on a 4.53-acre site. (*Entitled December, 2020; construction date to be determined*)
2. **180 El Camino Real:** Exterior modifications to the existing Safeway Shopping Center and construction of new commercial buildings fronting onto El Camino Real totaling 30,650 square feet. (*Entitled December 2017 and October 2018; construction date to be determined*)
3. **246 South Spruce Avenue:** Demolition and removal of an existing gas station and vehicle washing facility, and the construction of a fully automated vehicle washing facility. (*Entitled October, 2019; construction date to be determined*)
4. **426 Victory Avenue:** Construction of a new 4,263-square foot office and warehouse building on an existing, vacant 7,330-square foot parcel. (*Entitled January 2018; construction date to be determined*)

### Cumulative Projects within City of South San Francisco

For purposes of the cumulative analysis for historic resources, fire protection, police protection, library, and childcare services (see Section 4.13, *Public Services*, of this EIR), the list of reasonably foreseeable projects has been expanded beyond a 0.5-mile radius to include all reasonably foreseeable projects within the City limits, some of which are not yet approved and some of which are approved but not yet under construction. The list was generally established at the time of the project's NOP, with minor adjustments made during preparation of the Draft EIR to reflect updated project information. This list does not include those projects already under construction, which are considered part of baseline conditions. These reasonably foreseeable projects include mixed-use, residential, commercial/retail, office/ R&D, and hotel uses. As shown in **Table 4.1-2, p. 4.1-12**, if all projects are approved and constructed, they would provide a projected 2,926 residential units, 87,815 square feet of commercial/retail space, 5.6 million square feet of office/R&D space, and 443 hotel rooms.

**Table 4.1-2. City of South San Francisco Projects Contributing to Foreseeable Development**

<b>Location</b>	<b>Type</b>	<b>Residential (# of units)</b>	<b>Commercial/ Retail (square feet)</b>	<b>Office/R&amp;D (square feet)</b>	<b>Hotel (# of rooms)</b>
494 Forbes Blvd.	Office/R&D			326,020	
328 Roebling Rd.	Office/R&D			130,000	
475 Eccles Ave.	Office/R&D			262,287	
426 Victory Ave.	Office/warehouse			4,263	
Auto-Chlor System Building	Office/service center			31,765	
499 Forbes Blvd.	Office/R&D			128,737	
751 Gateway Blvd.	Office			208,800	
580 Dubuque Ave.	Office/R&D			213,000	
Genentech Campus Master Plan	Office/R&D			4,300,000	
Days Inn	Hotel				12
180 El Camino Real (Safeway Shopping Center)	Commercial		30,650		
Best Western Plus	Hotel				92
Wyndham Garden	Hotel				115
Sing Tao Newspapers	Commercial		11,585		
701 Airport Blvd.	Hotel				131
Camaritas Hotel	Hotel				93
150 Airport Blvd.	Residential	157			
488 Linden Ave.	Residential	38			
255 Cypress Ave.	Mixed-Use	46	6,000		
616 Maple Ave.	Residential	5			
988 El Camino Real	Mixed-Use	172	12,000		
410 Noor Ave.	Mixed-Use	338	1,000		
818-824 Linden Ave.	Mixed-Use	7	1,650		
645 Baden Ave.	Residential	8			
40 Airport Blvd.	Residential	292			
423 Commercial Ave.	Residential	4			

<b>Location</b>	<b>Type</b>	<b>Residential (# of units)</b>	<b>Commercial/ Retail (square feet)</b>	<b>Office/R&amp;D (square feet)</b>	<b>Hotel (# of rooms)</b>
200 Airport Blvd.	Mixed-Use	94	3,630		
124 Airport Blvd. and 100 Produce Ave.	Residential	480			
7 South Linden Ave.	Residential	445			
SSF PUC Site Development	Mixed-Use	800	21,300		
458 Railroad Ave.	Residential	4			
428 Baden Ave.	Residential	36			
<b>Totals</b>		<b>2,926</b>	<b>87,815</b>	<b>5,604,872</b>	<b>443</b>

Source: South San Francisco Development and Construction Map, <https://construction.ssf.net/#>, updated October 26, 2020. Accessed November 12, 2020.

## Other Cumulative Projects

Although it is outside a 0.5-mile radius of the project site, the Bayhill Specific Plan project is a reasonably foreseeable large development project in the City of San Bruno. Given the scale of the Bayhill Specific Plan project, and the potential for both projects to share certain overlapping local and regional transportation infrastructure, the Bayhill Specific Plan project has been added to the cumulative traffic model used in the cumulative transportation analysis in Section 4.15, *Transportation and Circulation*. As such, the Bayhill Specific Plan project is also included in the cumulative analysis of mobile air emissions in Section 4.2, *Air Quality*, and the cumulative analysis of traffic-generated noise in Section 4.11, *Noise*, both of which cumulative traffic volumes.

5. **Bayhill Specific Plan (marked #5 in Figure 4.1-1, p. 4.1-10):** The Specific Plan would allow for the development of up to 2.46 million net new square feet of office uses and up to 573 multi-family residential units on a 92.2-acre site. The first phase of development, referred to as the Phase I development (marked #5a in Figure 4.1-1, p. 4.1-10), would construct two new buildings with 440,000 square feet of office space, as well as a subgrade parking structure, and transportation and circulation improvements. (*Draft EIR released for public review in January 2021; Final EIR released for public review in August 2021; construction date has not yet been determined*)

In addition to adjusting for the Bayhill Specific Plan project, the forecasts for cumulative transportation conditions were adjusted to reflect other reasonably foreseeable projects that could affect cumulative traffic, including: completion of all approved employment projects in South San Francisco as of May 2020; and the operation of 12 trains per hour in each direction during peak periods along the Caltrain railroad corridor, a reasonably foreseeable condition that could result from the California High-Speed Rail Project (described below) and the Caltrain Business Plan's adopted service vision (i.e., operating eight trains per hour in each direction during peak periods).

For the purposes of the cumulative noise and vibration analysis in Section 4.11, *Noise*, two additional projects were considered in the cumulative analysis given their proximity to the project site and their potential to combine with the proposed project and result in cumulative noise and vibration impacts. These projects are the Caltrain Peninsula Corridor Electrification Project, which would include construction along the Caltrain right-of-way (ROW) and would increase trains along the ROW, and the California High-Speed Rail Project, which would include installation of four quadrant safety gates at the Linden Avenue crossing, approximately 50 feet east of the project site, and would also increase trains along the ROW.

6. **Caltrain Peninsula Corridor Electrification Project (marked #6 in Figure 4.1-1, p. 4.1-10):** The project consists of converting Caltrain from diesel-hauled to electric multiple unit (EMU) trains for service between the 4<sup>th</sup> and King Station in the City of San Francisco and the Tamien Station in the City of San Jose, a total distance of approximately 51 miles. The project would require the installation of 130 to 150 single-track miles of overhead contact system for the distribution of electrical power to the new electric rolling stock. The Caltrain electrification project is under construction now and will likely be completed before commencement of Phase 1 construction. (*Construction is ongoing*)
7. **California High-Speed Rail Project (marked #7 in Figure 4.1-1, p. 4.1-10):** Phase 1 of the High-Speed Rail system would extend from the City of San Francisco to the City of Los Angeles and is currently scheduled for completion by 2033. Specifically, the section from San Francisco

to San Jose, which would be located in proximity to the project site, would include approximately 43 to 49 miles of mixed existing train infrastructure and new high-speed rail infrastructure extending through San Francisco, San Mateo, and Santa Clara Counties. This segment would include installation of four quadrant safety gates at the Linden Avenue crossing, approximately 50 feet east of the project site, and would also increase trains along the ROW. *(Draft EIR for San Francisco to San Jose segment released for public review in July 2020; anticipated construction date: 2033)*

## 4.2 Air Quality

### 4.2.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on air quality. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes air quality modeling files and calculations (**Appendix 4.2-1**).

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. No questions or concerns related to air quality were raised in the responses to the NOP.

### 4.2.2 Environmental Setting

#### 4.2.2.1 Project Site and Phase 1 Site

As described in more detail in Chapter 3, *Project Description*, the Specific Plan area currently comprises a variety of office, industrial, warehouse, and storage facilities as well as surface parking spaces. The Phase 1 site is in the southern portion of the Specific Plan area. The off-site improvement areas, adjacent to the Specific Plan area, consist of rights-of-way and easements developed with existing circulation and utility infrastructure improvements. Together, the off-site improvement areas and Specific Plan area comprise the 33-acre project site. Because the project site is inclusive of the Phase 1 site, for purposes of the air quality analysis, the environmental setting for the project site is considered the same as the environmental setting for the Phase 1 site. Both sites are within the San Francisco Bay Area Air Basin (SFBAAB); the SFBAAB comprises the air quality study area for the project. Ambient air quality is affected by climatological conditions, topography, and the types and amounts of pollutants emitted. The sections that follow summarize how air pollution moves through the air basin and how it is chemically changed in the presence of other chemicals and particles. This section also summarizes regional and local climate conditions, existing air quality conditions, and the sensitive receptors that may be affected by project-generated emissions.

#### 4.2.2.2 Pollutants of Concern

##### Criteria Pollutants

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 carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>),

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 generated by the project are ozone precursors (i.e., nitrogen oxides [NO<sub>x</sub>] and reactive organic gases [ROGs]), CO, and PM.<sup>1,2,3</sup>

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 (Clean Air Act [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.

The 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 ROGs and NO<sub>x</sub> (both byproducts of the internal combustion engine) react with sunlight. ROGs are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle use is the major source of hydrocarbons. Other sources of ROGs 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<sub>x</sub> are nitric oxide (NO) and NO<sub>2</sub>. NO is a colorless, odorless gas that forms from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO<sub>2</sub> 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<sub>x</sub> also 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 outdoors. Exposure to ozone at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggravate 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.<sup>4</sup> 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 to the least responsive 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

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<sup>1</sup> As discussed above, there are also ambient air quality standards for SO<sub>2</sub>, lead, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing 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.

<sup>2</sup> Most emissions of NO<sub>x</sub> are in the form of nitric oxide (NO). Conversion to NO<sub>2</sub> occurs in the atmosphere as pollutants disperse downwind. Accordingly, NO<sub>2</sub> is not considered a local pollutant of concern for the project and is not evaluated further.

<sup>3</sup> Reşitoğlu, Ibrahim A. 2018. *NO<sub>x</sub> Pollutants from Diesel Vehicles and Trends in Control Technologies*. Published November 5. DOI: 10.5772/intechopen.81112. Available: <https://www.intechopen.com/books/diesel-and-gasoline-engines/no-sub-x-sub-pollutants-from-diesel-vehicles-and-trends-in-the-control-technologies>. Accessed: August 4, 2020.

<sup>4</sup> U.S. Environmental Protection Agency. 2020a. *Ground-level Ozone Basics*. Last updated: July 13. Available: <https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics#wwh>. Accessed: August 4, 2020.

the 8-hour maximum ozone concentration reaches 80 parts per billion.<sup>5</sup> The average background level of ozone in the Bay Area is approximately 45 parts per billion.<sup>6</sup>

In addition to human health effects, 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 air quality 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 CO levels.<sup>7</sup>

**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: inhalable coarse particles, or PM<sub>10</sub>, and inhalable fine particles, or PM<sub>2.5</sub>. 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 humans, especially 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 PM<sub>2.5</sub> was associated with increased risk of mortality, ranging from a 6 to 13 percent increased risk per 10 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of PM<sub>2.5</sub>.<sup>8</sup> Every 1  $\mu\text{g}/\text{m}^3$  reduction in PM<sub>2.5</sub> results in a 1 percent reduction in the mortality rate for individuals over 30 years old.<sup>9</sup> Studies also show an increase in overall mortality of approximately 0.5 percent for every 10  $\text{mg}/\text{m}^3$  increase in PM<sub>10</sub> measured the day before death.<sup>10</sup> PM<sub>10</sub> levels have been greatly reduced since 1990. Peak concentrations have

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<sup>5</sup> U.S. Environmental Protection Agency. 2016. *Health Effects of Ozone in the General Population*. Last updated: September 2. Available: <https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population>. Accessed: August 4, 2020.

<sup>6</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan, Spare the Air, Cool the Climate*. Adopted: April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: November 9, 2020.

<sup>7</sup> California Air Resources Board. 2020a. *Carbon Monoxide & Health*. Available: <https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health>. Accessed: August 4, 2020.

<sup>8</sup> California Air Resources Board. 2010. *Estimate of Premature Deaths Associated with Fine Particle Pollution (PM<sub>2.5</sub>) in California Using a U.S. Environmental Protection Agency Methodology*. August 31.

<sup>9</sup> Ibid.

<sup>10</sup> U.S. Environmental Protection Agency. 2005. *Final Report: The National Morbidity, Mortality, and Air Pollution Study – Morbidity and Mortality from Air Pollution in the United States*. Available: <https://cfpub.epa.gov/ncer/abstracts/index.cfm/fuseaction/display.highlight/abstract/2399/report/F>. Accessed: August 4, 2020.

declined by 60 percent, and annual average values have declined by 50 percent.<sup>11</sup> 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.<sup>12</sup>

## Toxic Air Contaminants

Although ambient air quality standards have been established for criteria pollutants, no ambient standards exist for toxic air contaminants (TACs). 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 California Air Resources Board (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 TACs 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 Bay Area Air Quality Management District (BAAQMD) has found that of all controlled TACs, emissions of DPM are responsible for about 82 percent of the total ambient cancer risk.<sup>13</sup> 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 U.S. Environmental Protection Agency (EPA) has determined that diesel exhaust is “likely to be carcinogenic to humans by inhalation.”<sup>14</sup>

## Odors

Offensive odors can be unpleasant and lead to citizen complaints to local governments and air districts. According to CARB’s *Air Quality and Land Use Handbook*,<sup>15</sup> land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, manufacturing facilities, and agricultural activities. CARB provides recommended screening distances for siting new receptors near existing odor sources.

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<sup>11</sup> Ibid.

<sup>12</sup> U.S. Environmental Protection Agency. 2020b. *Health and Environmental Effects of Particulate Matter (PM)*. Last updated: April. Available: <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>. Accessed: August 4, 2020.

<sup>13</sup> Ibid.

<sup>14</sup> U.S. Environmental Protection Agency. 2003. *Diesel Engine Exhaust; CASRN N.A.* February 28. Available: [https://cfpub.epa.gov/ncea/iris/iris\\_documents/documents/subst/0642\\_summary.pdf#nameddest=woe](https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0642_summary.pdf#nameddest=woe). Accessed: November 9, 2020.

<sup>15</sup> California Air Resources Board. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Available: <https://ww3.arb.ca.gov/ch/handbook.pdf>. Accessed: November 9, 2020.

### 4.2.2.3 Climate and Meteorology

Although 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 15 individual air basins, each with distinctive regional climates.

The air quality study area for the project is the San Francisco Peninsula in the SFBAAB.<sup>16</sup> 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 to 10 miles per hour (mph) throughout the peninsula. The tendency is for the higher wind speeds to be found along the western coast. However, winds on the east side of the peninsula can also be high in certain locales because low-lying areas in the mountains, at San Bruno Gap and Crystal Springs Gap, commonly allow the marine layer to pass across the peninsula.

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 are influenced by local topographic features. That is, a rise in elevation of a few hundred feet will induce a flow around a 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 flows in the surface layer, induced by upslope flows on the east-facing slopes and by the bay breeze. The bay breeze is rarely seen after noon because a 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, extending from Fort Funston on the ocean side to San Francisco International Airport (SFO) on the bay side. Because the gap is oriented in the same northwest-to-southeast direction as the prevailing winds, and because elevations along the gap are less than 200 feet, marine air is easily able to penetrate into the bay.

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<sup>16</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: August 4, 2020.

The other gap in the Santa Cruz Mountains is Crystal Springs Gap, located along State Route 92 between Half Moon Bay and San Carlos. The low point is 900 feet, but elevations reach 1,500 feet north and south of the gap. As the sea breeze strengthens on summer afternoons, the gap permits maritime air to pass across the mountains. Its cooling effect is commonly seen from San Mateo to Redwood City.

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 from the nearest monitor located at SFO, which is less than 1 mile south of the southeastern boundary of the project site. Annual average wind speeds at SFO are similar to what has been observed along the peninsula's west coast (i.e., 9 mph, with winds predominately blowing from the west).<sup>17</sup> Rainfall amounts and temperatures at SFO are also consistent with the rest of the peninsula. Rainfall amounts at SFO average 20.8 inches per year. The average maximum daily summertime and wintertime temperatures at SFO are in the mid-70s and high 40s, respectively. The average minimum daily summertime and wintertime temperatures at SFO are in the mid-60s and mid-40s, respectively.<sup>18</sup>

#### 4.2.2.4 Existing Air Quality Conditions

##### Ambient Criteria Pollutant Concentrations

A number of ambient air quality monitoring stations are located in the SFBAAB to monitor progress toward air quality standards attainment of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The NAAQS and CAAQS are discussed further under *Regulatory Framework*. There are no monitoring stations in the city. The nearest monitoring station to the proposed project is the San Francisco-Arkansas Street monitoring station, located approximately 8.5 miles northeast of the project site.

**Table 4.2-1, p. 4.2-6**, summarizes the data for criteria air pollutant levels from the San Francisco-Arkansas Street monitoring station for the last 3 years with complete data available (2017 to 2019). **Table 4.2-1** shows the monitoring station experienced violations of the federal

**Table 4.2-1. Ambient Air Quality Data at the San Francisco-Arkansas Street Monitoring Station (2017–2019)**

Pollutant Standards	2017	2018	2019
<b>Ozone (O<sub>3</sub>)</b>			
Maximum 1-hour concentration (ppm)	0.09	0.07	0.09
Maximum 8-hour concentration (ppm)	0.054	0.049	0.073
<i>Number of days standard exceeded<sup>a</sup></i>			
CAAQS 1-hour standard (> 0.09 ppm)	0	0	0
CAAQS 8-hour standard (> 0.070 ppm)	0	0	1
NAAQS 8-hour standard (> 0.070 ppm)	0	0	1

<sup>17</sup> Willy Weather. 2020. *South San Francisco Wind Forecast*. Available: <https://wind.willyweather.com/ca/san-mateo-county/south-san-francisco.html>. Accessed: November 8, 2020.

<sup>18</sup> Weather Channel. 2020. *South San Francisco, CA Monthly Weather*. Available: <https://weather.com/weather/monthly/1/58e3526471350bc59bfa920168f6bd001aa43f998b0af74fe60bea4e7ce80a23>. Accessed: November 8, 2020.

Pollutant Standards	2017	2018	2019
<b>Carbon Monoxide (CO)</b>			
Maximum 8-hour concentration (ppm)	1.4	1.7	1.0
Maximum 1-hour concentration (ppm)	2.5	2.5	1.2
<i>Number of days standard exceeded<sup>a</sup></i>			
NAAQS 8-hour standard ( $\geq 9$ ppm)	0	0	0
CAAQS 8-hour standard ( $\geq 9.0$ ppm)	0	0	0
NAAQS 1-hour standard ( $\geq 35$ ppm)	0	0	0
CAAQS 1-hour standard ( $\geq 20$ ppm)	0	0	0
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>			
State maximum 1-hour concentration (ppb)	73	69	61
State second-highest 1-hour concentration (ppb)	67	66	54
Annual average concentration (ppb)	11	11	10
<i>Number of days standard exceeded<sup>a</sup></i>			
CAAQS 1-hour standard (180 ppb)	0	0	0
<b>Particulate Matter (PM<sub>10</sub>)</b>			
National <sup>b</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	75.9	40.9	42.1
National <sup>b</sup> second-highest 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	52.7	35.7	34.2
State <sup>c</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	77.0	43.0	42.0
State <sup>c</sup> second-highest 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	53.0	37.0	35.0
National annual average concentration ( $\mu\text{g}/\text{m}^3$ )	11.0	10.0	7.5
State annual average concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>d</sup>	22.1	*	14.8
<i>Measured number of days standard exceeded<sup>a,e</sup></i>			
NAAQS 24-hour standard ( $> 150 \mu\text{g}/\text{m}^3$ )	0	0	0
CAAQS 24-hour standard ( $> 50 \mu\text{g}/\text{m}^3$ )	2	0	0
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>			
National <sup>f</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	49.9	177.4	25.4
National <sup>f</sup> second-highest 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	49.7	145.4	22.0
State <sup>g</sup> maximum 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	49.9	177.4	25.4
State <sup>g</sup> second-highest 24-hour concentration ( $\mu\text{g}/\text{m}^3$ )	49.7	145.4	22.0
National annual average concentration ( $\mu\text{g}/\text{m}^3$ )	9.7	11.6	7.6
State annual average concentration ( $\mu\text{g}/\text{m}^3$ )	9.7	11.7	7.7
<i>Measured number of days standard exceeded<sup>a</sup></i>			
NAAQS 24-hour standard ( $> 35 \mu\text{g}/\text{m}^3$ )	7	14	0

## Sources:

California Air Resources Board. 2020b. *iADAM: Air Quality Data Statistics – Top 4 Summary* (2017–2019, San Francisco County, Arkansas Street). Available: <https://www.arb.ca.gov/adam/topfour/topfourdisplay.php>. Accessed: November 8, 2020.

U.S. Environmental Protection Agency. 2018. *Outdoor Air Quality Data. Monitor Values Reports* (Carbon Monoxide, 2016–2018, San Francisco County, Arkansas Street). Last updated July 31. Available: <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>. Accessed: November 9, 2020.

## Notes:

ppb = parts per billion; ppm = parts per million; NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards;  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter, \* = insufficient data available to determine the value.

Pollutant Standards	2017	2018	2019
a. An exceedance is not necessarily related to a violation of the standard because 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.			
d. 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.			

and state 8-hour ozone standard in 2019, the federal PM<sub>2.5</sub> standard in 2017 and 2018, and the state PM<sub>10</sub> in 2017. Federal and state standards for other pollutants were not exceeded. The 2017 and 2018 monitoring results recorded the effects of smoke and ash from the wildfires that occurred in these years. Violations of ambient air quality standards indicate that certain individuals who were exposed to this pollutant may experience health effects, including an increased incidence of cardiovascular and respiratory ailments.

## Existing TAC Sources and Health Risks

BAAQMD maintains an inventory of health risks associated with all permitted stationary sources within the SFBAAB. The inventory was last updated in 2020 and is publicly available online. There are 29 stationary sources within 1,000 feet of the project site. This includes 20 auto body coating shops, three surface coating shops, two generators, one coffee roaster, one fish smoker, one asphalt concrete plant, and one concrete supply facility.<sup>19</sup> **Figure 4.2-1, p. 4.2-10**, 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 on roadways and railways. BAAQMD considers roadways with average daily traffic (ADT) levels greater than 10,000 as “high volume roadways” and recommends they be included in the analysis of health risks.<sup>20</sup> Currently, there are no major roadways or highways in the immediate vicinity of the project site (i.e., within 1,000 feet) with ADT levels greater than 10,000. However, there is one major roadway, Westborough Boulevard, which is approximately 1.2 miles northwest of the project site. There are also four highways nearby, U.S. 101 (0.4 mile to the east), State Route 82 (0.2 mile to the west), Interstate 380 (0.4 mile to the south), and Interstate 280 (1.2 miles to the west). Although these roadways are not within 1,000 feet of the project site, they would all be considered “high volume roadways” that contribute to TAC emissions at the project site and therefore were included in the impact analysis.<sup>21</sup> There are also two railways within 1,000 feet of the project site. The underground Bay Area Rapid Transit (BART) is adjacent to the western boundary of the project site; however, this is an electrically powered railway and therefore not a

<sup>19</sup> Flores, Areana. Bay Area Air Quality Management District. October 19, 2020—email to Elliott Wezerek of ICF regarding stationary-source inquiry form for the Southline Specific Plan.

<sup>20</sup> Bay Area Air Quality Management District. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May. Available: <http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf>. Accessed: November 9, 2020.

<sup>21</sup> California Department of Transportation (Caltrans). 2020. *Traffic Volumes AADT*. Caltrans GIS Data. Available: [https://gisdata-caltrans.opendata.arcgis.com/datasets/f71f49fb87b3426e9688fe66039170bc\\_0?geometry=-122.503%2C37.626%2C-122.340%2C37.649](https://gisdata-caltrans.opendata.arcgis.com/datasets/f71f49fb87b3426e9688fe66039170bc_0?geometry=-122.503%2C37.626%2C-122.340%2C37.649). Accessed: February 4, 2021.

source of DPM. The other railway, adjacent to the eastern boundary of the project site, is owned by the Union Pacific Railroad. It carries diesel-powered freight trains and Caltrain passenger trains.

**Figure 4.2-1, p. 4.2-10**, shows the existing mobile sources within 1,000 feet of the project site.

## Regional Attainment Status

Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified areas for the ambient air quality standards. The four designations are defined below.

**Table 4.2-2, p. 4.2-9**, summarizes the attainment status of San Mateo County.

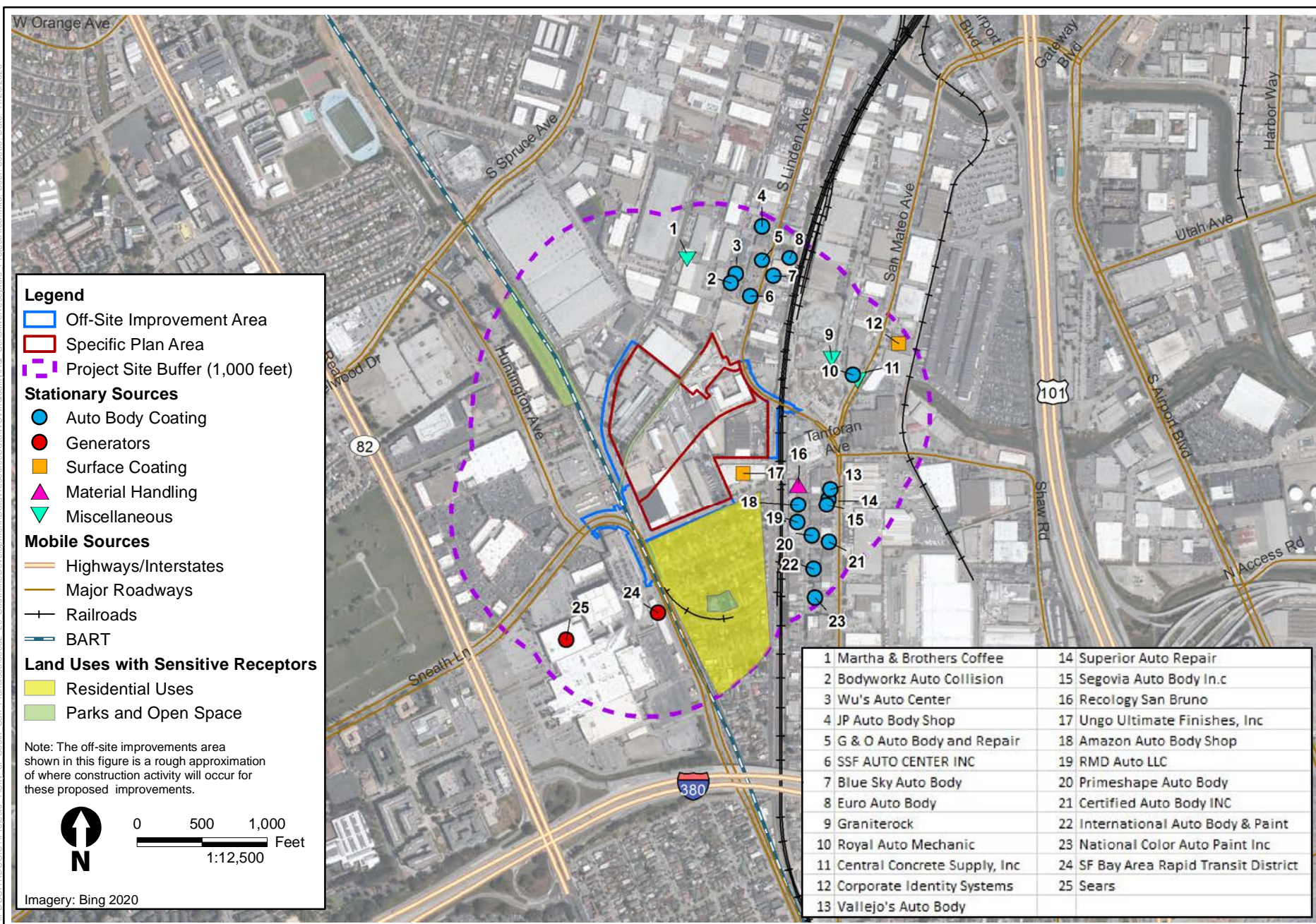
- **Nonattainment:** Assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- **Maintenance:** Assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
-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

**Table 4.2-2. Federal and State Ambient Air Quality Attainment Status for San Mateo County**

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-hour standard)	Marginal Nonattainment	Nonattainment
Carbon monoxide (CO)	Attainment	Attainment
Particulate matter (PM10)	Attainment	Nonattainment
Fine particulate matter (PM2.5)	Attainment	Nonattainment
Nitrogen dioxide (NO <sub>2</sub> )	Attainment	Attainment
Sulfur dioxide (SO <sub>2</sub> )	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(no federal standard)	Attainment
Hydrogen sulfide	(no federal standard)	Unclassified
Visibility-reducing particles	(no federal standard)	Unclassified

Sources: California Air Resources Board. 2020c. *Summaries of Historical Area Designations for State Standards* (San Mateo County). Available: <https://ww2.arb.ca.gov/our-work/programs/state-and-federal-area-designations/state-area-designations/summary-tables>. Accessed: August 4, 2020.

U.S. Environmental Protection Agency. 2020c. *Nonattainment Areas for Criteria Pollutants* (Green Book) (San Mateo County). Available: <https://www.epa.gov/green-book>. Accessed: August 4, 2020.



**Figure 4.2-1**  
Existing Air Quality Sensitive Receptors and Emission Sources in the Vicinity of the Project Site

## Locations of 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 or 8-hour standard). Per BAAQMD, typical sensitive land uses are residences, hospitals, and schools. Parks and playgrounds where sensitive receptors (e.g., children and seniors) are present are considered sensitive land uses.<sup>22</sup>

Currently, the proposed Specific Plan area consists of office, industrial, warehouse, and storage facilities and the off-site improvement areas consist of circulation and utility improvements. Places of employment (e.g., at industrial uses) are not considered sensitive land uses because health-sensitive individuals (e.g., children and seniors) are not present for a significant amount of time. Thus, the project site does not contain any sensitive receptors. There are sensitive receptors within 1,000 feet of the project site, including approximately 100 residential uses in the City of San Bruno and a recreational trail in the City of South San Francisco. Residential uses in the City of San Bruno are located southeast of the Specific Plan area, along Montgomery Avenue, and south of the Specific Plan area, along the south side of Tanforan Avenue, Pacific Avenue, Atlantic Avenue, and Bayshore Circle. The closest sensitive receptors are the residential uses on the south side of Tanforan Avenue, which are adjacent to the Tanforan Avenue improvements proposed as part of Phase 1. Centennial Way Trail, conservatively assumed to be a sensitive land use, is adjacent, north of the off-site improvement area at the Huntington Avenue intersection. **Figure 4.2-1, p. 4.2-10**, shows sensitive receptors within 1,000 feet of the Specific Plan area.

## 4.2.3 Regulatory Framework

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

This section provides a summary of the air quality plans and policies of federal, state, and local agencies that have policy and regulatory control over the project site.

### 4.2.3.1 Federal

#### Clean Air Act and National Ambient Air Quality Standards

The CAA, first enacted in 1963, has been amended in 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 states submit and implement a State Implementation Plan (SIP) for local areas that fail to meet those standards. The plans must include pollution control measures that demonstrate how the standards will be met.

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<sup>22</sup> Ibid.

The 1990 CAA amendments identify specific emissions-reduction goals for areas that fail to meet 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 4.2-3, p. 4.2-12**, shows the NAAQS currently in effect for each criteria pollutant as well as the CAAQS (discussed further below).

**Table 4.2-3. Federal and State Ambient Air Quality Standards**

Criteria Pollutant	Average Time	California Standards	National Standards <sup>a</sup>	
			Primary	Secondary
Ozone	1 hour	0.09 ppm	None <sup>b</sup>	None <sup>b</sup>
	8 hours	0.070 ppm	0.070 ppm	0.070 ppm
CO	8 hours	9.0 ppm	9 ppm	None
	1 hour	20 ppm	35 ppm	None
PM <sub>10</sub>	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
	Annual mean	20 µg/m <sup>3</sup>	None	None
PM <sub>2.5</sub>	24 hours	None	35 µg/m <sup>3</sup>	35 µg/m <sup>3</sup>
	Annual mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>
NO <sub>2</sub>	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.100 ppm	None
SO <sub>2</sub> <sup>c</sup>	Annual mean	None	0.030 ppm	None
	24 hours	0.04 ppm	0.14 ppm	None
	3 hours	None	None	0.5 ppm
	1 hour	0.25 ppm	0.075 ppm	None
Lead	30-day average	1.5 µg/m <sup>3</sup>	None	None
	Calendar quarter	None	1.5 µg/m <sup>3</sup>	1.5 µg/m <sup>3</sup>
	3-month average	None	0.15 µg/m <sup>3</sup>	0.15 µg/m <sup>3</sup>
Sulfates	24 hours	25 µg/m <sup>3</sup>	None	None
Visibility-reducing particles	8 hours	— <sup>d</sup>	None	None
Hydrogen sulfide	1 hour	0.03 ppm	None	None
Vinyl chloride	24 hours	0.01 ppm	None	None

Source: California Air Resources Board. 2016a. *Ambient Air Quality Standards*. May 4. Available: <https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed: November 9, 2020.

Notes:

ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter

<sup>a</sup>. 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.

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

<sup>c</sup>. The annual and 24-hour NAAQS for SO<sub>2</sub> apply for only 1 year after designation of the new 1-hour standard to those areas that were previously in nonattainment for the 24-hour and annual NAAQS.

<sup>d</sup>. The CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer, which equates to visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.

## Non-road Diesel Rule

EPA has established a series of increasingly strict emissions standards for new non-road (off-road) diesel equipment, on-road diesel trucks, and locomotives. New equipment, including heavy-duty trucks and off-road construction equipment, is required to comply with these emissions standards. Engine manufacturers must produce engines with advanced emission-control technologies similar to those for highway trucks and buses. Closely linked to these engine provisions are fuel requirements that decreased the allowable levels of sulfur in fuel used in nonroad diesel engines.

Tier 1 standards were phased in from 1996 to 2000; Tier 2 standards were phased in from 2001 to 2006; Tier 3 standards were phased in from 2006 to 2008; and Tier 4 standards, which may require add-on emission control equipment, were phased in from 2008 to 2015. For each tier, the phase-in schedule is driven by engine size. The Tier 4 standards require that emissions of PM and NO<sub>x</sub> be further reduced by about 90 percent below Tier 3 standards. The emission standards for each engine tier by horsepower can be viewed at the footnoted hyperlink.<sup>23</sup>

## 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 CAFE standards, which are regulatory updated to require additional improvements in fuel economy. The standards were updated in October 2012 to apply to new passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2017 through 2025. The standards are equivalent to 54.5 miles per gallon.

On August 2, 2018, NHTSA and EPA proposed to amend the fuel efficiency standards for passenger cars and light-duty trucks and establish new standards, covering model years 2021 through 2026, by maintaining the current model year 2020 standards through 2026 (i.e., Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). The Clean Air Act allows California to seek a waiver of the preemption which prohibits states from enacting emission standards for new motor vehicles. EPA had granted California waivers for decades based on its long-standing determination that California's standards are at least as protective as federal standards, are needed to meet compelling and extraordinary conditions, and are not inconsistent with Clean Air Act provisions related to technical feasibility and lead time to manufacturers. However, EPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). Part One of the SAFE Vehicles Rule went into effect on November 26, 2019, and Part Two went into effect on March 30, 2020. The SAFE Vehicles Rule will decrease the stringency of the previously adopted CAFE standards by 1.5 percent each year through model year 2026 compared with the standards issued in 2012, which would have required about 5 percent annual increases. 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.

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<sup>23</sup> DieselNet. 2017. United States: Nonroad Diesel Engines. Available: <https://dieselnet.com/standards/us/nonroad.php>. Accessed: February 4, 2021.

On February 11, 2020, *California et al. v. United States Department of Transportation et al.* was stayed pending resolution of the related litigation of *Union of Concerned Scientists v. National Highway Traffic Safety Administration* (19-1230, U.S. Court of Appeals for the District of Columbia Circuit). The Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to dismiss or transfer to the D.C. Circuit a case filed in federal court in D.C. challenging NHTSA's final rule withdrawing California's waiver for its GHG and zero-emission vehicle program and preempting state programs that regulate vehicle greenhouse gas emissions or create ZEV mandates. On February 8, 2021, the D. C. Circuit Court of Appeals issued an order holding the cases in abeyance pending regulatory review.

On January 20, 2021, President Biden released Executive Order No. 13990, which, among other things, calls for agency review for Part One of the SAFE Vehicles Rule by April 2021 and Part Two by July 2021. The order states that agencies shall consider whether to propose, suspend, revise or rescind these rules. On April 22, 2021, NHTSA proposed a rule to repeal Part One of the SAFE rule and restore California's waiver to set its own vehicle standards. The fates of the proposed rules are uncertain, given the pending court deliberations, executive order and pending rule change.

#### **4.2.3.2 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 4.2-3, p. 4.2-12**.

CARB and local air districts bear responsibility for meeting the CAAQS, which are to be achieved through district-level air quality management plans that have been incorporated into a 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.

##### **Statewide Truck and Bus Regulation**

Originally adopted in 2005, the on-road truck and bus regulation requires heavy trucks to be retrofitted with PM 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) a phased-in schedule. The compliance paths ensure that nearly all trucks and buses will have 2010 model year engines or newer by January 2023.

## 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 and on-road diesel trucks operating in California. For off-road diesel equipment, CARB's In-Use Off-Road Diesel-Fueled Fleets regulation reduces PM and NO<sub>x</sub> emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Among other things, the regulation requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies. The requirements and compliance dates vary by fleet size. More information on compliance requirements can be viewed at the footnoted hyperlink.<sup>24</sup>

For on-road diesel trucks, CARB's Heavy-Duty Low-NO<sub>x</sub> Omnibus rulemaking was adopted by CARB's Board in August 2020 and includes a very low NO<sub>x</sub> engine standard that will be phased in starting in 2024. The Advanced Clean Trucks Rule was adopted by the CARB Board in June 2020 and will implement manufacturer sales requirements beginning in 2024. The stringency of the requirements would increase gradually each year, with the goal of putting 300,000 electric trucks on California's roads by 2035 and phasing out diesel trucks by 2045. These rules, along with the Heavy-Duty Vehicle Inspection and Maintenance Program, would reduce criteria pollutants. New equipment used to construct the proposed 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 Regulation

California regulates TACs primarily through the Toxic Air Contaminant Identification and Control Act (Tanner Act) and the Air Toxics "Hot Spots" Information and Assessment Act of 1987 ("Hot Spots" Act). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act created California's program to reduce 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.

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<sup>24</sup> California Air Resources Board (CARB). 2016b. In-Use Off Road Diesel-Fueled Fleets Regulation Overview. Available: [https://ww2.arb.ca.gov/sites/default/files/classic/msprog/ordiesel/faq/overview\\_fact\\_sheet\\_dec\\_2010-final.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/msprog/ordiesel/faq/overview_fact_sheet_dec_2010-final.pdf). Accessed: September 14, 2021.

CARB has identified DPM as a TAC and approved a comprehensive Diesel Risk Reduction Plan to reduce emissions from both new and existing diesel-fueled engines and vehicles.<sup>25</sup> 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 that CARB will implement over the next several years. The project would be required to comply with any applicable diesel control measures from the Diesel Risk Reduction Plan.

#### 4.2.3.3 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 the California Environmental Quality Act (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 the NAAQS and CAAQS are met.

The project site falls under the jurisdiction of BAAQMD, which has local air quality jurisdiction over projects in the SFBAAB, including San Mateo County. BAAQMD developed advisory emissions 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).<sup>26</sup> BAAQMD has also adopted air quality plans to improve air quality, protect public health, and protect the climate, including the *Final 2017 Clean Air Plan: Spare the Air, Cool the Climate* (2017 Clean Air Plan).<sup>27</sup>

The 2017 Clean Air Plan, adopted by BAAQMD on April 19, 2017, updates the prior 2010 Bay Area ozone plan and outlines feasible measures to reduce ozone; provides a control strategy to reduce PM, air toxics, and GHGs in a single, integrated plan; and establishes the emission control measures to be adopted or implemented. 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 project would conflict with or obstruct implementation of an air quality plan. The 2017 Clean Air Plan contains the following primary goals, consistency with which is evaluated in this section:

- **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 regarding the cancer health risk from TACs
- **Protect the Climate:** Reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

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<sup>25</sup> California Air Resources Board. 2000a. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engine and Vehicles*. October. Available: <https://ww3.arb.ca.gov/diesel/documents/rrpfinal.pdf>. Accessed: August 4, 2020.

<sup>26</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: August 4, 2020.

<sup>27</sup> Bay Area Air Quality Management District. 2017a. *Final 2017 Clean Air Plan, Spare the Air, Cool the Climate*. Adopted: April 19. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: November 9, 2020.

- 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 (BACT) and emission offsets for stationary sources of air emissions. This regulation requires BACT for all new and modified sources if the source has the potential to emit any of the “District BACT Pollutants” (i.e., precursor organic compounds (POC), non-precursor organic compounds (NPOC) NO<sub>x</sub>, SO<sub>2</sub>, PM, and CO) in an amount of 10.0 or more pounds on any day.
  - If the stationary source will have the potential to emit more than 10 tons per year but less than 35 tons per year of NO<sub>x</sub> or POC or 100 tons per year of PM or SO<sub>2</sub>, then offsets (i.e., banked emission reduction credits) must be provided at a 1:1 ratio for any un-offset cumulative increase in emissions at the facility.
- **Regulation 2, Rule 5 (New Source Review of TACs):** This regulation outlines guidance for evaluating TAC emissions and their potential health risks.
- **Regulation 6, Rule 1 (PM):** This regulation restricts emissions of PM darker than a 1 on the Ringlemann Chart to less than 3 minutes in any 1 hour.
- **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 ROG in architectural coatings.
- **Regulation 9, Rule 6 (NO<sub>x</sub> Emission from Natural Gas-Fired Boilers and Water Heaters):** This regulation limits emissions of NO<sub>x</sub> generated by natural gas-fired boilers.
- **Regulation 9, Rule 8 (Stationary Internal Combustion Engines):** This regulation limits emissions of NO<sub>x</sub> and CO from stationary internal combustion engines of more than 50 horsepower.
- **Regulation 11, Rule (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.

## South San Francisco General Plan

The 1999 South San Francisco General Plan (General Plan) provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with City plans and policy standards.<sup>28</sup> The City is currently engaged in the “Shape SSF 2040” process to update the General Plan.<sup>29</sup> However, the 1999 General Plan remains active until completion and adoption of the new general plan. The General Plan contains an Open Space and Conservation Element, which outlines policies related to biological resources, water quality, air

<sup>28</sup> City of South San Francisco. 1999. *South San Francisco General Plan*. Available: <https://www.ssf.net/departments/economic-community-development/planning-division/general-plan>. Accessed: November 9, 2020.

<sup>29</sup> City of South San Francisco. 2020. *Shape SSF 2040 General Plan*. Available: <https://shapessf.com/>. Accessed: November 9, 2020.

quality, GHG emissions, and historic and cultural resources. It also includes the following policies that are applicable to air quality:

- **Guiding Principle 7.3-G-1:** Continue to work toward improving air quality and meeting all national and state ambient air quality standards by reducing the generation of air pollutants both from stationary and mobile sources, where feasible.
- **Guiding Principle 7.3-G-4:** Encourage land use and transportation strategies that promote the use of alternatives to the automobile for transportation, including bicycling, bus transit, and carpooling.
- **Guiding Principle 7.3-G-5:** Promote clean and alternative fuel combustion in mobile equipment and vehicles.
- **Guiding Principle 7.3-G-6:** Minimize conflicts between sensitive receptors and emissions generators by distancing them from one another.
- **Implementing Policy 7.3-I-1:** Cooperate with BAAQMD to achieve emissions reductions for nonattainment pollutants and their precursors, including CO, ozone, and PM10, by implementation of air pollution control measures, as required by state and federal statutes.
- **Implementing Policy 7.3-I-2:** Use the City's development review process and CEQA regulations to evaluate and mitigate the local and cumulative effects of new development on air quality and GHG emissions.
- **Implementing Policy 7.3-I-3:** Adopt the standard construction dust abatement measures included in BAAQMD's CEQA Guidelines.
- **Implementing Policy 7.3-I-9:** Promote land uses that facilitate alternative transit use, including high-density housing, mixed uses, and affordable housing served by alternative transit infrastructure.
- **Implementing Policy 7.3-I-13:** Encourage efficient, clean energy and fuel use through collaborative programs, award programs, and incentives while removing barriers to the expansion of alternative-fuel facilities and infrastructure.
- **Implementing Policy 7.3-I-14:** Ensure that design guidelines and standards support operation of alternative-fuel facilities, vehicles, and equipment.

## San Bruno Plans and Policies

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno (San Bruno) but would not develop any new structures or new land uses in San Bruno. The improvements would occur on areas that are already developed with existing circulation improvements. The specific off-site improvements located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. This section identifies and evaluates the proposed project's consistency with relevant policies from the San Bruno General Plan related to air quality as related to the portions of the off-site improvements located within San Bruno's jurisdiction. For additional discussion of the proposed project's

consistency with San Bruno land use plans and policies, refer to Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*.

### **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. 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 General Plan includes the following policies applicable to air quality that are relevant to the proposed off-site improvements in San Bruno's jurisdiction:

- ERC-E: Contribute to regional attainment by improving ambient air quality levels within San Bruno.
- ERC-26: Require dust abatement actions for all new construction and redevelopment projects.
- ERC-33: Require all large construction projects to mitigate diesel exhaust emissions through use of alternate fuels and control devices.

## **4.2.4 Impacts and Mitigation Measures**

This section describes the impact analysis related to air quality for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, eliminate, or compensate for) potentially significant impacts accompany each impact discussion, when necessary.

### **4.2.4.1 Significance Criteria**

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant air quality impact if it would:

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

As discussed above, all pollutants that would be generated by the proposed project are associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. As discussed above, the primary pollutants of concern generated by the project are ozone precursors (ROG and NO<sub>x</sub>), CO, PM, and TACs (including DPM and asbestos).

The following sections discuss thresholds and analysis considerations for regional and local project-generated criteria pollutants with respect to their human health implications. Thresholds and guidance for evaluating potential odors associated with the project area are also presented.

### **Regional Project-Generated Criteria Pollutant Emissions (Ozone Precursors and Regional Particulate Matter)**

This analysis evaluates the impacts of regional emissions generated by the project using the project-level guidance recommended by BAAQMD in its CEQA Guidelines.<sup>30</sup> While BAAQMD provides plan-level guidance for general plans, community plans, specific plans, regional plans, and congestion management plans, the City has deemed the project-level guidance more appropriate for the proposed project given that (1) the level of detail known about development under future phases allows for the quantification of regional operational emissions, and (2) the footprint of the proposed project is smaller than the typical footprints of the types of plans identified by BAAQMD (e.g., general plans, community plans, regional plans, etc.).

For Impact AQ-1, this analysis considers whether the project would conflict with the most recent air quality plan (this requirement applies to project-level as well as plan-level analyses).<sup>31</sup> The impact analysis evaluates whether the project supports the primary goals of the 2017 Clean Air Plan, including applicable control measures from the plan, and whether it would disrupt or hinder implementation of any 2017 Clean Air Plan control measures. BAAQMD *recommends* that the determination of consistency with the Clean Air Plan goals be based on whether the project is consistent with BAAQMD's project-level thresholds. These thresholds are also the basis for determining significance under Impact AQ-2a and Impact AQ-2b (discussed below). To avoid double-counting impacts, the City as the lead agency has chosen to determine the significance of Impact AQ-1 by evaluating whether the amount of growth associated with the project is consistent with the Clean Air Plan and also whether the project is consistent with the Clean Air Plan's relevant policies and control measures, rather than strictly basing the assessment on project emissions in relation to BAAQMD's project-level thresholds.

For Impact AQ-2a and Impact AQ-2b, calculated regional criteria pollutant emissions are compared to BAAQMD's project-level thresholds. BAAQMD's project-level thresholds are summarized in **Table 4.2-4, p. 4.2-21**, and recommended by the air district to evaluate the significance of a project's regional criteria pollutant emissions.<sup>32</sup> According to BAAQMD, projects with emissions in excess of the thresholds, as shown in **Table 4.2-4, p. 4.2-21**, 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.

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<sup>30</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: August 4, 2020.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

**Table 4.2-4. BAAQMD Project-Level Regional Criteria Pollutant Emission Thresholds**

<b>Analysis</b>	<b>Thresholds (Daily Average Emissions)</b>
Regional criteria pollutants (construction)	<ul style="list-style-type: none"> <li>• Reactive organic gases: 54 pounds/day</li> <li>• Nitrogen oxides: 54 pounds/day</li> <li>• Particulate matter: 82 pounds/day (exhaust only); compliance with best management practices (fugitive dust)</li> <li>• Fine particulate matter: 54 pounds/day (exhaust only); compliance with best management practices (fugitive dust)</li> </ul>
Regional criteria pollutants (operations)	<ul style="list-style-type: none"> <li>• Reactive organic gases: 54 pounds/day</li> <li>• Nitrogen oxides: 54 pounds/day</li> <li>• Particulate matter: 82 pounds/day (exhaust only)</li> <li>• Fine particulate matter: 54 pounds/day (exhaust only)</li> </ul>
Source: Bay Area Air Quality Management District. 2017b. <i>California Environmental Quality Act. Air Quality Guidelines</i> . May. Available: <a href="https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en">https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en</a> . Accessed: August 4, 2020.	

As discussed previously, air districts develop 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 that there are known, safe concentrations of criteria pollutants. Accordingly, the proposed project would expose receptors to substantial regional pollution if any of the thresholds summarized in **Table 4.2-4, p. 4.2-21**, are exceeded.

### **Localized Project-Generated Criteria Pollutant Emissions (CO and PM) and Air Toxics (DPM)**

Localized pollutants generated by a project are deposited near the emissions source and potentially affect the population near that source. Although these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. The localized pollutants of concern that would be generated by the project are CO, PM, and DPM. The applicable thresholds for each pollutant, grouped under Impact AQ-3, are described below.

#### **Carbon Monoxide**

Heavy traffic congestion can contribute to high levels of CO. Individuals who are exposed to such “hot spots” may have a greater likelihood of developing adverse health effects. Hot spots are assumed to be 10 feet from the roadway, per modeling practices.<sup>33</sup> BAAQMD has adopted screening criteria that provide a conservative indication of whether project-generated traffic would cause a potential CO hot spot. If the screening criteria are not met, then a quantitative analysis, through site-specific dispersion modeling of project-related CO concentrations, would not be necessary and the

<sup>33</sup> Garza, V. J., P. Graney, and D. Sperling. 1997. *Transportation Project-Level Carbon Monoxide Protocol*. December.

project would not cause localized violations of the CAAQS for CO. BAAQMD's CO screening criteria are summarized below.<sup>34</sup>

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

BAAQMD does not consider construction-generated CO a significant pollutant of concern because construction activities typically do not generate substantial quantities of this pollutant.<sup>35</sup>

### **Particulate Matter**

BAAQMD adopted an incremental PM<sub>2.5</sub> concentration-based significance threshold under which a "substantial" contribution at the project level for an individual source is defined as the total (i.e., exhaust and fugitive) PM<sub>2.5</sub> concentration exceeding 0.3 µg/m<sup>3</sup>. In addition, BAAQMD considers projects to have a cumulatively considerable PM<sub>2.5</sub> impact if sensitive receptors are exposed to PM<sub>2.5</sub> concentrations from local sources within 1,000 feet, including existing sources, project-related sources, and reasonably foreseeable future sources, that exceed 0.8 µg/m<sup>3</sup>.<sup>36</sup>

BAAQMD has not established PM<sub>10</sub> thresholds of significance. Although BAAQMD's PM<sub>2.5</sub> thresholds apply to both new receptors and new sources, BAAQMD considers fugitive PM<sub>10</sub> from earthmoving to be less than significant with applicable of BAAQMD's Basic Construction Mitigation Measures.

### **Diesel Particle Matter**

DPM, which has been identified as a TAC, 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 exposures 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 greater than 1.0.<sup>37</sup> The air district also 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 a hazard index greater than 10.0.

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<sup>34</sup> Bay Area Air Quality Management District. 2017b. *California Environmental Quality Act. Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: August 4, 2020.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

## Asbestos

BAAQMD considers projects that do not comply with the applicable regulatory requirements outlined in BAAQMD's Regulation 11, Rule 2, to be projects with significant impacts.

## Odors

For Impact AQ-4, BAAQMD<sup>38</sup> and CARB<sup>39</sup> 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 project analyses should identify the location of existing and planned odor sources and include policies to reduce potential odor impacts in the project area.

### 4.2.4.2 Approach to Analysis

Air quality impacts associated with construction and operation of the project, including Phase 1, 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 4.2-1**.

## Project

### Buildout Scenario Studied (Office Scenario and Life Sciences Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow development of the commercial campus as either an office or research-and-development (R&D) use, or a combination of both, with a total buildout area of up to 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified that would represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses 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.

The Office Scenario would develop up to seven buildings, which would be up to seven stories tall, with office uses as well as a four-story amenity building, for a total of 2,800,000 square feet (floor area ratio [FAR] of approximately 2.4). The Life Sciences Scenario would develop up to nine buildings, which would be up to six stories tall, with R&D uses, including laboratory and office spaces, as well as the four-story amenity building, for a total of 2,025,050 square feet (FAR of approximately 1.75).

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. Therefore, either buildout scenario represents the worst-case scenario in terms of the air quality impacts associated with construction.

On the other hand, the differences between gross square footage and land uses would influence long-term operational emissions. The R&D buildings under the Life Sciences Scenario would have a

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<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

higher energy consumption rate (in terms of kilowatt-hours per square foot of space) and higher-horsepower emergency diesel generators, which are more emissions-intensive. The Life Sciences Scenario also includes the unique emission source of up to six compressed natural gas (CNG) process boilers, which could be used to generate steam for a range of applications (e.g., intensive cleaning of manufactured equipment). However, the Office Scenario would involve more building development than the Life Sciences Scenario (i.e., an additional 774,950 square feet). Although the Office Scenario would have a lower building energy consumption rate per square foot and lower-horsepower generators and no process boilers, the increased square footage would result in higher total energy consumption compared to the Life Sciences Scenario. Furthermore, the Office Scenario would generate nearly twice as many vehicle trips by commuters compared with the Life Sciences Scenario (11,200 employees versus 5,786); mobile-source emissions typically make up the largest portion of a project's operational emissions profile. Therefore, for the analysis of criteria pollutant emissions associated with operation, the worst-case scenario is assumed to be the Office Scenario, and that scenario is evaluated in this section.

There is one exception: The Life Sciences Scenario would be the worst-case scenario for human health risks (Impact AQ-3) because the R&D buildings would be constructed with wet laboratory facilities and process boilers that would produce TACs at greater levels than office buildings. TACs would potentially expose sensitive receptors to pollutant concentrations. This is qualitatively analyzed in Impact AQ-3.

### **Construction Emissions**

The land uses that could be developed under the proposed project would generate construction-related emissions from mobile and stationary construction equipment, employee vehicles and haul trucks, land clearing and material movement, paving, and the application of architectural coatings. The construction techniques and scheduling for each development project in the Specific Plan area are not currently known. With an anticipated buildout year of 2030, development of the various land uses associated with the Specific Plan would occur over an extended period of time. As such, without specific project-level details, with the exception of Phase 1, which is described below, it is not possible to develop a refined construction emissions inventory.<sup>40</sup> Consequently, the determination of construction air quality impacts for each individual development project, or a combination of these projects, is not reasonably foreseeable and would require speculation regarding potential future project-level environmental impacts. Therefore, 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 buildout of the Specific Plan is conducted qualitatively in this EIR. However, emissions-generating activities as well as the 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 associated with the project were evaluated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2; vehicle emission factors from CARB's EMFAC2017 emissions model; and daily vehicle miles traveled (VMT) estimates.<sup>41</sup> Daily VMT under existing conditions (2018) in the traffic analysis zone (TAZ) that contains the project site was

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<sup>40</sup> Project-level information includes details such as the construction schedule, equipment fleet, and construction worker crew estimates.

<sup>41</sup> Fehr & Peers. 2021. *Southline Transportation Impact Analysis*. June.

estimated to be 258,452 miles.<sup>42</sup> Specific Plan (2040) daily VMT in the TAZ was estimated to be 566,750 miles.<sup>43</sup> VMT estimates were based on the City/County Association of Governments of San Mateo County travel demand model and then modified to account for 1) the VMT reduction associated with Southline Avenue expansion (see Section 4.15, *Transportation and Circulation*) and (2) the VMT reduction associated with the City's Transportation Demand Management (TDM) Ordinance, under which the project would be required to achieve an alternative mode share of 45 percent. Daily VMT was annualized using a factor of 347 days, consistent with CARB guidance.<sup>44</sup>

Mobile emissions from gasoline-powered light-duty vehicles (e.g., vehicles for employee commuting) were adjusted to account for the impact of implementation of Part One of the SAFE Vehicles Rule. Consistent with the capabilities of CalEEMod, this analysis does not quantify the emissions benefit from vehicle fuel switching that could be induced by electric vehicle chargers in parking spaces. See **Appendix 4.2-1** for the EMFAC2017 emission factors and traffic data utilized in this analysis.

### Operational Area- and Energy- Source Emissions

Area and energy emissions were estimated in 2030 using CalEEMod, version 2016.3.2. Area-source emissions are generated when buildings are repainted or landscape equipment and consumer products are used. Energy sources include the combustion of natural gas for heating. For all other sources, CalEEMod default values were assumed, based on the anticipated land uses of the proposed project. Consistent with the capabilities of CalEEMod, the analysis does not quantify the emissions benefit that would occur with implementation of the Specific Plan's range of non-transportation-related sustainability features: Leadership in Energy and Environmental Design (LEED) Silver rating for buildings, high-efficiency natural gas appliances, and a 10 percent improvement in energy performance compared with an American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1-2010 reference baseline building. These emissions benefits are qualitatively described in the impact analysis where applicable. See **Appendix 4.2-1** for the CalEEMod output files.

### Operational Stationary-Source Emissions

Stationary source emissions quantified in the project-level analysis only include the five emergency diesel generators that would be installed under Phase 1. Project-level emissions can be fully quantified for the other project-level operational sources (i.e., mobile, area, and energy) based on the known project-level building type, building square footage, and VMT. However, project-level stationary source emissions cannot be fully quantified because the specific location and number of generators that would be installed as part of future Precise Plans is unknown at this time. The emissions from Phase 1 generators, the locations and technical specifications of which are known, are included in the project-level emissions inventory for informational purposes. Actual project-level stationary source emissions would be higher, as it is expected that future Precise Plans will

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<sup>42</sup> The existing conditions reflect transportation conditions prior to the COVID-19 pandemic. Due to the atypical travel patterns and transit service levels during the COVID-19 pandemic, new data was not collected for this analysis.

<sup>43</sup> Ibid.

<sup>44</sup> California Air Resources Board. 2018. *EMFAC2017 Volume III – Technical Documentation*. Available: <https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf>. Accessed: November 11, 2020.

also include emergency generators. Phase 1 generators are described further under the Phase 1 approach to analysis.

While the Life Sciences Scenario could include up to six CNG process boilers, without specific details regarding their locations, a quantitative evaluation of potential health risk impacts from the boilers is not possible. They are described qualitatively, where applicable (Impact AQ-3). Further, while these boilers would emit more criteria pollutants than the stationary sources identified in the Office Scenario, due to its much higher VMT and increased building square footage, the Office Scenario as a whole would emit more criteria pollutants than the Life Sciences Scenario and thus was used as the worst case analysis. Therefore, the mass emissions from operation of the six CNG process boilers, where applicable, are not analyzed (Impact AQ-2b).

### **Carbon Monoxide Hot-Spots Modeling**

Continuous engine exhaust may elevate localized CO concentrations, resulting in “hot spots.” Receptors who are 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 analysis of CO impacts was conducted using CARB’s EMFAC2017 model, the CALINE4 dispersion model, and PM peak-hour turning movement data provided by Fehr & Peers for the San Bruno Avenue and El Camino Real intersection, located approximately 0.7 mile from the project site. This intersection did not meet BAAQMD’s CO screening criteria discussed above in Section 4.2.4.1, *Significance Criteria*. Emissions from gasoline-powered light-duty vehicles were adjusted to account for the impact of implementation of the SAFE Vehicles Rule.

Traffic conditions for the proposed project were modeled to evaluate CO hot-spot concentrations at the San Bruno Avenue and El Camino Real intersection. Receptors were placed at each intersection corner and at a standard receptor elevation of 5.9 feet.<sup>45</sup> Worst-case wind angles and meteorological conditions were modeled to estimate conservative CO concentrations at each receptor. CO concentrations from the nearest monitoring station to the project area (i.e., San Francisco-Arkansas Street, San Francisco) for 2017 through 2019 (i.e., most recent years with complete data available) were gathered and converted to a 3-year average to represent background CO levels. The output files are provided in **Appendix 4.2-1**.

### **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

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<sup>45</sup> Garza, V. J., P. Graney, and D. Sperling. 1997. *Transportation Project-Level Carbon Monoxide Protocol*. December.

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 proposed 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 proposed project is fully implemented in 2030, as the percentage of truck traffic to all vehicle traffic changes. Per CT-EMFAC 2017, in 2018, 5.4 percent of the San Mateo County fleet mix was made up of trucks, while in 2030 it is forecasted to increase to 7 percent.<sup>46</sup> Trucks have different emission profiles and are generally more emission-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 proposed 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 (2018) and quantifying emissions utilizing 2018 vehicle emissions rates instead of the reduced 2030 vehicle emission rates would not only represent a factitious scenario but would also overestimate emissions reductions and potential air quality benefits achieved by the proposed project.

Accordingly, the CEQA baseline for the purposes of the project air quality analysis is defined as buildout year (2030) conditions. Evaluating 2030-With-Project conditions against 2030-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 (2018) are also presented for informational purposes.

## Phase 1

### Construction Emissions

Construction-related emissions sources similar to those described above for the proposed project are anticipated with construction of Phase 1. Criteria pollutants were estimated using the emissions calculation methods provided in CalEEMod, version 2016.3.2, and its technical support documentation. The construction schedule, operating details for equipment, trip numbers, trip lengths, and material quantities for Phase 1, which includes the majority of the off-site

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<sup>46</sup> California Department of Transportation. 2017. *CT-EMFAC 2017*. Available: <https://dot.ca.gov/programs/environmental-analysis/air-quality/project-level-air-quality-analysis>. Accessed: February 3, 2021.

improvements, were provided by the project applicant's construction contractor.<sup>47, 48</sup> Daily construction emissions were estimated using these estimates. Please refer to **Appendix 4.2-1** for the construction modeling inputs and outputs.

### Diesel Particulate Matter Analysis

Diesel-fueled off-road equipment and trucks used during construction and emergency generators used during project operations would emit DPM that could expose nearby sensitive receptors to increased cancer and non-cancer risks. Given that Phase 1 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 191901; chronic risk assessment values presented by OEHHA; and other assumptions for model inputs from BAAQMD's *Air Toxics NSR Program Health Risk Assessment Guidelines* and *Health Risk Assessment Modeling Protocol*.<sup>49,50</sup> Note that the HRA takes into account OEHHA's most recent guidance and calculation methods from the *Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Risk Assessments*.<sup>51</sup>

The HRA analyzes health risks for nearby sensitive receptors from construction activities and the testing of emergency diesel-powered generators during project operation. The 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 (i.e., on-site equipment and off-site vehicles) and emissions from the testing of emergency backup generators. The amount of DPM emissions generated during construction was assumed to be equal to the construction mass emissions quantities for PM<sub>2.5</sub> exhaust from diesel vehicles. The amount of PM<sub>2.5</sub> emissions generated during construction was assumed to be equal to the sum of PM<sub>2.5</sub> exhaust and fugitive dust. Off-site construction vehicle emissions were apportioned to roadways and based on the percentage of total trip distance traveled within 1,000 feet of the Phase 1 site. The

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<sup>47</sup> McKinley, Jerry. DPR Construction. October 13, 2020—email to Devan Attenberry of ICF regarding Southline call to discuss outstanding data needs.

<sup>48</sup> At the time when the EIR analysis was originally conducted, the Phase 1 applicant considered three haul truck route options. The route that passed by the most sensitive receptors within 1,000 feet of the project site was modeled as a worst-case scenario for health risk impacts (See *Air Dispersion Modeling* below). Since conducting the EIR analysis, the Phase 1 applicant has removed this route from the list of potential haul route options. The incremental difference in total route length between the worst-case scenario analysis and the remaining options does not influence the air quality impact analysis for the construction mass emissions analysis. Therefore, the worst-case scenario route was retained in the construction mass emissions quantification.

<sup>49</sup> Bay Area Air Quality Management District. 2016. *Air Toxics NSR Program Health Risk Assessment Guidelines*. December. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/permit-modeling/hra\\_guidelines\\_12\\_7\\_2016\\_clean-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en). Accessed: March 31, 2020.

<sup>50</sup> Bay Area Air Quality Management District. 2020. *Health Risk Assessment Modeling Protocol*. August. Available: [https://www.baaqmd.gov/~media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd\\_hra\\_modeling\\_protocol\\_august\\_2020-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en). Accessed: November 9, 2020.

<sup>51</sup> Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Risk Assessments*. February. Available: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>. Accessed: March 31, 2020.

amount of DPM emissions generated during operations is assumed to be equal to the CalEEMod output results for diesel PM<sub>2.5</sub> exhaust from the generators.

### ***Air Dispersion Modeling***

The HRA uses EPA's AERMOD to model annual average DPM and PM<sub>2.5</sub> concentrations at nearby receptors. Modeling inputs, including emissions rates (in grams of pollutant emitted per second) and source characteristics (e.g., release height, stack diameter, plume width), were based on guidance provided by OEHHA and BAAQMD. Meteorological data were obtained from CARB for the SFO location, which is the nearest monitoring station and less than 1 mile southeast of the Phase 1 site.

Emissions from on-site construction equipment were characterized as an area source (AREAPOLY) with a release height of 0.9 meter for fugitive dust emissions and 4.1 meter for all other emissions. Nine construction area sources were modeled, which include the three discrete locations associated with the off-site improvement areas, the three buildings and parking structure, and other locations of construction activity identified by the Phase 1 applicant.

Haul and vendor truck (i.e., concrete loading trucks) emissions were characterized as line/area sources (LINEAREA) drawn onto the extent of the designated haul routes that occurred within 1,000 feet of the project site. The haul and vendor truck release heights were modeled as 0.9 meter for fugitive dust emissions and 3.4 meters for all other emissions. At the time when the EIR analysis was originally conducted, the Phase 1 applicant considered three haul truck route options. The route that passed by the most sensitive receptors within 1,000 feet of the project site was modeled as a worst-case scenario. This route includes a 0.4-mile vehicle loop that exits the Phase 1 site at the intersection of Huntington Avenue and South Maple Avenue, travels west along Sneath Lane, and then turns south onto El Camino to access I-380. This route is in the vicinity of sensitive receptor land uses (i.e., residences) along Tanforan Avenue just east of Huntington Avenue. As discussed in Section 3.6.2.13 in Chapter 2, *Project Description*, since conducting the AERMOD run for this worst-case scenario haul route, the Phase 1 applicant has removed this route from the list of potential haul route options. The remaining haul route options do not travel past any more sensitive receptors within 1,000 feet of the project site, and do not travel at a higher frequency past the previously identified sensitive receptors along Tanforan Avenue. Therefore, the use of the worst-case scenario haul route is conservative in that the reported DPM and PM<sub>2.5</sub> concentrations from haul trucks in this analysis are higher than what would occur using the other haul truck route options.

The concrete loading truck route is unaffected by changes to the haul truck route options. Concrete loading trucks would use the same 0.4-mile vehicle loop that exits the Phase 1 site at the intersection of Huntington Avenue and South Maple Avenue, and then they would continue onto Sneath Lane, turn right onto Huntington Avenue, and travel outside the 1,000-foot Phase 1 site buffer. The concrete loading trucks would then return within 1,000 feet of the Phase 1 site buffer on the east side, along South Linden Avenue, to load concrete from the concrete batch plant approximately 350 feet east of the Phase 1 site's eastern boundary.

The modeling of emissions from construction activities for Phase 1 was based on the number of construction hours and days from 2021 through 2024 (7:00 a.m. to 5:00 p.m., six days per week, excluding Sundays). To account for plume rise associated with mechanically generated construction emissions sources during the AERMOD run, the initial vertical dimension of the area source was modeled at 3.81 meters; for the line/area sources, it was modeled at 3.16 meters. The urban dispersion option was based on Phase 1 site characteristics. Off-site sensitive receptors were placed at the individual homes south of the Phase 1 site and at Centennial Way Trail, the recreational trail

adjacent to and north of the off-site improvement area at the Huntington Avenue intersection. A 20-by 20-meter receptor grid was used to place receptors. All receptors were assumed to have a height of 1.5 meters.

Operational emissions from testing of the new diesel emergency backup generators were characterized as a separate vertical point source (POINT). The location of the generators was estimated, based on the project site plan, and the urban dispersion option 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.) because testing was assumed to occur during daytime hours. Variables, including release height (from 2.85 to 3.73 meters) and stack diameter (from 0.178 to 0.353 meter), were based on the horsepower of the generators (from 500 to 1,250 horsepower), taken from comprehensive modeling information provided by CARB for a range of different generators they tested.<sup>52</sup>

A complete list of dispersion modeling inputs is provided in **Appendix 4.2-1**.

### **Risk Calculations**

The risk calculations incorporate OEHHA's age-specific factors, which 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 OEHHA's 2015 HRA guidance.<sup>53</sup> According to BAAQMD guidance, residential cancer risks assume a 30-year exposure at 24 hours per day for 350 days per year.<sup>54</sup> The risk calculations and additional assumptions are provided in **Appendix 4.2-1**.

### **Operational Mobile-Source Emissions**

Air quality impacts from motor vehicles associated with Phase 1 were evaluated using the same method and models (e.g., EMFAC2017, CalEEMod) described above for the Specific Plan. Phase 1 (2024) daily VMT was estimated to be 335,006 miles.<sup>55</sup>

### **Operational Area- and Energy-Source Emissions**

Air quality impacts from other operational sources associated with buildout of Phase 1 were evaluated using the same methods and models (e.g., CalEEMod) described above for the Specific Plan.

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<sup>52</sup> California Air Resources Board. 2000b. *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*. Available: <https://ww2.arb.ca.gov/sites/default/files/classic/diesel/documents/rmgfinal.pdf>. Accessed: November 9, 2020.

<sup>53</sup> Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Risk Assessments*. February. Available: <https://oehha.ca.gov/media/downloads/crnrr/2015guidancemanual.pdf>. Accessed: March 31, 2020.

<sup>54</sup> Bay Area Air Quality Management District. 2016. *Air Toxics NSR Program Health Risk Assessment Guidelines*. December. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/permit-modeling/hra\\_guidelines\\_12\\_7\\_2016\\_clean-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en). Accessed: March 31, 2020.

<sup>55</sup> Ibid.

## Operational Stationary-Source Emissions

Sources of stationary emissions under Phase 1 include five emergency diesel generators. Daily and annual stationary source emissions were estimated in 2030 using CalEEMod, version 2016.3.2. Generator emissions factors were based on the makes and models identified by the project applicant.<sup>56, 57, 58</sup> The generator horsepower and hours of use were also based on information provided by the Phase 1 applicant.<sup>59</sup> Per the National Fire Protection Association (NFTA) 110 code/standard for emergency and standby power systems, each generator is required to be tested a minimum of 30 minutes per month. It was assumed that all generators would be run on the same day of the month. Additionally, every 36 months (3 years), each generator would run a 4-hour continuous full load test. It was assumed that generators would run under full load, which is the most emissions-intensive load. **Table 4.2-5, p. 4.2-31**, summarizes the generator equipment specifications and testing schedule. Note that only the maximum daily generator activity is relevant to Impact AQ-2b, discussed further below, given the BAAQMD emission thresholds are on a daily timescale. See **Appendix 4.2-1** for the CalEEMod output files and generator emissions factors.

**Table 4.2-5. Phase 1 Emergency Generator Technical Specifications and Testing Schedules**

Generator	Building <sup>1</sup>	HP Bin <sup>2</sup>	Max Hours per Testing Day (Normal Testing Scenario) <sup>3</sup>	Max Hours per Testing Day (Full Load Testing Scenario) <sup>4</sup>	Max Hours per Year <sup>5</sup>
1	1	1,700	0.5	4	50
2	1	1,700	0.5	4	50
3	2	700	0.5	4	50
4	7	1,700	0.5	4	50
5	7	1,700	0.5	4	50
<b>Total</b>			<b>2.5</b>	<b>20</b>	<b>250</b>

HP = horsepower; max = maximum

<sup>1</sup> Generators listed include only those known for the buildings constructed as part of Phase 1. Additional generators may be installed as part of development constructed under future Specific Plans, but their locations and specifications are unknown at this time.

<sup>2</sup> The project applicant provided the kilowattage (kW) of each generator. The kW was converted into HP and then conservatively rounded up into the appropriate HP bin used by CalEEMod for calculating generator emissions.

<sup>3</sup> During the normal testing scenario, each generator would be tested for 30 minutes on the same day. The normal testing scenario would occur once a month.

<sup>4</sup> During the full load testing scenario, each generator would be tested for 4 hours on the same day. The full load testing scenario would occur once every 36 months (3 years).

<sup>5</sup> CARB's Airborne Toxic Control Measure for Stationary Compression Ignition Engines and Section 330.3 of BAAQMD Regulation 9, Rule 8, restricts annual generator operation to 50 hours per year.

<sup>56</sup> Cummins, Inc. 2017a. *Exhaust Emission Data Sheet 1250DQGAE*. Available: [https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary\\_Asset/pdf/Commercial/Datasheets/Emissions/eds-1110.pdf](https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary_Asset/pdf/Commercial/Datasheets/Emissions/eds-1110.pdf). Accessed: November 11, 2020.

<sup>57</sup> Cummins, Inc. 2017b. *Exhaust Emission Data Sheet 1500DQGAF*. Available: [https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary\\_Asset/pdf/Commercial/Datasheets/Emissions/eds-1111.pdf](https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary_Asset/pdf/Commercial/Datasheets/Emissions/eds-1111.pdf). Accessed: November 11, 2020.

<sup>58</sup> Cummins, Inc. 2018. *Exhaust Emission Data Sheet 500DFEK*. Available: [https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary\\_Asset/pdf/Commercial/Datasheets/Emissions/eds-173.pdf](https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary_Asset/pdf/Commercial/Datasheets/Emissions/eds-173.pdf). Accessed: November 11, 2020.

<sup>59</sup> Meyers+ Engineers. 2020. *Southline CEQA Response*. May.

## CO Hot-Spots Modeling

CO hot-spot concentrations at the San Bruno Avenue and El Camino Real intersection associated with buildout of Phase 1 were evaluated using the same methods and models (e.g., EMFAC2017, CALINE4) described above for the Specific Plan.

## Selection of Future Year Baseline Conditions

Similar to the project air quality analysis, utilizing existing conditions to evaluate criteria pollutant impacts of Phase 1 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, **p. 4.2-26**). Accordingly, the CEQA baseline for the purposes of this air quality analysis is defined as Phase 1 buildout year (2024) conditions. Where appropriate, emissions under existing conditions (2018) are also presented for informational purposes.

### 4.2.4.3 Impacts Evaluation

**Impact AQ-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan. (*Project: Less than Significant; Phase 1: Less than Significant*)**

#### Project and Phase 1

The CAA requires a SIP or an air quality control plan to be prepared for areas with air quality that violates 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 nonattainment air pollutants or their precursors, as averaged every consecutive 3-year period, unless an approved alternative measure of progress is developed. Air quality attainment plans (AQAPs) 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.<sup>60</sup>

According to BAAQMD's CEQA Guidelines, the determination of 2017 Clean Air Plan consistency should consider the following for both project-level and plan-level analyses:<sup>61</sup>

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

BAAQMD recommends that the determination of consistency with the Clean Air Plan goals be based on whether the project is consistent with BAAQMD's project-level thresholds. These thresholds are also the basis for determining significance under Impact AQ-2a and Impact AQ-2b (discussed below). To avoid double-counting impacts (i.e., using a redundant significance determination criterion in both Impact AQ-1 and Impacts AQ-2a AQ-2b), the City as the lead agency has chosen to determine the significance of Impact AQ-1 by evaluating whether the amount of growth associated with the project is consistent with the Clean Air Plan and also whether the project is consistent with

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<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

the Clean Air Plan's relevant policies and control measures, rather than strictly basing the assessment on project emissions in relation to BAAQMD's project-level thresholds.

Each of these questions is addressed below for the proposed project.

### ***Support of 2017 Clean Air Plan Goals***

The primary goals of the 2017 Clean Air Plan are to 1) attain the CAAQS and NAAQS, 2) eliminate disparities among Bay Area communities in the cancer health risk from TACs, and 3) reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. As discussed below, the Specific Plan includes numerous objectives and design features that will support regional attainment of the CAAQS and NAAQS and, therefore, would not prevent attainment of the state and national air quality standards. For example, the design and location of the project would decrease regional VMT per service population and corresponding mobile emissions per service population because the project site would be an infill site (i.e., not contributing to sprawl), a transit-oriented site (i.e., near multiple rail and bus transit stations), and in proximity to a mix of uses (i.e., a diversity of land use types). All of these project features promote alternative transportation options not only for the proposed project but for existing and future development in the surrounding area (e.g., residents and business would have access to nearby retail options with construction of the amenities building). Alternative transportation options are less emissions-intensive compared to single occupied vehicles. Also, several objectives of the Specific Plan would support a decrease in VMT per service population and corresponding mobile emissions. These objectives are to provide an extensive pedestrian network, promote alternatives to automobile transportation, and create pedestrian and bicycle access to surrounding transit stations. Additional objectives call for the incorporation of energy conservation features in building designs. Project features that would decrease reliance on fossil-fueled vehicles by users of the project site include a TDM Plan, aimed to achieve a mode share of 45 percent; mobility hubs with shuttles; electric vehicle charging spaces; bicycle lanes; and short- and long-term bicycle parking supported by on-site showers and lockers. All buildings would meet the United States Green Building Council's LEED, version 4, Silver rating requirements; improve energy performance by 10 percent compared with an ASHRAE 90.1-2010 reference baseline building; and be encouraged to be designed as all-electric buildings or use high-efficiency natural gas appliances, all of which would decrease the on-site consumption of natural gas. Lastly, area-source emissions from maintenance equipment would be reduced by the provision of exterior electrical power infrastructure to support electric landscaping equipment in place of gasoline-fueled equipment.

The Specific Plan objectives and design features would not only reduce the Specific Plan's contribution to regional criteria pollutant emissions per service population, but would also reduce emissions of GHGs per service population as well. Additional design features that would reduce emissions of GHGs include a Specific Plan requirement that calls for the project to utilize 100 percent carbon-free electricity for all operational electricity needs through participation in programs such as PG&E Solar Choice or Peninsula Clean Energy, measures that support indoor and outdoor water conservation, the use of drought-tolerant landscaping, the provision of extensive recycling and composting facilities, and increased carbon sequestration from a net increase in trees and vegetation.

Similar to the Specific Plan, Phase 1 would incorporate the above sustainability features that support the primary goals of the 2017 Clean Air Plan. Specifically, Phase 1 would result in the

addition of 83 electric vehicle charging spaces, 18 short-term bicycle parking spaces, 176 long-term bicycle parking spaces, 149 net new trees, and increased vegetation at the Tanforan Avenue Community Parklet. Furthermore, Phase 1 would comply with all applicable City and state measures, including the South San Francisco Municipal Code, Title 24, Part 6; California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards; and the 2016 California Green Building Standards Code, commonly referred to as CALGreen.

Based on the above analysis, the proposed project, inclusive of Phase 1, would support the primary goals of the 2017 Clean Air Plan.

### ***Support Applicable Control Measures and Their Implementation***

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 proposed project are related to transportation, energy, green buildings, waste management, water, and stationary-source controls. 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), which 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, adopt transit benefit ordinances to reduce transit costs for employees, and 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) and fund bicycle lanes, routes, paths, and 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, and 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 programs, community resource teams, a plug-in electric vehicle outreach campaign, and the Spare the Air Youth Program.
- 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 the 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 programs through 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 on-site 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 the Association of Bay Area Governments’ 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 furnaces, water heaters, 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.
- 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 the 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 DPM and black carbon from backup generators through Draft Rule 11-18, resulting in reduced health risks for affected individuals and climate protection benefits.

The proposed project would include design features that would support emissions reductions in the transportation sector. For instance, the proposed project's TDM Plan would promote transit and pedestrian connectivity and support transit priority measures (Measure TR9). The proposed project would improve connections to existing transit infrastructure (Measures TR2 and TR8). Other improvements, such as electric charging stations and bicycle parking, would support alternative modes of transportation within the Specific Plan area (Measures TR8, TR9, and TR14). The proposed project, through its TDM Plan, would implement on-site TDM measures and programs aimed at trip reduction, such as on-site mobility hubs. (Measures TR1, TR13, and TR15). In addition, the proposed project would implement a number of sustainability features, such as buildings with a LEED Silver rating and buildings that would be supplied with 100 percent carbon-free electricity (Measures BL1, BL2, and EN2); green infrastructure (e.g., biotreatment areas and other low-impact development) (Measures BL1 and NW2); low-flow shower heads, aerators, and toilets (Measure WR2); and recycling and compost facilities to reduce resource consumption as well as GHG emissions (Measures WA3 and WA4). The proposed project would be designed to meet the standards of the South San Francisco Municipal Code and CALGreen building code (Measures BL2 and EN2). Furthermore, it would result in a net tree gain (approximately 419 trees) (Measure NW2). Shrubs and biotreatment plantings, as opposed to grass areas, would be installed to reduce emissions associated with the use of lawn and garden equipment (Measure TR23). To reduce associated health risks and air quality impacts, the proposed emergency generators would be subject to the permit authority of BAAQMD (Measure SS32).

Based on the above analysis, the proposed project, inclusive of Phase 1, would generally support the applicable control measures and their implementation, as identified in the 2017 Clean Air Plan.

#### ***Disrupt or Hinder Implementation of 2017 Clean Air Plan Control Measures***

As discussed above, the objectives and sustainable design features of the Specific Plan would address issues related to transportation, energy, green building, waste management, water, and stationary-source controls. It would not disrupt, delay, or otherwise hinder implementation of any applicable control measure from the 2017 Clean Air Plan. Rather, the proposed project would support and facilitate implementation of control measures.

Based on the above analysis, the proposed project, inclusive of Phase 1, would support implementation of applicable 2017 Clean Air Plan control measures. Therefore, the Specific Plan and Phase 1 would not fundamentally conflict with the 2017 Clean Air Plan and would have a **less-than-significant** air quality impact. No mitigation is required.

**Impact AQ-2a: Construction of future Precise Plans under the Specific Plan, not including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal (ozone) or state (ozone and PM) ambient air quality standard during construction. (Project: Significant and Unavoidable; Phase 1: Less than Significant with Mitigation)**

### Project

Under both the Life Sciences Scenario and Office Scenario, construction associated with the new land use developments that would be permitted under the proposed Specific Plan would result in the temporary generation of ozone precursors (ROG, NO<sub>x</sub>), CO, and PM emissions that could result in short-term impacts on ambient air quality within the project site. Emissions would originate from construction equipment exhaust, employee and haul truck vehicle exhaust, land clearing, 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 1 Precise Plan is the only development proposal under the Specific Plan. As discussed in Chapter 3, *Project Description*, of this EIR, the project applicant has identified additional phases for future development permitted under the Specific Plan. Because the timing and intensity of future development projects are not known at this time, the precise effects of construction activities associated with buildout of the Specific Plan area cannot be accurately quantified. Although the construction emission impacts associated with each new individual development would be short term in nature and limited to the period of time when construction activity is taking place for that particular development, concurrent construction of a multitude of individual development projects under the Specific Plan would generate combined criteria pollutant emissions on a daily basis that could exceed BAAQMD project-level thresholds for ROG, NO<sub>x</sub>, and PM exhaust.<sup>62</sup> In addition, depending on the size and scale of an individual development project, along with its construction schedule and other parameters, there may also be instances in which daily construction emissions generated by a single development project within the Specific Plan area could exceed BAAQMD's criteria pollutant thresholds. (See quantification of estimated Phase 1 construction emissions below for an indicative example). As such, construction emissions generated by implementation of the Specific 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, could contribute to short- and long-term human health effects if left unmitigated.

In addition, BAAQMD's CEQA Guidelines consider fugitive dust impacts to be potentially significant without application of best management practices (BMPs). If left unmitigated, implementation of the Specific Plan would result in a potentially significant impact related to construction-related fugitive dust emissions. Implementation of **Mitigation Measure AQ-1** would reduce this potentially significant impact on air quality to a less-than-significant level by requiring implementation of BAAQMD's BMPs to reduce construction-related fugitive dust emissions, including any cumulative impacts.

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<sup>62</sup> BAAQMD does not have mass emission thresholds for PM dust or CO.

During construction of a development project, the activity that typically generates the highest NO<sub>x</sub> 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-2** through **AQ-5**, the use of at least Tier 4 engines and renewable diesel, which is commercially available in the San Francisco Bay Area, for off-road equipment and newer trucks to reduce NO<sub>x</sub> and PM exhaust emission levels as well as the use of paints with a low VOC content to reduce ROG emissions levels would be required during construction at the project site. However, there could be foreseeable conditions under the Specific Plan in which the amount of construction activity for an individual development project, or combination of projects, could result in the generation of pollutant emissions that would exceed their respective BAAQMD significance thresholds. Moreover, even with implementation of **Mitigation Measures AQ-2** through **AQ-5**, in addition to the sustainability design features and Specific Plan objectives described under Impact AQ-1, emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> may not be reduced to levels below BAAQMD's thresholds. Accordingly, additional mitigation would be required to reduce the emissions impacts to a less-than-significant level.<sup>63</sup>

Pursuant to **Mitigation Measure AQ-6**, applicants of future Precise Plans (not including Phase 1) would be required to track all land use development construction activities occurring under the Specific Plan, assess and determine total emissions for all concurrent construction activities (subject to City review and approval), and work with a third-party or governmental entity to fund emissions reduction projects to offset pollutant emissions, as necessary to reduce emissions below BAAQMD's daily pollutant thresholds. Example offset projects include electrification of stationary internal combustion engines; replacing old trucks with new, cleaner, more efficient trucks; and other stationary and mobile source emissions-reducing projects.

Based on recent precedent regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and that emissions can be reduced to levels below threshold levels. Should offset programs be available for future development, **Mitigation Measure AQ-6** would ensure that construction-related emissions would not contribute to a significant level of air pollution such that regional air quality within the SFBAAB would be degraded; 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 under the Specific Plan, for the purposes of this EIR analysis, construction air quality impacts related to emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are conservatively assumed to be **significant and unavoidable**.

#### ***Health Impacts of Regional Criteria Pollutants (Construction)***

The California Supreme Court, in *Sierra Club v. County of Fresno* (6 Cal. 5<sup>th</sup> 502), reviewed the long-term regional air quality analysis contained in the EIR for the proposed Friant Ranch Specific Plan (Friant Ranch Project). The Friant Ranch Project is a 942-acre master plan development in unincorporated Fresno County, which is part of the San Joaquin Valley Air Basin, an area that is currently in nonattainment status under the NAAQS and CAAQS for ozone and PM<sub>2.5</sub>. The California

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<sup>63</sup> This analysis considered a mitigation measure requiring the staggering of activity schedules for concurrent construction activities to avoid triggering daily exceedances of the BAAQMD thresholds. This mitigation was deemed infeasible given the complexity of coordination required between multiple developers and the anticipated financial implications from delaying project schedules.

Supreme Court found that the Friant Ranch Project EIR's air quality analysis was inadequate because, although it disclosed that air quality impacts would be significant and unavoidable, 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 provides that environmental documents must attempt to connect a project's significant regional 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 (e.g., ozone precursors and PM) generated by the project would be 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 (i.e., ROG and NO<sub>x</sub>) contribute to the formation of ground-borne ozone on a regional scale. Emissions of ROG and NO<sub>x</sub> 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 pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known or extrapolated across regional populations.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. Although 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 relatively 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 for relatively small projects (relative to the size of the regional air basin).

The technical limitations of existing models for correlating project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast Air Quality Management District (SCAQMD), which provided amici curiae briefs for the Friant Ranch legal proceedings. In its brief, the SJVAPCD acknowledged that, although 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." <sup>64, 65</sup>

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<sup>64</sup> SJVAPCD further noted that emissions solely from the Friant Ranch Project, which equate to less than one-tenth of 1 percent of the total NO<sub>x</sub> and VOC in the San Joaquin Valley, "are not likely to yield valid information" and that any such information would not be "accurate when applied at the local level."

<sup>65</sup> San Joaquin Valley Air Pollution Control District. 2015. *Final Staff Report*. Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document. May 28. Available: <https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf>. Accessed: September 2, 2021.

As discussed above, BAAQMD's regional thresholds, as presented in **Table 4.2-4, p. 4.2-21**, 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 that there are known, safe concentrations of criteria pollutants below these thresholds. 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; therefore, 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 an 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. Therefore, the project's incremental contribution cannot be traced to specific health outcomes on a regional scale, and a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis. All feasible mitigation is being applied to reduce construction-period of ozone precursors and PM to below BAAQMD thresholds, where feasible.

### Phase 1

Construction of Phase 1 is scheduled to commence in late 2021 and end in early 2024. The types of construction emissions generated by Phase 1 would be similar to those described above for the project. Construction activities would include demolition of structures and parking lots throughout the Specific Plan area (i.e., extending beyond the boundary of the Phase 1 site), the removal of trees, excavation, grading, paving, utility installations, construction of the majority of the off-site improvements, construction of three new buildings and a parking structure, and public realm improvements including landscaping. Estimated unmitigated criteria pollutant emissions are presented in **Table 4.2-6, p. 4.2-40**.

**Table 4.2-6. Estimated Unmitigated Criteria Pollutant Average Daily Emissions from Construction of Phase 1 (pounds/day)**

Construction Year	ROG	NO <sub>x</sub>	CO	PM10		PM2.5	
				Dust	Exhaust	Dust	Exhaust
2021	6	<b>55</b>	35	11	2	3	2
2022	13	<b>127</b>	97	20	5	8	5
2023	37	37	48	14	1	4	1
2024	< 1	< 1	< 1	< 1	< 1	< 1	< 1
BAAQMD Threshold	54	54	None	BMPs	82	BMPs	54
Exceed Threshold?	No	<b>Yes</b>	N/A	—	No	—	No

Source: See **Appendix 4.2-1** for construction modeling outputs.

Notes:

Exceedances of BAAQMD thresholds are underlined.

ROG = reactive organic gases; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM10 = particulate matter no more than 10 microns in diameter; PM2.5 = particulate matter no more than 2.5 microns in diameter; BAAQMD = Bay Area Air Quality Management District; BMPs = best management practices.

As shown in **Table 4.2-6, p. 4.2-40**, construction of Phase 1 would generate NO<sub>x</sub> emissions in excess of BAAQMD's significance threshold during construction and result in a potentially significant air

quality impact. These emissions, if left unmitigated, could contribute to a ground-level formation of ozone in the SFBAAB, which, at certain concentrations, could contribute to short- and long-term human health effects. San Mateo County does not currently attain the ozone CAAQS and NAAQS (see **Table 4.2-2, p. 4.2-9**). Certain individuals residing in areas that do not meet the ambient air quality standards, including South San Francisco, could be exposed to pollutant concentrations that could cause or aggravate acute and/or chronic health conditions (e.g., asthma, premature mortality). Although construction of Phase 1 would contribute to future NO<sub>x</sub> emissions, daily construction-generated emissions represent approximately 0.02 percent of total NO<sub>x</sub> in the SFBAAB.<sup>66</sup> As previously discussed, the magnitude and location of any potential change in ambient air quality, and therefore health consequences, from additional emissions cannot be quantified with a high level of certainty because of the dynamic and complex nature of pollutant formation and distribution. However, it is known that public health will continue to be affected in South San Francisco so long as the region does not attain the CAAQS or NAAQS. Implementation of **Mitigation Measure AQ-2** would reduce this potentially significant impact on air quality to a less-than-significant level by requiring Tier 4 Final engines in construction equipment, thereby reducing Phase 1 construction NO<sub>x</sub> emissions to below BAAQMD's significance threshold, as shown in **Table 4.2-7, p. 4.2-41**.

**Table 4.2-7. Estimated Mitigated Criteria Pollutant Average Daily Emissions from Construction of Phase 1 (pounds/day)**

Construction Year	ROG	NO <sub>x</sub>	CO	PM10		PM2.5	
				Dust	Exhaust	Dust	Exhaust
2021	2	27	32	8	< 1	2	< 1
2022	4	47	82	14	1	5	1
2023	33	22	43	14	< 1	4	< 1
2024	< 1	< 1	< 1	< 1	< 1	< 1	< 1
BAAQMD Threshold	54	54	None	BMPs	82	BMPs	54
Exceed Threshold?	No	No	N/A	—	No	—	No

Source: See **Appendix 4.2-1** for construction modeling outputs.

Notes:

ROG = reactive organic gases; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; PM10 = particulate matter no more than 10 microns in diameter; PM2.5 = particulate matter no more than 2.5 microns in diameter; BAAQMD = Bay Area Air Quality Management District; BMPs = best management practices.

BAAQMD's CEQA Guidelines consider fugitive dust impacts to be potentially significant without application of BMPs. Implementation of **Mitigation Measure AQ-1** would reduce this potentially significant impact on air quality to a less-than-significant level by requiring implementation of BAAQMD's BMPs to reduce construction-related fugitive dust emissions, including any cumulative impacts. As such, construction of Phase 1 would not be expected to contribute a significant level of air pollution such that air quality within the SFBAAB would be degraded. Consequently, the impact from construction-generated criteria pollutant emissions for Phase 1 would be *less than significant with mitigation*.

<sup>66</sup> NO<sub>x</sub> emissions reported in the 2017 Clean Air Plan totaled 300 tons per day. Unmitigated project-generated NO<sub>x</sub> emissions would be 107 pounds per day, which equates to 0.0535 ton per day.

***Health Impacts of Regional Criteria Pollutants (Construction)***

See discussion of health impacts related to project construction emissions above.

**Mitigation Measure AQ-1: Require Fugitive Dust Best Management Practices (All Phases)**

All applicants proposing development of projects within the project site, including the Phase 1 applicant, shall require their contractors, as a condition of contract, to reduce construction-related fugitive dust by implementing BAAQMD's basic control measures at all construction and staging areas. The following measures are to be required as such contract conditions and are based on BAAQMD's current CEQA guidelines:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet-power vacuum street sweepers at least once per day. The use of dry-power sweeping shall be 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 shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.
- A publicly visible sign shall be posted with the telephone number and the name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of BAAQMD shall also be visible to ensure compliance.

**Mitigation Measure AQ-2: Require at Least Tier 4 Final Engines on Construction Equipment (All Phases)**

All applicants proposing development of projects within the project site, including the Phase 1 applicant, shall require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment operates with at least EPA-approved Tier 4 Final or newer engines. Exemptions can be made for specialized equipment when 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. At least 95 percent of off-road equipment must operate with at least an EPA-approved Tier 4 Final or newer engine.

**Mitigation Measure AQ-3: Require Use of Diesel Trucks with 2010-Compliant Model Year Engines (Future Phases Only)**

Applicants of future Precise Plans other than Phase 1 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 CARB's EMFAC2017 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 it is not feasible to locate such engines following a good-faith effort.

**Mitigation Measure AQ-4: Require Construction Fleet to Use Renewable Diesel (Future Phases Only)**

Applicants of future Precise Plans other than Phase 1 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 operates on renewable diesel (such as high-performance renewable diesel). Exemptions can be made for specialized equipment that cannot operate with renewable diesel or if renewable diesel is not commercially available. The contractor must provide documentation to the City showing that specialized equipment cannot use renewable diesel and that a good-faith effort to obtain renewable diesel was conducted.

**Mitigation Measure AQ-5: Require Low-VOC Coatings during Construction (Future Phases Only)**

Applicants of future Precise Plans other than Phase 1 shall require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings with a VOC content of 10 grams/liter or less are used during construction. The applicant shall submit evidence of the use of low-VOC coatings to BAAQMD prior to the start of construction.

**Mitigation Measure AQ-6: Purchase of Mitigation Credits for Construction Emissions Exceeding BAAQMD's Daily Pollutant Thresholds (Future Phases Only)**

Applicants of future Precise Plans other than Phase 1 shall compare their project size with the BAAQMD screening sizes appropriate to their project for construction criteria pollutants, as found in Table 3-1 in BAAQMD's current CEQA Guidelines (2017). The screening limit for general office buildings, an office park, or a government office building is 277,000 square feet. The screening limit for general light industrial buildings, including Research and Development uses, is 259,000 square feet. If the project is less than the screening limit for its project type, the applicant shall disclose 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) or simultaneous occurrence of construction with other Specific Plan development,
- Simultaneous construction of more than one land use type,
- Extensive site preparation (i.e., greater than default assumptions used by the CalEEMod model for grading, cut and 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 five conditions above, then no further action shall be required. 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 Precise Plan application to the City. The City will review the estimate and confirm whether offsets are required for construction. If the City-confirmed estimate indicates that the proposed development estimate would not result in construction emissions exceeding BAAQMD's daily pollutant thresholds, no further action shall be required.

For proposed developments that are estimated to result in exceedances of thresholds, prior to start of construction 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 reduce each pollutant that is above the threshold to below the threshold. Emission reduction projects and fees will be determined in consultation with the applicant and the third-party (e.g., Bay Area Clean Air Foundation) or governmental entity and include administrative costs for the offset provider (e.g., five percent of the fee amount). The agreement that specifies fees and the 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 construction activity which is estimated to result in an exceedance for the year. The payment for the emissions can either be on an annual basis or made once upfront prior to construction.

To qualify under this mitigation measure, the specific emissions reduction project(s) must result in emission reductions in the SFBAAB that are real, surplus, quantifiable, enforceable, and would not otherwise be achieved through compliance with existing regulatory requirements or any other legal requirement.

During construction, construction contractors shall provide annual construction activity monitoring data to estimate actual construction emissions. Applicants shall submit the annual construction activity monitoring data and an estimate of actual annual criteria pollutant emissions to the City and BAAQMD for review by February 1 of each year for the prior construction year. The annual report shall reconcile paid fees for the prior year relative to actual emissions. If more emissions were generated than fees paid, the applicant shall submit payment to the third-party or governmental entity for the deficient amount. If more fees were paid than emissions generated, the third-party or governmental entity shall either issue the applicant a refund for the surplus or issue a credit that can be applied to future fee payments.

**Impact AQ-2b: Operation of the Specific Plan, including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard during operation. (*Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable*)**

### **Project**

Operation of the project 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 on-site natural gas combustion for space and water heating. Mobile sources would include vehicle trips generated by land uses proposed within

the Specific Plan area. Stationary sources would include the testing of emergency generators. Each of these sources was taken into account in calculating the project's long-term operational emissions. The project daily VMT in the TAZ was estimated and then modified to account for 1) the VMT reduction associated with the Southline Avenue expansion (see Section 4.15, *Transportation and Circulation*) and 2) the VMT reduction associated with the City's TDM Ordinance, under which the project would be required to achieve an alternative mode share of 45 percent. Consistent with the capabilities of CalEEMod, the analysis does not quantify the emissions benefit to area, energy, and mobile sources from the Specific Plan's sustainability design features (i.e., exterior electrical power infrastructure to support electric landscaping equipment, electric vehicle chargers in parking spaces, buildings with a LEED Silver rating, high-efficiency natural gas appliances, 10 percent better energy performance compared to an ASHRAE 90.1-2010 reference baseline building).

It is noted that stationary source emissions for the project cannot be fully quantified at this time because the number and types of emergency generators under future Precise Plans, other than Phase 1, are not known. Emissions associated with the five generators proposed under Phase 1 are included in the project-level stationary source emissions estimates in **Table 4.2-8, p. 4.2-46**, because Phase 1 is a component of the project. The total stationary source emissions under full buildout of the project would be expected to be higher than what is shown in **Table 4.2-8, p. 4.2-46**. The generator emissions estimate for Phase 1 conservatively assumes the full load testing scenario described in **Table 4.2-5, p. 4.2-31**.

**Table 4.2-8, p. 4.2-46**, summarizes daily area-, energy-, mobile-, and stationary-source emissions generated under existing conditions (2018) and 2030 conditions with and without the project under the Office Scenario, which, as described above, would be a worst-case analysis. To evaluate the magnitude of the change in the air quality environment due to implementation of the project, emissions under project buildout in 2030 are compared to 2030 emissions without the project.

As shown in **Table 4.2-8, p. 4.2-46**, buildout of the project would result in a net increase in criteria pollutants that could contribute to ozone formation and other air pollution in the SFBAAB, which, at certain concentrations, could 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.

**Table 4.2-8. Estimated Average Daily Unmitigated Operational Emissions from the Project (pounds/day)**

Condition/Source	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Existing (2018)</b>					
Area Sources	7	< 1	< 1	< 1	< 1
Energy Sources	< 1	< 1	< 1	< 1	< 1
Mobile Sources	157	240	1,226	269	75
Stationary Sources <sup>a</sup>	—	—	—	—	—
<i>Total Existing<sup>b</sup></i>	164	240	1,227	269	75
<b>2030 Without Project</b>					
Area Sources	7	< 1	< 1	< 1	< 1
Energy Sources	< 1	< 1	< 1	< 1	< 1
Mobile Sources	75	90	677	266	72
Stationary Sources <sup>a</sup>	—	—	—	—	—
<i>Total 2030 Without Project<sup>b</sup></i>	82	90	677	266	72
<b>2030 With Project</b>					
Area Sources	69	< 1	1	< 1	< 1
Energy Sources	2	15	13	1	1
Mobile Sources	176	228	1,549	580	157
Stationary Sources <sup>c, d</sup>	67	309	50	3	3
<i>Total 2030 With Project<sup>b</sup></i>	314	552	1613	584	161
<b>Net Increase with Project</b>					
<i>2030 With Project v. 2030 Without Project<sup>b</sup></i>	232	462	936	318	89
<i>Thresholds</i>	54	54	—	82	54

Source: See **Appendix 4.2-1** for operations modeling outputs.

Notes:

- a. No stationary sources were identified as part of existing conditions.
- b. Values may not add up because of rounding.
- c. Does not include emissions from generators under future Precise Plans (other than Phase 1), which are unknown at this time. Conservatively assumes the full load testing scenario for Phase 1 shown in **Table 4.2-5, p. 4.2-31**.
- d. Conservatively assumes the full load testing scenario for Phase 1 shown in **Table 4.2-5, p. 4.2-31**.

The Specific Plan includes numerous sustainability design features and objectives to reduce operational emissions, including exterior electrical power infrastructure to support electric landscaping equipment, active and shared transportation infrastructure and services, electric vehicle chargers in parking spaces, a TDM Plan to achieve an alternative mode share of 45 percent, infill and transit-oriented development, LEED Silver rating for buildings, high-efficiency natural gas appliances, and 10 percent better energy performance compared to an ASHRAE 90.1-2010 reference baseline building. The emissions benefit of the TDM Plan was quantified for mobile sources in **Table 4.2-8, p. 4.2-46**, while all other sustainability design features and objectives would result in emissions reductions that could not be quantified. Nonetheless, it is reasonably foreseeable that projects developed under the Specific Plan may still generate emissions in excess of BAAQMD's project-level thresholds, based on the initial emissions estimates presented in **Table 4.2-8, p. 4.2-46**. Accordingly, operational criteria pollutant emissions associated with development under the Specific Plan are conservatively identified as significant.

**Mitigation Measure AQ-7** is required to offset operational criteria pollutant emissions resulting from development under the Specific Plan. Through implementation of **Mitigation Measure AQ-7**, applicants of future Precise Plans proposing development that exceeds BAAQMD screening criteria would determine the estimated total emissions for operational activities and pay mitigation fees for any operational emissions that would exceed BAAQMD's daily pollutant thresholds. Offsetting emissions to a level below BAAQMD's threshold levels would ensure that 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 precedent regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and that emissions can be reduced to levels below threshold levels, resulting in a less-than-significant impact. 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 under the Specific Plan, for the purposes of this EIR analysis, operational air quality impacts are conservatively assumed to be **significant and unavoidable**.

While not related to the significance determination of this impact, note that NO<sub>x</sub> and CO emissions from stationary sources would be more than 10 pounds per day of testing and would therefore be subject to the BACT requirements of BAAQMD under their New Source Review regulation. Annual NO<sub>x</sub> emissions would be approximately two tons per year,<sup>67</sup> less than the BAAQMD minimum threshold of 10 tons per year that, if reached, would subject the project to the NO<sub>x</sub> offset requirements of BAAQMD under the New Source Review regulation.

#### **Health Impacts of Regional Criteria Pollutants (Operation)**

See discussion in Impact AQ-2a above. All feasible mitigation is being applied to reduce operation-period ozone precursors and PM to the extent feasible.

#### **Phase 1**

The types of operational criteria pollutants emissions for Phase 1 would be similar to those described above for the project. Operational criteria pollutant emissions were evaluated under existing year (2018) and Phase 1 buildout-year (2024) conditions. The estimate of Phase 1 daily VMT in the TAZ accounts for 1) the VMT reduction associated with the Southline Avenue expansion, which would be completed during Phase 1 (see Section 4.15, *Transportation and Circulation*), and 2) the VMT reduction associated with the City's TDM Ordinance, under which Phase 1 would be required to achieve an alternative mode share of 45 percent. Consistent with the capabilities of CalEEMod, the analysis does not quantify the emissions benefit to area, energy, and mobile sources from the other sustainability features applicable to Phase 1, such as exterior electrical power infrastructure to support electric landscaping equipment, electric vehicle chargers in parking spaces, buildings with a LEED Silver rating, high-efficiency natural gas appliances, and 10 percent better energy performance compared to an ASHRAE 90.1-2010 reference baseline building.

**Table 4.2-9, p. 4.2-48**, summarizes daily area-, energy-, mobile-, and stationary-source emissions generated under existing conditions (2018) and 2024 conditions with and without Phase 1. Stationary source emissions include emissions from the testing of Phase 1's five generators and are conservatively based on the full load testing scenario of 20 hours per day (which would occur once

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<sup>67</sup> 309 pounds of NO<sub>x</sub> per 4-hour testing day per generator multiplied by 50 hours of testing per year allowed by BAAQMD divided by 4 hours and converted from pounds to tons.

every 36 months, as shown in **Table 4.2-5, p. 4.2-31**). To evaluate the magnitude of the change in the air quality environment due to implementation of Phase 1, emissions in 2024 under Phase 1 buildout in are compared to emissions in 2024 without Phase 1. As shown in **Table 4.2-9, p. 4.2-48**, operation of Phase 1 under the full load (20-hour per day) generator testing scenario would result in a net increase of ROG and NO<sub>x</sub> emissions that would exceed BAAQMD's project-level thresholds.

**Table 4.2-10, p. 4.2-49**, compares daily operational emissions from Phase 1 under the different generator testing scenarios presented in **Table 4.2-5, p. 4.2-31**, to assist in understanding the role of generator testing in Phase 1's operational emissions profile. **Table 4.2-10, p. 4.2-49**, also shows Phase 1 emissions without stationary source emissions; this scenario accounts for the majority of operations days when no generator testing would occur (29 days out of a 30-day month and 1,058 days out of a 1,095-day three-year period).

**Table 4.2-9. Estimated Average Daily Unmitigated Operational Emissions from Phase 1 (pounds/day)**

Condition/Source	ROG	NO <sub>x</sub>	CO	PM10	PM2.5
<b>Existing (2018)</b>					
Area Sources	7	< 1	< 1	< 1	< 1
Energy Sources	< 1	< 1	< 1	< 1	< 1
Mobile Sources	157	240	1,226	269	75
Stationary Sources <sup>a</sup>	—	—	—	—	—
<i>Total Existing<sup>b</sup></i>	164	240	1,227	269	75
<b>2024 Without Phase 1</b>					
Area Sources	7	< 1	< 1	< 1	< 1
Energy Sources	< 1	< 1	< 1	< 1	< 1
Mobile Sources <sup>c</sup>	96	114	821	267	72
Stationary Sources <sup>a</sup>	—	—	—	—	—
<i>Total 2024 without Phase 1<sup>b</sup></i>	103	114	821	267	72
<b>2024 With Phase 1</b>					
Area Sources	18	< 1	< 1	< 1	< 1
Energy Sources	< 1	4	4	< 1	< 1
Mobile Sources	131	161	1,098	345	93
Stationary Sources <sup>d</sup>	67	309	50	3	3
<i>Total 2024 with Phase 1<sup>b</sup></i>	216	475	1,153	348	97
<b>Net Increase with Phase 1</b>					
<i>2024 With Phase 1 v. 2024 Without Phase 1<sup>b</sup></i>	<b><u>113</u></b>	<b><u>360</u></b>	332	82	25
<i>Threshold</i>	54	54	—	82	54
<i>Exceeds Threshold?</i>	<b><u>Yes</u></b>	<b><u>Yes</u></b>		No	No

Source: See **Appendix 4.2-1** for operation modeling outputs.

Notes:

- No stationary sources were identified as part of existing conditions.
- Values may not add up because of rounding.
- Mobile source emissions in 2024 are lower than those in 2018 due to forecasted improvements in vehicle engine technologies and emission standards.
- Conservatively assumes the full load testing scenario for Phase 1 shown in **Table 4.2-5, p. 4.2-31**.

**Table 4.2-10. Unmitigated Operational Average Daily Emissions from Phase 1 – Comparison of Generator Testing Scenarios (pounds/day)**

Condition/Source	ROG	NO <sub>x</sub>	CO	PM10	PM2.5
<b>2024 Without Phase 1</b>					
<i>Total 2024 Without Phase 1<sup>a</sup></i>	103	114	821	267	72
<b>2024 With Phase 1 – Full Load Testing Scenario (20 hours/day)<sup>b</sup></b>					
Non-Stationary Sources	149	166	1,103	345	94
Stationary Sources	67	309	50	3	3
<i>Total 2024 With Phase 1 (20-hour)<sup>a</sup></i>	216	475	1,153	348	97
<i>2024 With Phase 1 v. 2024 Without Phase 1 (20-hour)<sup>a</sup></i>	<b>113</b>	<b>360</b>	332	82	25
<i>Threshold</i>	54	54	—	82	54
<i>Exceeds Threshold?</i>	<b>Yes</b>	<b>Yes</b>		No	No
<b>2024 With Phase 1 – Normal Testing Scenario (2.5 hours/day)<sup>c</sup></b>					
Non-Stationary Sources	149	166	1,103	345	94
Stationary Sources	8	39	6	< 1	< 1
<i>Total 2024 With Phase 1 (2.5-hour)<sup>a</sup></i>	157	205	1,109	345	94
<i>2024 With Phase 1 v. 2024 Without Phase 1 (2.5-hour)<sup>a</sup></i>	54	<b>90</b>	288	79	22
<i>Threshold</i>	54	54	—	82	54
<i>Exceeds Threshold?</i>	No	<b>Yes</b>		No	No
<b>2024 With Phase 1 – No Generator Testing</b>					
Non-Stationary Sources	149	166	1,103	345	94
Stationary Sources	—	—	—	—	—
<i>Total 2024 With Phase 1 (0-hour)<sup>a</sup></i>	149	166	1,103	345	94
<i>2024 With Phase 1 v. 2024 Without Phase 1 (0-hour)<sup>a</sup></i>	46	51	282	79	22
<i>Threshold</i>	54	54	—	82	54
<i>Exceeds Threshold?</i>	No	No		No	No

Source: See **Appendix 4.2-1** for operations modeling outputs.

Notes:

<sup>a</sup> Values may not add up because of rounding.

<sup>b</sup> As shown in **Table 4.2-5, p. 4.2-31**, the full load testing scenario would occur once every three years.

<sup>c</sup> As shown in **Table 4.2-5, p. 4.2-31**, the normal testing scenario would occur once a month.

As shown in **Table 4.2-10, p. 4.2-49**, operation of Phase 1 under the full load (20-hour per day) generator testing scenario would result in a net increase of ROG and NO<sub>x</sub> emissions that would exceed BAAQMD's project-level thresholds. Under the normal (2.5-hour per day) generator testing scenario, operation of Phase 1 would result in a net increase of NO<sub>x</sub> emissions that would exceed BAAQMD's project-level thresholds. For days when no generator testing would occur, BAAQMD's thresholds would not be exceeded. Nonetheless, on the infrequent days when generator testing would occur, operation of Phase 1 would exceed BAAQMD's project-level thresholds, and operational criteria pollutant emissions would be significant.

**Mitigation Measure AQ-8** is required to limit generator testing to one generator per day. This mitigation measure would apply during any testing scenario (normal or full load). **Table 4.2-11, p. 4.2-50**, presents the maximum daily Phase 1 emissions with the mitigated stationary source emissions under the different generator testing scenarios. Based on the new testing schedule required by

**Mitigation Measure AQ-8**, the number of operations days when no generator testing would occur would accordingly be less than when unmitigated (25 days out of a 30-day month [rather than 29] and 910 days out of a 1095-day three-year period [rather than 1,058]).

**Table 4.2-11. Mitigated Operational Average Daily Emissions from Phase 1 – Comparison of Generator Testing Scenarios (pounds/day)**

Condition/Source	ROG	NO <sub>x</sub>	CO	PM10	PM2.5
<b>2024 Without Phase 1</b>					
<i>Total 2024 Without Phase 1<sup>a</sup></i>	103	114	821	267	72
<b>2024 With Phase 1 – Full Load Testing Scenario (4 hours/day)</b>					
Non-Stationary Sources	149	166	1,103	345	94
Stationary Sources	15	70	12	1	1
<i>Total 2024 With Phase 1 (4-hour)<sup>a</sup></i>	165	236	1,114	346	95
<i>2024 With Phase 1 v. 2024 Without Phase 1 (4-hour)<sup>a</sup></i>	<b>61</b>	<b>122</b>	294	79	22
<i>Threshold</i>	54	54	—	82	54
<i>Exceeds Threshold?</i>	<b>Yes</b>	<b>Yes</b>		No	No
<b>2024 With Phase 1 – Normal Testing Scenario (0.5 hours/day)</b>					
Non-Stationary Sources	149	166	1,103	345	94
Stationary Sources	2	9	1	< 1	< 1
<i>Total 2024 With Phase 1 (0.5-hour)<sup>a</sup></i>	151	175	1,104	345	94
<i>2024 With Phase 1 v. 2024 Without Phase 1 (0.5-hour)<sup>a</sup></i>	48	<b>60</b>	283	79	22
<i>Threshold</i>	54	54	—	82	54
<i>Exceeds Threshold?</i>	No	<b>Yes</b>		No	No
<b>2024 With Phase 1 – No Generator Testing</b>					
Non-Stationary Sources	149	166	1,103	345	94
Stationary Sources	—	—	—	—	—
<i>Total 2024 With Phase 1 (0-hour)<sup>a</sup></i>	149	166	1,103	345	94
<i>2024 With Phase 1 v. 2024 Without Phase 1 (0-hour)<sup>a</sup></i>	46	51	282	79	22
<i>Threshold</i>	54	54	—	82	54
<i>Exceeds Threshold?</i>	No	No		No	No

Source: See **Appendix 4.2-1** for operations modeling outputs.

Notes:

<sup>a</sup> Values may not add up because of rounding.

<sup>b</sup> As shown in **Table 4.2-5, p. 4.2-31**, the full load testing scenario would occur once every three years.

<sup>c</sup> As shown in **Table 4.2-5, p. 4.2-31**, the normal testing scenario would occur once a month.

As shown in **Table 4.2-11, p. 4.2-50**, with **Mitigation Measure AQ-8**, operation of Phase 1 under both the normal and full load generator testing scenarios would still result in a net increase of NO<sub>x</sub> emissions that would exceed BAAQMD's project-level thresholds. Testing under the full load generator testing scenario would also exceed ROG daily thresholds. The exceedances under the full load generator testing scenario (which requires testing every three years) would occur for 5 days of each testing year. The exceedance under the normal generator testing scenario (which requires testing every month) would occur during 60 days of every year.

**Mitigation Measure AQ-7** is required for Phase 1 to offset the net operational criteria pollutant emissions exceeding BAAQMD's project-level thresholds during days with Phase 1 generator testing. Through implementation of **Mitigation Measure AQ-7**, the Phase 1 applicant would pay mitigation fees to offset the ROG and/or NO<sub>x</sub> pollutant emissions, thereby ensuring that BAAQMD's daily pollutant thresholds would not be exceeded. Offsetting emissions to a level below BAAQMD's threshold levels would ensure that future emissions from Phase 1 would not contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Based on recent precedent regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future, and that Phase 1 emissions can be reduced to levels below threshold levels. However, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed to mitigate Phase 1's annual emissions, for the purposes of this EIR analysis, operational air quality impacts of Phase 1 are conservatively assumed to be **significant and unavoidable**.

While not related to the significance determination of this impact, note that NO<sub>x</sub> and CO emissions from stationary sources would be more than 10 pounds per day of testing and would therefore be subject to the BACT requirements of BAAQMD under their New Source Review regulation. Annual NO<sub>x</sub> emissions would be approximately two tons per year,<sup>68</sup> less than the BAAQMD minimum threshold of 10 tons per year that, if reached, would subject the project to the NO<sub>x</sub> offset requirements of BAAQMD under the New Source Review regulation.

#### ***Health Impacts of Regional Criteria Pollutants***

Please see discussion of health impacts for the Project operational emissions above.

#### **Mitigation Measure AQ-7: Purchase of Mitigation Credits for Operational Emissions Exceeding BAAQMD's Daily Pollutant Thresholds (All Phases)**

***For future Precise Plans not including Phase 1:*** Applicants proposing development of future Precise Plans other than Phase 1 shall compare their project size with the BAAQMD screening sizes appropriate to their project for operational criteria pollutants, as found in Table 3-1 of BAAQMD's current CEQA Guidelines (2017). The screening limit for general office buildings, an office park, or a government office building is 346,000 square feet, 323,000 square feet, and 61,000 square feet, respectively. The screening limits for general light industrial buildings, including Research and Development uses, are any of the following: 541,000 square feet, 72 acres, or 1,249 employees. If the project is less than the screening limit for the project type, then no further action shall be required.

Projects not excluded by the conditions 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 operation to the BAAQMD thresholds used in the EIR for criteria pollutants (see **Table 4.2-4**). The emissions estimate shall be provided as part of the project's Precise Plan application to the City for the project. The City will review the estimate and confirm whether offsets are required for operation. If so, the procedure described below shall be followed. Should the City-confirmed estimate indicate that the proposed development

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<sup>68</sup> 309 pounds of NO<sub>x</sub> per 4-hour testing day multiplied by 50 hours of testing per year allowed by BAAQMD divided by 4 hours and converted from pounds to tons.

estimate would not result in operational emissions exceeding BAAQMD's daily pollutant thresholds, no further action shall be required.

***For Phase 1 and future Precise Plans that are shown to exceed BAAQMD's annual operations emissions thresholds:*** For proposed developments that are estimated to result in exceedances of thresholds during any year of the project's life, including Phase 1, the project applicant shall coordinate with a third-party (e.g., Bay Area Clean Air Foundation) or governmental entity to pay 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 fees will be determined in consultation with the applicant and the third-party or governmental entity and include administrative costs for the offset provider (e.g., five percent of the fee amount). The agreement that specifies fees and the 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 operational activity which is estimated to result in an exceedance for the year. The payment for the emissions can either be on an annual basis or made once up front prior to operation.

To qualify under this mitigation measure, the specific emissions reduction project(s) must result in emission reductions in the SFBAAB that are real, surplus, quantifiable, enforceable, and would not otherwise be achieved through compliance with existing regulatory requirements or any other legal requirement. During operation, building managers will provide annual operation activity monitoring data to estimate actual operation emissions. Applicants will submit the annual operation activity monitoring data and an estimate of actual annual criteria pollutant emissions to the City and BAAQMD for review by February 1 of each year for the prior operation year. The annual report will reconcile paid fees for the prior year relative to actual emissions. If more emissions were generated than fees paid, the applicant will submit payment to the third-party or governmental entity for the deficient amount. If more fees were paid than emissions generated, the third-party or governmental entity will either issue the applicant a refund for the surplus or a credit that can be applied to future fee payments.

Example offset projects include electrification of stationary internal combustion engines; replacing old trucks with new, cleaner, more efficient trucks; and other stationary and mobile source emissions-reducing projects.

**Mitigation Measure AQ-8: Limit the Number of Phase 1 Emergency Generators Tested to One Generator Per Day (Phase 1 Only)**

No more than one Phase 1 emergency generator shall be tested in any 24-hour period. This requirement shall apply to routine testing events anticipated to occur every month and full load testing events anticipated to occur every 36 months (3 years).

**Impact AQ-3: Future phases of the project, not including Phase 1, could expose sensitive receptors to substantial pollutant concentrations. (Project: Significant and Unavoidable; Phase 1: Less than Significant with Mitigation)**

**Project**

The primary pollutants of concern to human health generated by the proposed project are criteria pollutants and TACs. These pollutants and their potential impacts on receptors are analyzed below.

**Localized Criteria Pollutants**

Localized criteria pollutants generated by the proposed project (e.g., fugitive dust, PM, CO) could be deposited near the emissions source and affect the population near that emissions source. Although these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. As discussed above, the NAAQS and CAAQS are health protective standards that have been set at levels that are considered safe with respect to protecting public health, including the health of sensitive populations, such as asthmatics, children, and the elderly.

**Construction**

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 Guidelines considers dust impacts to be less than significant if BAAQMD's construction BMPs are employed to reduce such emissions. Because BAAQMD's Basic Construction Mitigation Measures would be implemented, per **Mitigation Measure AQ-1**, construction-related fugitive dust emissions would be **less than significant with mitigation** and would not expose receptors to substantial pollutant concentrations or risks.

**Operation**

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.

As discussed above, BAAQMD developed screening criteria to assist lead agencies in evaluating potential impacts from localized CO. The proposed project, at buildout, would not increase traffic volumes at any intersection to more than 44,000 vehicles per hour or 24,000 vehicles per hour in areas where vertical or horizontal mixing is limited, as specified by BAAQMD. However, the intersection of San Bruno Avenue/El Camino Real currently does not meet the applicable congestion management plan standard.<sup>69</sup> As such, the proposed project would not meet BAAQMD's CO hot-spot screening criteria. Because BAAQMD's screening criteria cannot be used, a site-specific analysis has been conducted to determine if the proposed project could contribute to a localized CO hot spot and expose receptors to substantial CO concentrations or risks. CO impacts were analyzed at the intersection of San Bruno Avenue/El Camino Real using the traffic conditions from existing

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<sup>69</sup> Fehr & Peers. 2021. *Southline Transportation Impact Analysis*. June.

conditions (2018) and from project buildout (2030). **Table 4.2-12, p. 4.2-54**, presents project CO concentrations summed with background CO levels and compared against the CAAQS and NAAQS.

As shown in **Table 4.2-12, p. 4.2-54**, CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient state or federal air quality standards.

Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO.

Therefore, this impact would be *less than significant* for the project.

**Table 4.2-12. CO Concentrations at San Bruno Avenue/El Camino Real Intersection at Project Buildout (parts per million)**

Source	Receptor <sup>a</sup>	1 Hour		8 Hours	
		Existing (2018)	Project (2030)	Existing (2018)	Project (2030)
San Bruno Avenue/El Camino Real	1	3.1	3.2	2.2	2.2
	2	3.4	3.3	2.4	2.3
	3	3.3	3.3	2.3	2.3
	4	3.1	3.2	2.2	2.2
CAAQS		20	20	9.0	9.0
Exceed CAAQS?		No	No	No	No
NAAQS		35	35	9	9
Exceed NAAQS?		No	No	No	No

Source: See **Appendix 4.2-1** for CO modeling outputs.

Notes:

CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards

<sup>a</sup>. Receptors are located at each of the four corners of the intersection. The intersection modeled has two intersecting roadways.

### **Toxic Air Contaminants**

The primary TACs of concern associated with the proposed project are asbestos, DPM, and evaporative ROG. Note that evaporative ROG is a potential TAC of concern only for the Life Sciences Scenario, which could involve R&D buildings with wet laboratories and process boilers. These could emit ROG from solvents and chemicals specific to the type of research and development being conducted, as discussed further below.

#### **Construction**

Structure demolition could disperse particulates that contain asbestos-containing material (ACM) adjacent to the locations of sensitive receptors. ACMs were commonly used as fireproofing and insulating agents prior to the 1970s. The U.S. Consumer Product Safety Commission banned the use of most ACMs in 1977 because of their link to mesothelioma. However, buildings constructed prior to 1977 that would be demolished by development supported by the proposed Specific Plan may have used ACM and therefore 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 11, 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 it in leak-tight containers for haul truck transport to disposal sites. The project will be required by conditions of approval to comply with all applicable BAAQMD regulations. Consequently, regulatory mechanisms exist that would ensure that impacts from ACM, if present during demolition activities within the Specific Plan area, would be *less than significant*.

DPM is a carcinogen emitted by diesel internal combustion engines. Construction activities would generate DPM (PM<sub>2.5</sub> exhaust from diesel-powered vehicles)<sup>70</sup> and PM<sub>2.5</sub> that could expose adjacent receptors to significant health risks. Without specific details regarding the locations or construction schedules, a quantitative evaluation of potential health risk impacts is not possible. There are sensitive receptors within 1,000 feet of the project site, including approximately 100 residential uses in the city of San Bruno and 1 recreational trail in the City (conservatively assumed to be a sensitive receptor), within 1,000 feet of the project site. The closest sensitive receptors are the residential uses on the south side of Tanforan Avenue adjacent to the Tanforan Avenue improvements proposed as part of Phase 1. **Figure 4.2 1, p. 4.2-10**, shows sensitive receptors within 1,000 feet of the Specific Plan area.

Depending on the construction schedule and proximity to receptors, there may also be instances where DPM emissions could result in cancer or non-cancer health risks that would exceed BAAQMD thresholds, resulting in a potentially significant impact. The potentially significant impact from the exposure of receptors to DPM during project construction activities would be reduced by **Mitigation Measures AQ-1 through AQ-4 and AQ-6**, which would reduce fugitive dust through construction BMPs, reduce DPM through Tier 4 engines and model year 2010 engines in clean diesel trucks, and offset any remaining emissions to below BAAQMD thresholds through the purchase of mitigation credits. However, emissions generated by construction activities could still expose receptors to cancer and non-cancer risks in excess of BAAQMD significance thresholds during construction. **Mitigation Measure AQ-9** would require a project-level evaluation of health risks from future projects.

At this time, definitive conclusions regarding project-level evaluations of health risks cannot be made. Construction-generated DPM would be evaluated for specific projects, per **Mitigation Measure AQ-9**, and mitigated to the extent feasible, but this mitigation measure does not ensure that the evaluations would find less-than-significant impacts. Therefore, it is possible that mitigation to address future project health risks and pollutant concentrations may be inadequate with respect to reducing impacts to levels below BAAQMD thresholds. This impact would be *significant and unavoidable*.

#### *Operation*

It is conservatively assumed that in the Life Sciences Scenario, R&D buildings could involve research activity in wet laboratories and/or require process boilers. The wet laboratories would result in various ROG emissions from solvents and chemicals specific to the type of research being conducted (e.g., chemistry, chemical engineering, biological sciences, physical sciences). The exact number and size of future laboratories that may be constructed under the Life Sciences Scenario are not currently known. ROG emissions from laboratory activity could include carcinogenic organics with

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<sup>70</sup> Per BAAQMD guidance, PM<sub>2.5</sub> exhaust is used as a surrogate for DPM.

acute and chronic hazard risks. In the event that laboratory space is added among future R&D buildings under the Life Sciences Scenario, **Mitigation Measure AQ-9** would be required to provide a project-level evaluation of health risks related to emissions of ROG and its constituent gases from solvents and chemicals specific to the type of research being conducted. Similarly, in the event that process boilers are added among future R&D buildings under the Life Sciences Scenario and boiler details are specified (i.e., geographic location, release height, stack inside diameter, gas exit temperature, gas exit flow rate), **Mitigation Measure AQ-9** would be required to evaluate health risks related to emissions of ROG and its constituent gases from process boilers.

As discussed above, the proposed project would include the installation and operation of diesel-fueled generators, a new stationary source of TACs. All new stationary sources would be subject to the permit authority of BAAQMD, which will not issue a permit for a new 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 PM<sub>2.5</sub> concentrations. Therefore, emissions generated by new stationary resources could still expose receptors to PM<sub>2.5</sub> concentrations in excess of BAAQMD significance thresholds during operations. **Mitigation Measure AQ-9** would be required to provide a project-level evaluation of operational PM<sub>2.5</sub> concentrations from future projects.

At this time, definitive conclusions regarding project-level evaluations of health risks cannot be made. Operational emissions of TAC from future lab uses, and PM<sub>2.5</sub> from future diesel generators would be evaluated for specific projects, per **Mitigation Measure AQ-9**, but this mitigation measure does not ensure that the evaluations would find less-than-significant impacts. Therefore, it is possible that mitigation to address future project health risks and pollutant concentrations may be inadequate with respect to reducing impacts to levels below BAAQMD thresholds. This impact would be *significant and unavoidable*.

**Mitigation Measure AQ-9: Require Future Projects within 1,000 Feet of Sensitive Receptors to Perform a Health Risk Assessment (Future Phases Only)**

All applicants proposing development of projects, other than Phase 1, within 1,000 feet of existing sensitive receptors, as defined by BAAQMD (e.g., residential), shall prepare a site-specific construction and operational HRA. The HRA shall include all reasonably foreseeable sources of TAC, consistent with BAAQMD guidelines. If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures or PM<sub>2.5</sub> concentrations for adjacent receptors would be less than BAAQMD project-level thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks or PM<sub>2.5</sub> concentrations would exceed BAAQMD project-level thresholds, additional feasible on- and off-site mitigation would be analyzed by the applicant to help reduce risks to the greatest extent practicable. Mitigation may include installation of indoor air filters (MERV 13 or higher) at sensitive receptor locations and planting of vegetation and trees as pollution buffers.

**Phase 1**

The types of pollutants of concern to human health generated by construction and operation of Phase 1 would be the same as evaluated above for the project—criteria pollutants and TAC. These pollutants and their potential impacts on receptors are analyzed below.

**Localized Criteria Pollutants**

Localized criteria pollutants generated by Phase 1 (e.g., fugitive dust, PM, CO) would be similar to those generated by the project.

**Construction**

During grading and excavation activities associated with construction, localized fugitive dust would be generated. BAAQMD's CEQA Guidelines considers dust impacts to be less than significant if BAAQMD's construction BMPs are employed to reduce such emissions. Because BAAQMD's Basic Construction Mitigation Measures would be implemented, per **Mitigation Measure AQ-1**, construction-related fugitive dust emissions would be **less than significant** and would not expose receptors to substantial pollutant concentrations or risks.

**Operation**

As discussed above, BAAQMD has developed screening criteria to assist lead agencies in evaluating potential impacts from localized CO. Phase 1 would not increase traffic volumes at any intersection to more than 44,000 vehicles per hour or 24,000 vehicles per hour in areas where vertical or horizontal mixing is limited, as specified by BAAQMD. However, the intersection of San Bruno Avenue/El Camino Real currently does not meet the applicable congestion management plan standard.<sup>71</sup> As such, operation of Phase 1 would not meet BAAQMD's CO hot-spot screening criteria. Therefore, BAAQMD's screening criteria cannot be used; a site-specific analysis has been conducted to determine if Phase 1 could contribute to a localized CO hot spot and expose receptors to substantial CO concentrations or risks. CO impacts were analyzed at the intersection of San Bruno Avenue/El Camino Real using the traffic conditions from existing conditions (2018) and from the Phase 1 buildout (2024). **Table 4.2-13, p. 4.2-57**, presents Phase 1 CO concentrations summed with background CO levels and compared against the CAAQS and NAAQS.

**Table 4.2-13. CO Concentrations at San Bruno Avenue/El Camino Real Intersection at Phase 1 Operation (parts per million)**

Source	Receptor <sup>a</sup>	1 Hour		8 Hours	
		Existing (2018)	Phase 1 (2024)	Existing (2018)	Phase 1 (2024)
San Bruno Avenue/El Camino Real	1	2.5	2.6	1.8	1.8
	2	2.6	2.7	1.8	1.9
	3	2.6	2.7	1.8	1.9
	4	2.5	2.5	1.8	1.8
CAAQS		20	20	9.0	9.0
Exceed CAAQS?		No	No	No	No
NAAQS		35	35	9	9
Exceed NAAQS?		No	No	No	No

Source: See **Appendix 4.2-1** for CO modeling outputs.

Notes:

CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards

<sup>a</sup> Receptors are located at each of the four corners of the intersection. The intersection modeled has two intersecting roadways.

<sup>71</sup> Fehr & Peers. 2021. *Southline Transportation Impact Analysis*. June.

As shown in **Table 4.2-13, p. 4.2-57**, CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient state or federal air quality standards. Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO. Therefore, this impact would be *less than significant*.

#### ***Toxic Air Contaminants***

The primary TACs of concern associated with Phase 1 are asbestos and DPM.

#### ***Construction***

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 11, 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 material 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 Phase 1 site, would be *less than significant*.

Construction activities would generate DPM and PM<sub>2.5</sub> that could expose adjacent receptors to significant health risks. The receptors affected by the highest concentrations of DPM exhaust and PM<sub>2.5</sub> exhaust are adjacent to (i.e., property boundaries are less than a foot away from construction area boundaries) and south of the off-site improvement area at Tanforan Avenue. **Table 4.2-14, p. 4.2-54**, presents the unmitigated and mitigated construction-related health risk for the maximally exposed individual receptor within 1,000 feet of Phase 1 construction activities. In an unmitigated scenario, Phase 1 would result in a significant increase in cancer risk (90 per million) and annual PM<sub>2.5</sub> concentrations (0.4 µg/m<sup>3</sup>) for the maximally exposed individual receptor. As a result of these exceedances of the cancer risk and PM<sub>2.5</sub> thresholds, mitigation measures would be required to reduce impacts. Implementation of **Mitigation Measure AQ-1** and **AQ-2** would require BAAQMD's BMPs and Tier 4 engines in construction equipment to reduce fugitive dust and DPM emissions and correspondingly reduce cancer risks and annual PM<sub>2.5</sub> concentrations. With these mitigation measures, this impact would be *less than significant with mitigation*.

**Table 4.2-14. Phase 1 Cancer and Chronic Hazard Risks and PM<sub>2.5</sub> Concentrations during Construction<sup>a</sup>**

Receptor	Unmitigated			Mitigated <sup>b</sup>		
	Cancer Risk <sup>a</sup> (cases per million)	Non-Cancer Hazard Index	Annual PM <sub>2.5</sub> Concentration (µg/m <sup>3</sup> )	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM <sub>2.5</sub> Concentration (µg/m <sup>3</sup> )
Maximally Exposed Individual Receptor <sup>c</sup>	<u>89.6</u>	0.1	<u>0.4</u>	4.5	< 0.1	0.2
Significance Threshold	10.0	1.0	0.3	10.0	1.0	0.3
Exceed Threshold?	<u>Yes</u>	No	<u>Yes</u>	No	No	No

Source: See **Appendix 4.2-1** for modeling outputs and calculations.

Note: µg/m<sup>3</sup> = micrograms per cubic meter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter  
Exceedances of BAAQMD thresholds are underlined.

<sup>a</sup> The Phase 1 mitigated results account for BAAQMD thresholds regarding fugitive dust (**Mitigation Measure AQ-1**) and 95 percent of offroad equipment with Tier 4 engines (**Mitigation Measure AQ-2**) (see Impact AQ-2a).

<sup>b</sup> This receptor is adjacent to the southern boundary of the off-site improvement area (Tanforan Avenue) associated with Phase 1 construction.

### Operation

As discussed above, Phase 1 would include the installation and operation of five diesel-fueled generators, a new stationary source of TACs. All new stationary sources would be subject to the permit authority of BAAQMD, which will not issue a permit for a new 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.

Because BAAQMD's permit does not specifically address PM<sub>2.5</sub>, concentrations from operation of the emergency generators were modeled, and **Table 4.2-15, p. 4.2-59**, presents the results of the modeling. Generators were assumed to operate for 50 hours per year, consistent with CARB's Airborne Toxic Control Measure for Stationary Compression Ignition Engines and Section 330.3 of BAAQMD Regulation 9, Rule 8. Cancer and non-cancer health risks are presented for informational purposes. The receptors affected by the highest concentrations of DPM exhaust are adjacent to and south of the off-site improvement area at Tanforan Avenue. As shown in **Table 4.2-15, p. 4.2-59**, Phase 1 operations would not result in a significant increase in PM<sub>2.5</sub> exhaust concentrations. Therefore, this impact would be *less than significant*. No mitigation is required.

**Table 4.2-15. Phase 1 Cancer and Chronic Hazard Risks and PM<sub>2.5</sub> Concentrations during Operation**

Receptor	Unmitigated		
	Cancer Risk <sup>a</sup> (cases per million)	Non-Cancer Hazard Index	Annual PM <sub>2.5</sub> Concentration (µg/m <sup>3</sup> )
Maximally Exposed Individual Receptor <sup>a</sup>	2.7	< 0.1	< 0.1
Significance Threshold	10.0	1.0	0.3
Exceed Threshold?	No	No	No

Source: See **Appendix 4.2-1** for modeling outputs and calculations.

Note: µg/m<sup>3</sup> = micrograms per cubic meter; PM<sub>2.5</sub> = particulate matter no more than 2.5 microns in diameter

Receptor	Unmitigated		
	Cancer Risk <sup>a</sup> (cases per million)	Non-Cancer Hazard Index	Annual PM2.5 Concentration (µg/m <sup>3</sup> )
<sup>a</sup> This receptor is adjacent to the southern boundary of the off-site improvement area (Tanforan Avenue) associated with Phase 1 construction.			

The cancer risk threshold defined by BAAQMD is for exposure of a maximally exposed 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. The approach for estimating cancer risk is based on long-term inhalation, assuming a 24-hour per day, 350-day per year, 30-year exposure for residential receptors. Accordingly, to determine the Phase 1 combined cancer risk, the risk from the 3-year-long mitigated construction period (approximately three cases per million, per **Table 4.2-14, p. 4.2-59**) and the risk from the 30-year-long operational period (approximately three cases per million, per **Table 4.2-15, p. 4.2-59**) are added together (approximately six cases per million). The combined cancer risk would not exceed BAAQMD's threshold of 10 cases per million. Therefore, this impact would be *less than significant with mitigation*.

**Impact AQ-4: The project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. (Project: Less than Significant; Phase 1: Less than Significant)**

#### Project and Phase 1

BAAQMD and CARB have identified the types of land uses below 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 plants
- Coffee roasters
- Asphalt plants
- Metal smelters
- Landfills
- Recycling facilities
- Waste transfer stations
- Petroleum refineries
- Biomass operations
- Auto body shops
- Coating operations
- Fiberglass manufacturers
- Foundries
- Rendering plants
- Livestock operations

The project would be constructed and operated within 1,000 feet of existing sensitive receptors (see **Figure 4.2-1, p. 4.2-10**). The proposed project would establish a new zoning district in the proposed Specific Plan area, referred to as the Southline Campus District (S-C District). The list of land uses that could be permitted in the S-C District does not include any of the odor-generating land uses identified above (see Table 3-6 in Chapter 3, *Project Description*, of this EIR, for a list of permitted land uses).

Potential odor emitters during construction activities include diesel exhaust, asphalt paving, and the use of architectural coatings and solvents. Construction-related activities would be temporary and would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7. Odors during operation could emanate from the emergency diesel generators and the reapplication of architectural coatings. These odors would be limited to the immediate vicinity of the project site and occur infrequently. Although such brief exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. Given mandatory compliance with BAAQMD rules, no proposed construction or operational activities would create a significant level of objectionable odors. Therefore, odor impacts for the proposed project, inclusive of Phase 1, would be ***less than significant***. No mitigation is required.

#### 4.2.4.4 Cumulative Impacts

The cumulative geographic context for air quality is the SFBAAB. The cumulative geographic context for health risks and odors is the immediate vicinity of the project site (i.e., within 1,000 feet).

**Impact C-AQ-1: The project, inclusive of Phase 1, together with the cumulative projects identified, would not conflict with or obstruct implementation of the applicable air quality plan. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

As discussed under Impact AQ-1, the proposed project, inclusive of Phase 1, would support the goals of BAAQMD's Clean Air Plan, would include all applicable control measures, and would not conflict with Clean Air Plan implementation. The purpose of the Clean Air Plan is to improve regional air quality in the air basin; therefore, the analysis and less-than-significant finding under Impact AQ-1 is inherently cumulative. For these reasons, the proposed project, inclusive of Phase 1, in combination with past, present, and reasonably foreseeable future projects would not contribute to or result in a significant cumulative impact related to air quality plan consistency. The cumulative impact would be ***less than significant***. No mitigation is required.

**Impact C-AQ-2: Construction and operation under the Specific Plan, inclusive of Phase 1, together with the cumulative projects identified, could result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a non-attainment area under an applicable federal or state ambient air quality standard. (Project: *Significant and Unavoidable*; Phase 1: *Significant and Unavoidable*)**

As discussed above, BAAQMD has identified project-level thresholds to evaluate criteria pollutant impacts (**Table 4.2-4, p. 4.2-21**). 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 on the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary.

## Project

Per BAAQMD guidelines, exceedances of project-level thresholds would be cumulatively considerable, and the cumulative impact would be significant. As discussed above under Impacts AQ-2a and AQ-2b, construction and operational emissions resulting from individual projects developed under the Specific Plan could exceed BAAQMD's regional ROG, NO<sub>x</sub>, and PM thresholds. **Mitigation Measures AQ-1 through AQ-7** would reduce regional emissions of ROG, NO<sub>x</sub>, and PM to a level below BAAQMD's regional thresholds. Because it cannot be concluded that offset programs per **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 under the Specific Plan, for the purposes of this EIR analysis, impacts during construction and operation related to regional criteria pollutants quality impacts from the project are conservatively assumed to result in a **significant and unavoidable** cumulative impact.

## Phase 1

Per BAAQMD guidelines, exceedances of project-level thresholds would be cumulatively considerable, and the cumulative impact would be significant. As shown in **Table 4.2-7, p. 4.2-41**, construction of Phase 1 would not generate regional criteria pollutants in excess of BAAQMD thresholds with implementation of **Mitigation Measure AQ-2**. In addition, **Mitigation Measure AQ-1** would require implementation of all feasible dust control measures, thereby reducing localized fugitive dust emissions during construction. As such, construction of Phase 1 would not be expected to contribute a significant level of air pollution such that air quality within the SFBAAB would be degraded. Consequently, construction-related criteria pollutant emissions would be less than cumulatively considerable. The cumulative impact would be **less than significant with mitigation**.

As discussed above under AQ-2b, operation of Phase 1 would generate ROG and NO<sub>x</sub> emissions in excess of BAAQMD thresholds during days on which emergency generator testing would occur. As such, operation of Phase 1 would be expected to contribute a significant level of air pollution such that air quality within the SFBAAB would be degraded. **Mitigation Measure AQ-8** would reduce the daily emission from stationary sources by limiting the number of emergency generators that can be tested in any given day. **Mitigation Measure AQ-7** would reduce regional emissions of ROG, NO<sub>x</sub>, and PM from Phase 1 to a level below BAAQMD's regional thresholds, resulting in a less-than-significant 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 under the Specific Plan, for the purposes of this EIR analysis, impacts related to regional criteria pollutants are conservatively assumed to result in cumulative impact that would be **significant and unavoidable**.

**Impact C-AQ-3: Construction and operation of future Precise Plans under the Specific Plan, not including Phase 1, together with the cumulative projects identified, could expose sensitive receptors to substantial pollutant concentrations. (Project: Significant and Unavoidable; Phase 1: Less than Cumulatively Considerable)**

According to BAAQMD's guidelines, combined risk levels should be determined from all nearby 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.

## Project

### ***Localized Criteria Pollutants and Toxic Air Contaminants***

The analysis of localized criteria pollutants in Impact AQ-3 included modeling to evaluate CO hot-spot concentrations. As shown in **Table 4.2-12, p. 4.2-54**, CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient state or federal air quality standards. Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO. This impact was concluded to be less than significant. Because the project-level CO hot-spot analysis already accounts for (1) background concentrations of CO as measured at local air quality monitoring stations and (2) cumulative background traffic in the project analysis year of 2030, the significance determination is inherently cumulative. The project-level impact determination for CO hotspots therefore serves as the impact determination for Impact C-AQ-3, which would be less than significant.

Existing nearby DPM sources and the project could contribute to a cumulative health risk for sensitive receptors near the project site. As discussed above under Impact AQ-3, a quantitative evaluation of potential health risk impacts for the proposed project is not possible. **Mitigation Measures AQ-1 through AQ-7 and Mitigation Measure AQ-9** would develop and maintain best practices for reducing emissions associated with construction and operational activities and require that new development with sensitive receptors adjacent to TAC sources be designed to minimize health risks, which would reduce construction and operational health risks for existing and future receptors. However, there may be instances where project-specific conditions would preclude a reduction in the health risk to a level 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 PM<sub>2.5</sub> concentrations. However, BAAQMD permitting would ensure that cancer risks and the hazard index would be below the applicable thresholds but would not ensure that PM<sub>2.5</sub> concentrations would be below the applicable threshold. In addition, future development projects under the Specific Plan could generate DPM, PM<sub>2.5</sub>, or other TACs, such as those emitted from laboratory uses or process boilers, that could expose adjacent receptors to significant health risks (e.g., from construction and operational sources that are adjacent to sensitive receptors). Therefore, it is conservatively assumed that the proposed project in combination with other past, present, and reasonably foreseeable future projects would result in a cumulative impact that would be ***significant and unavoidable***.

## Phase 1

### ***Localized Criteria Pollutants and Toxic Air Contaminants***

The analysis of localized criteria pollutants in Impact AQ-3 included modeling to evaluate CO hot-spot concentrations. As shown in **Table 4.2-13, p. 4.2-70**, CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient state or federal air quality standards. Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO. This impact was concluded to be less than significant. Because the Phase 1-level CO hot-spot analysis already accounts for (1) background concentrations of CO as measured at local air quality monitoring stations and (2) cumulative background traffic in the Phase 1 analysis year of 2024, the significance determination is inherently cumulative. The Phase 1-level impact determination for CO hotspots therefore serves as the impact determination for Impact C-AQ-3, which would be less than significant.

Phase 1 construction activities and operation of the five new diesel-fueled generators on the project site would generate DPM and PM<sub>2.5</sub>. Existing nearby DPM and PM<sub>2.5</sub> sources within 1,000 feet of the project site, along with the Phase 1 site, could contribute to a cumulative health risk for existing and future sensitive receptors adjacent to and within the project site (see **Figure 4.2-1, p. 4.2-10**). This is a potentially significant impact. Data files and distance multipliers provided by BAAQMD were used to estimate background impacts and concentrations for existing stationary, roadway, and railway sources, as shown in **Figure 4.2-1, p. 4.2-10**. The combined risks from mitigated construction (with implementation of **Mitigation Measures AQ-1** and **AQ-2**) and operation of Phase 1 and ambient sources are summarized in **Table 4.2-16, p. 4.2-64**. The methods used to estimate Phase 1 emissions are described above in Section 4.2.4.2, *Approach to Analysis*, and provided in **Appendix 4.2-1**.

As shown in **Table 4.2-16, p. 4.2-64**, the combined PM<sub>2.5</sub> concentration from Phase 1 construction, Phase 1 operation, and ambient sources would exceed the BAAQMD cumulative threshold. This is largely a result of the existing stationary sources—specifically, the multiple emission sources at Central Concrete Supply, Inc., an asphalt concrete plant approximately 900 feet northeast of the maximally exposed individual receptor. This facility accounts for 97 percent of the cumulative PM<sub>2.5</sub> concentration. Therefore, for Phase 1, there is a significant cumulative impact for receptors in the project area. The contribution of Phase 1 is a very small proportion of the PM<sub>2.5</sub> concentration, however, and below BAAQMD's project-level threshold. Therefore, while a cumulative impact exists with respect to annual PM<sub>2.5</sub> emissions, Phase 1's contribution is considered *less than cumulatively considerable*.

**Table 4.2-16. Mitigated Cumulative Health Risks from Phase 1**

Source	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM <sub>2.5</sub> Concentration (µg/m <sup>3</sup> )
<b>Contribution from Existing Sources<sup>a</sup></b>			
Stationary Sources	< 1	< 0.1	<u>9.6</u>
Roadway Sources	6	—	0.2
Rail Sources	21	—	< 0.1
<b>Contribution from Phase 1 Construction<sup>b</sup></b>			
Maximally Exposed Individual Receptor	1	< 0.1	0.1
<b>Contribution from Phase 1 Operation</b>			
Maximally Exposed Individual Receptor	2	< 0.1	< 0.1
<b>Cumulative Totals</b>			
Existing + Phase 1 Construction	28	< 0.1	<u>9.9</u>
Existing + Phase 1 Operation	29	< 0.1	<u>9.8</u>
Existing + Phase 1 Construction and Operation	30	< 0.1	<u>9.9</u>
<i>BAAQMD Thresholds</i>	<i>100</i>	<i>10.0</i>	<i>0.8</i>

Source: See **Appendix 4.2-1** for modeling outputs and calculations.

Notes:

Exceedances of BAAQMD thresholds are underlined.

µg/m<sup>3</sup> = micrograms per cubic meter

<sup>a</sup> Contributions from existing sources represent the health risks within 1,000 feet of the maximum exposed receptor, which is a residence on the east corner on the south side of Tanforan Avenue. See **Figure 4.2-1, p. 4.2-10**, for existing stationary, roadway, and rail sources.

Source	Cancer Risk (cases per million)	Non-Cancer Hazard Index	Annual PM <sub>2.5</sub> Concentration (µg/m <sup>3</sup> )
<sup>b</sup> Contributions from Phase 1 construction reported with implementation of <b>Mitigation Measures AQ-1 and AQ-2.</b>			

**Impact C-AQ-4: The project, inclusive of Phase 1, together with the cumulative projects identified would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

As discussed under Impact AQ-4, the project, inclusive of Phase 1, would not generate substantial odors. The cumulative projects do not include land uses that are known to generate adverse odors. Construction activities would generate odors from diesel exhaust, asphalt paving, and the use of architectural coatings and solvents, but these activities would be temporary and would not result in nuisance orders that would violate BAAQMD's Regulation 7. In addition, odors during operation could emanate from the emergency diesel generators and the reapplication of architectural coatings. These odors would be limited to within the project site and occur infrequently. Given mandatory compliance with BAAQMD rules, the proposed project in combination with other past, present, and reasonably foreseeable future projects would not result in significant odor impacts. The cumulative impact would be *less than significant*.

## 4.3 Biological Resources

### 4.3.1 Introduction

This section evaluates the potential impacts related to construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the proposed project (Phase 1), on biological resources. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes the *Tree Inventory of Southline, South San Francisco, CA 94080* (Tree Inventory) prepared for the Specific Plan area by Urban Tree Management in May 2020 (**Appendix 4.3-1**)<sup>1</sup> and biological database queries conducted for the project site by ICF in September 2020 (**Appendix 4.3-2**).

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. The NOP comments pertaining to biological resources include comments from the California Department of Fish and Wildlife (CDFW) that recommend mitigation for nesting birds and roosting bats and note the potential for special-status species, including Alameda song sparrow and hoary bat, to be present on the project site. These issues are addressed below in Section 4.3.4, *Impacts and Mitigation Measures*.

### 4.3.2 Environmental Setting

This section provides a discussion of the existing conditions related to biological resources on the project site.

#### 4.3.2.1 Regional Setting

The city of South San Francisco encompasses approximately 4,298 acres and is largely composed of single-use areas, with industry in the eastern and southeastern portions of the city and single-family homes to the north and west. Much of the city is already urbanized, and the amount of vacant land is limited. The project site is located within the Pacific Flyway, which extends from Alaska to Patagonia; the Pacific Flyway is one of four major flyways in North American used by migratory birds for their annual migrations. Naturally occurring open space in proximity to the project site includes San Bruno Mountain State and County Park, 1.65 miles to the northwest; San Francisco Bay, 1.1 mile to the east, and San Francisco watershed land, 2 miles to the southwest. In addition, a north-south running strip of fragmented open space belonging to San Francisco International Airport (known as the West of Bayshore Subarea to the Airport Planning Department) is 0.6 mile southeast of the project site.

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<sup>1</sup> Urban Tree Management. 2020. Tree Inventory of Southline, South San Francisco, CA 94080. May 13.

### 4.3.2.2 Project Site

The project site totals approximately 33 acres and is comprised of the Specific Plan area and the off-site improvement areas. The Specific Plan area is located in the City of South San Francisco, and comprises seven parcels totaling approximately 26.5 acres, which are completely developed. The off-site improvement areas, which include approximately 6.4 acres, portions of which are located within the jurisdictions of the City of South San Francisco, the City of San Bruno, and Bay Area Rapid Transit (BART), are also completely developed. The project site is bounded by commercial, industrial, and warehouse facilities to the north and east; to the south are predominately single-family residences. To the west are the San Bruno BART station, The Shops at Tanforan, and the San Bruno Towne Center.

The Specific Plan area includes 15 existing buildings and/or structures ranging in height from one to three stories and totaling approximately 344,000 square feet, all of which would be removed in connection with implementation of the project. The existing buildings include occupied and unoccupied office, industrial, warehouse, and storage uses. In addition, surface parking lots with approximately 380 surface parking spaces are interspersed among the Specific Plan area buildings. The off-site improvement areas consist of rights-of-way and easements developed with existing circulation and utility infrastructure improvements. The topography of the project site and surrounding area is relatively flat, with a slight slope downward toward the northeast. The Specific Plan area contains some ornamental landscaping and approximately 162 trees, including two protected trees.<sup>2,3</sup> The off-site improvement areas contain additional ornamental landscaping and approximately 19 trees, with four trees near the intersection of South Linden Avenue and Dollar Avenue in the city of South San Francisco, and approximately 15 trees near the proposed Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue intersection in the cities of South San Francisco and San Bruno.<sup>4</sup>

The trees and buildings on or adjacent to the project site could provide nesting substrate for bird and bat species. No sensitive natural communities, wetlands, streams, or other aquatic features are present on the project site.

### 4.3.2.3 Phase 1 Site

As a component of the developed project site, the environmental setting of the Phase 1 site is the same as described for the project site overall. The 16.96-acre Phase 1 site includes approximately 11.93 acres of the Specific Plan area in the City of South San Francisco and approximately 5.03 acres of off-site improvement areas in the cities of South San Francisco and San Bruno. The Phase 1 site is developed with nine buildings ranging in height from one to three stories. The portion of the Phase 1 site within the Specific Plan area contains ornamental landscaping and approximately 80 trees; the off-site improvement areas included in the Phase 1 site contain additional ornamental landscaping and approximately 19 trees. No protected trees are located within the Phase 1 site.

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<sup>2</sup> Urban Tree Management. 2020. Tree Inventory of Southline, South San Francisco, CA 94080. May 13.

<sup>3</sup> City of South San Francisco. n.d. *South San Francisco Municipal Code*. Chapter 13.30, Tree Preservation. Available: [http://www.qcode.us/codes/southsanfrancisco/?view=desktop&topic=13-13\\_30-13\\_30\\_080](http://www.qcode.us/codes/southsanfrancisco/?view=desktop&topic=13-13_30-13_30_080). Accessed: September 16, 2020.

<sup>4</sup> Aerial and street view imagery from Google Earth was used to approximate the number of trees in the off-site improvement areas.

The trees and buildings on or adjacent to the Phase 1 site could provide nesting substrate for bird and bat species. No sensitive natural communities, wetlands, streams, or other aquatic features are present on the Phase 1 site.

### 4.3.3 Regulatory Framework

This section provides a summary of the biological resources plans and policies of federal, state, and local agencies that have policy and regulatory control over the project site.

#### 4.3.3.1 Federal

##### **Federal Endangered Species Act**

The federal Endangered Species Act (FESA) (16 United States Code [USC], Section 1531 et seq.) designates threatened and endangered animal and plant species and provides measures for their protection and recovery. *Take* (i.e., to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct) of listed plant or wildlife species is prohibited without first obtaining a federal permit. The FESA also generally requires a determination of critical habitat for listed species. If critical habitat has been designated, impacts on areas that contain the primary constituent elements identified for the species, whether or not the species is currently present, are also prohibited. FESA Section 7 (for actions by federal agencies) and Section 10 (for actions by non-federal agencies) provide pathways for obtaining authority to take listed species.

##### **Migratory Bird Treaty Act**

The federal Migratory Bird Treaty Act (MBTA) (16 USC, Section 703, Supplement I, 1989) prohibits any attempt to take, kill, possess, sell, or trade migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act applies to whole birds, parts of birds, and bird nests and eggs. Although the MBTA itself does not provide specific take avoidance measures, over time, the U.S. Fish and Wildlife Service (USFWS) has developed measures regarding take avoidance with respect to nesting birds. These measures include avoiding vegetation removal or ground disturbance during the nesting season (typically February 15–September 15), conducting preconstruction nesting bird surveys in a project area during nesting season, and establishing appropriately sized protective buffers if active nests are found.

On December 22, 2017, the U.S. Department of the Interior Office of the Solicitor issued a memorandum: M-37050 The Migratory Bird Treaty Act Does Not Prohibit Incidental Take (referred to as the Jorjani Opinion). On August 11, 2020, the United States District Court Southern District of New York concluded that the Jorjani Opinion is contrary to the plain meaning of the MBTA and therefore must be vacated. The court has since vacated the Jorjani Opinion and remanded the case to U.S. Department of the Interior and USFWS for further action. If the Jorjani Opinion were adopted, it would have impacted implementation of the MBTA; however, since the Jorjani Opinion has been vacated and remanded, it is not anticipated to impact this analysis and therefore is not discussed further.

##### **Federal Clean Water Act, Section 404**

The Clean Water Act is the primary federal law that protects the quality of the nation's waters, including wetlands, lakes, rivers, and coastal areas. Section 404 of the Clean Water Act regulates the

discharge of dredged or fill material into the waters of the United States, including wetlands. The Clean Water Act provides that all discharges into the nation's waters are unlawful unless specifically authorized by a permit; issuance of such permits constitutes its principal regulatory tool.

The U.S. Army Corps of Engineers (USACE) is authorized to issue Section 404 permits, which allow the placement of dredged or fill materials into jurisdictional waters of the United States under certain circumstances. The USACE issues two types of permits under Section 404: general permits, which are either nationwide permits or regional permits, and standard permits, which are either letters of permission or individual permits. General permits are issued by the USACE to streamline the Section 404 permitting process for nationwide, statewide, or regional activities that have minimal direct or cumulative environmental impacts on the aquatic environment. Standard permits are issued for activities that do not qualify for a general permit because they may have more than a minimal adverse environmental impact.

### **Federal Clean Water Act, Section 401**

Under Clean Water Act Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the state in which the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality, including projects that require federal agency approval, such as issuance of a Section 404 permit, must also comply with Clean Water Act Section 401 and the Porter-Cologne Water Quality Control Act (Porter-Cologne). In California, Section 401 certification is handled by the nine Regional Water Quality Control Boards (RWQCBs) and the State Water Resources Control Board. The city of South San Francisco falls under the jurisdiction of the San Francisco Bay RWQCB. The San Francisco Bay RWQCB must certify that the discharge will comply with state water quality standards and other requirements of the Clean Water Act.

### **USACE Jurisdictional Areas**

In January 2020, U.S. EPA and USACE signed an agreement on a new definition of *waters of the United States*; this agreement is known as the new Navigable Waters Protection Rule (NWPR). The NWPR revised the definition of waters that are federally regulated under the CWA. The new NWPR narrows the definition of *waters of the United States*, focusing on traditional navigable waters and whether there is a surface water connection between them. The NWPR was published in the Federal Register on April 21, 2020 (85 Federal Register 22250) and became effective June 22, 2020.

The revised definition identifies four clear categories of federally regulated waters.

- Territorial seas and traditional navigable waters
- Perennial and intermittent tributaries to those waters
- Certain lakes, ponds, and impoundments
- Wetlands that are adjacent to jurisdictional waters.

This final action lists 12 categories of exclusions, including the following.

- Features that only contain water in direct response to rainfall (e.g., ephemeral streams)
- Groundwater

- Many ditches, including most farm and roadside ditches
- Prior converted cropland
- Farm and stock watering ponds
- Waste treatment systems.

There must be surface water connection that is at least intermittent or perennial: “wetlands that are meaningfully connected to other jurisdictional waters, for example, by directly abutting or having regular surface water communication with jurisdictional waters.” However, there can be non-jurisdictional connectors (e.g., ditches, sheet flow) between two jurisdictional waters.

The revised definition leaves unchanged the parameters used to identify and delineate wetlands and the Ordinary High Water Mark (OHWM) characteristics used to define the upper boundary of USACE jurisdiction over non-wetland waters such as streams, ponds, and lakes. The boundaries of non-tidal, non-wetland waters (streams) were delineated at the OHWM as defined in 33 Code of Federal Regulations (CFR) 328.3. The OHWM represents the limit of potential USACE jurisdiction over non-tidal waters (e.g., streams, ponds) in the absence of adjacent wetlands (33 CFR 328.04).

USACE defines *jurisdictional wetlands* under CWA Section 404 as areas that exhibit positive field indicators for all three wetland parameters. The three parameters used to determine the presence of CWA Section 404 wetlands are (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. According to the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (1987 Manual; Environmental Laboratory 1987:12), “evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation.”

### 4.3.3.2 State

#### California Endangered Species Act

Administered by the CDFW, the California Endangered Species Act (CESA) prohibits the take of listed species as well as species that are formally under consideration for listing in California, referred to as *candidate species*. Under the CESA, *take* means to “hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill” (California Fish and Game Code Section 86). Under this definition, in contrast to the FESA, the CESA does not prohibit harm to a listed species. Furthermore, take under the CESA does not include “the taking of habitat alone or the impacts of the taking” (*Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018). However, the killing of a listed species that is incidental to an otherwise lawful activity and not the primary purpose of the activity constitutes take under the CESA; in contrast to FESA, “incidental take” is not defined in state statutes or regulations.<sup>5</sup>

#### State Fish and Game Code, Section 1600–1616

The CDFW has jurisdictional authority over streams and lakes, as well as wetland resources associated with these aquatic systems, under California Fish and Game Code Section 1600 et seq. The CDFW has the authority to regulate work that will “substantially divert or obstruct the natural

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<sup>5</sup> CDFW 2021. *CESA to the Federal Endangered Species Act*. Available: <https://wildlife.ca.gov/Conservation/CESA/FESA>. Available: Accessed: September 10, 2021.

flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake” (California Fish and Game Code Section 1602.). An entity that proposes to carry out such an activity must first inform CDFW. Where CDFW concludes that the activity will “substantially adversely affect an existing (2014) fish or wildlife resource,” the entity proposing the activity must negotiate an agreement with CDFW that specifies terms under which the activity may be carried out in a way that protects the affected wildlife resource.

### **Porter-Cologne Water Quality Control Act**

California Water Code Section 13260 requires “any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements).” Under the Porter-Cologne definition, *waters of the state* are “any surface water or groundwater, including saline waters, within the boundaries of the state.” Although all waters of the United States that are within the borders of California are also waters of the state, the reverse is not true. Accordingly, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether USACE has concurrent jurisdiction under CWA Section 404. If USACE determines that a wetland is not subject to regulation under Section 404, CWA Section 401 water quality certification is not required. However, the RWQCB may impose waste discharge requirements if fill material is placed into waters of the state.

### **Waters of the State**

Under the recent Wetland Riparian Area Protection Policy (May 28, 2020), RWQCBs will maintain jurisdiction over features excluded in the U.S. Environmental Protection Agency (EPA) and the Department of Army’s Navigable Waters Protection Rule (NWPR). The newly adopted regulations (April 2, 2019) by the State Water Resources Control Board entitled “State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State” create a new statewide wetland definition that expands to features not previously covered under federal law and creates a new permitting program for activities that result in the discharge of dredged or fill materials to any waters of the state. The new rules are adopted under the federal CWA and the state Porter-Cologne Act. Under the latter act, *waters of the state* are broadly defined as “[a]ny surface water or groundwater, including saline waters within state boundaries,” including both natural and certain artificial or constructed facilities. Waters of the state include both waters of the United States and non-federal waters of the state.

### **California Native Plant Protection Act**

The California Native Plant Protection Act of 1977 (CNPPA) prohibits the importation of rare and endangered plants into California, take of rare and endangered plants, and sale of rare and endangered plants. The CESA defers to the CNPPA, ensuring that state-listed plant species are protected when state agencies are involved in projects that are subject to the California Environmental Quality Act (CEQA). In this case, plants that are listed as rare under the CNPPA are not protected under the CESA but rather under CEQA.

### **California Fish and Game Code – Fully Protected Species**

Certain species are considered fully protected, meaning that the California Fish and Game Code explicitly prohibits all take of individuals from these species, except for take permitted for scientific research and relocation of bird species for the protection of livestock. Fully protected amphibians and reptiles, fish, birds, and mammals are listed in Sections 5050, 5515, 3511, and 4700, respectively, of the California Fish and Game Code.

### **California Fish and Game Code – Protection of Birds and Their Nests**

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls) or of their nests and eggs. Migratory non-game birds are protected under Section 3513, whereas other specified birds are protected under Section 3800.

### **California Fish and Game Code – Protection of Non-game Mammals**

Bats and other non-game mammals are protected in California. Section 4150 of the California Fish and Game Code states that all non-game mammals or parts thereof may not be taken or possessed except as otherwise provided in the Fish and Game Code or in accordance with regulations adopted by the Fish and Game Commission. Thus, destruction of an occupied, non-breeding, bat roost, resulting in the death of bats, or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), is regulated under the Fish and Game Code.

#### **4.3.3.3 Local**

##### **South San Francisco General Plan**

The 1999 South San Francisco General Plan provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The City General Plan contains an Open Space and Conservation Element, which outlines policies relating to habitat and biological resources, water quality, air quality, greenhouse gas emissions and historic and cultural resources conservation. The General Plan includes the following policies applicable to biological resources:

- Policy 7.1-G-1: Protect special-status species and supporting habitats within South San Francisco, including species that are state or federally listed as endangered, threatened, or rare.
- Policy 7.1-I-1: Cooperate with state and federal agencies to ensure that development does not substantially affect special-status species appearing on any state or federal list for any rare, endangered, or threatened species. Require assessments of biological resources prior to approval of any development on sites with ecologically sensitive habitat, as depicted in Figure 7-1.
- Policy 7.2-G-1: Comply with the San Francisco Bay Regional Water Quality Control Board regulations and standards to maintain and improve the quality of both surface water and groundwater resources.

- Policy 7.2-G-3: Discourage use of insecticides, herbicides, or toxic chemical substances within the city.
- Policy 7.2-I-1: Continue working with the San Francisco Bay Regional Water Quality Control Board in the implementation of the National Pollutant Discharge Elimination System and continue participation in the San Mateo Countywide Stormwater Pollution Prevention Program for the protection of surface water and groundwater quality.

## South San Francisco Municipal Code

Chapter 13.30, *Tree Preservation*, of the South San Francisco Municipal Code concerns the preservation of trees for the health, welfare, and quality of life of the citizens of the City. Trees preserve the scenic beauty of the City, maintain ecological balance, prevent the erosion of topsoil, counteract air pollution and oxygenate the air, absorb noise, maintain a climatic and microclimatic balance, help block wind, and provide shade and color. The chapter is designed to:

- Provide standards and requirements for the protection of certain large trees (trees with a circumference of 48 inches or greater at 54 inches above the natural grade), heritage trees, as well as trees and stands with unique characteristics (having been so designated by the Parks and Recreation director);
- Provide standards and requirements for the planting and maintenance of trees for new development; and
- Establish recommended standards for the planting and maintaining of trees on property that is already developed.

The chapter achieves these objectives in ways that support and encourage reasonable economic enjoyment of private property, not in ways that prevent it (SSFMC Section 13.30.010; Ordinance 1271, Section 1 [part], 2000; Ordinance 1060, Section 1 [part], 1989).

According to South San Francisco Municipal Code Chapter 13.30, certain trees are subject to conditions before being removed, pruned, or otherwise materially altered. Protected trees include heritage trees and are defined by South San Francisco Municipal Code Chapter 13.30.020 as follows:

1. Any upright, single-trunked tree of a species not considered to be a heritage tree, as defined in Subsection 3, below, or listed in Subsection 2, below, with a circumference of 48 inches or more when measured 54 inches above natural grade; or
2. Any upright, single-trunk tree of the following species: blue gum (*Eucalyptus globulus*), black acacia (*Acacia melanoxylon*), myoporum (*Myoporum laetum*), sweetgum (*Liquidambar styraciflua*), glossy privet (*Ligustrum lucidum*), or Lombardy poplar (*Populus nigra*) with a circumference of 75 inches or more when measured 54 inches above natural grade; or
3. Any upright, single-trunk tree considered to be a heritage tree species, with a circumference of 30 inches or more when measured at 54 inches above natural grade. A heritage tree means any of the following: California bay (*Umbellularia californica*), oak (*Quercus* spp.), cedar (*Cedrus* spp.), California buckeye (*Aesculus californica*), Catalina ironwood (*Lyonothamnus asplenifolium*), strawberry tree (*Arbutus* spp.), mayten (*Maytenus boaria*), or little gem dwarf southern magnolia (*Magnolia grandiflora*, "Little Gem").

4. A tree or stand of trees so designated by the director, based upon findings that it is unique and of importance to the public due to its unusual appearance, location, historical significance, or other factor; or
5. A stand of trees in which the director has determined each tree is dependent upon the others for survival.

Protected trees cannot be removed or pruned without a permit from the City and must be protected from development-related impacts such as soil compaction and underground trenching for utilities. In addition, new developments must conform to a series of tree planting requirements.

## San Bruno Plans and Policies

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno (San Bruno) but would not develop any new structures or new land uses in San Bruno. The improvements would occur on areas that are already developed with existing circulation improvements. The specific off-site improvements located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. This section identifies and evaluates the proposed project's consistency with relevant policies from the San Bruno General Plan and the San Bruno Municipal Code related to biological resources as related to the portions of the off-site improvements located within San Bruno's jurisdiction. For additional discussion of the proposed project's consistency with San Bruno land use plans and policies, refer to Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*.

### San Bruno General Plan

The 2009 San Bruno General Plan outlines a vision for the long-range physical and economic development of the community through 2025. This vision includes balanced development, conservation of residential neighborhoods, and revitalization of downtown and other aging commercial and industrial areas. The San Bruno General Plan land use designations, policies, and implementing actions will guide City of San Bruno officials in making decisions on private development proposals and public facilities. The San Bruno General Plan contains an Environmental Resources and Conservation Element, which outlines policies relating to biological resources and habitat, water quality, air quality, global climate change, historical and cultural resources, and environmental resources and conservation policies. The General Plan includes the following policies applicable to biological resources that are relevant to the proposed off-site improvements in San Bruno's jurisdiction:

- ERC-A: Preserve open space essential for the conservation of San Bruno's natural resources—including vegetation, wildlife, soils, water, and air.
- ERC-B: Protect the natural environment, including wild life, from destruction during new construction or redevelopment within San Bruno.

- ERC-C: Recognize areas of overlapping jurisdiction with respect to open space and environmental resources, and coordinate the City of San Bruno's actions with efforts of surrounding cities, agencies, and San Mateo County.
- ERC-3: Protect natural vegetation in park, open space, and scenic areas as wildlife habitat, to prevent erosion, and to serve as noise and scenic buffers.
- ERC-5: Preserve critical habitat areas and sensitive species within riparian corridors, hillsides, canyon areas, tree canopies, and wetlands that are within the City of San Bruno's control. Protect declining or vulnerable habitat areas from disturbance during design and construction of new development.
- ERC-6: Preserve wetland habitat in the San Francisco Bay Margins along the eastern edge of city land as permanent open space. Where jurisdiction allows, establish buffer zones at the edge of wetland habitats and identify buffer zones as areas to restrict development. Environmental concerns should be addressed during stormwater maintenance activities.
- ERC-7: Ensure that construction adjacent to open can yon areas is sensitive to the natural environment. Preserve the natural topography and vegetation.
- ERC-10: Require incorporation of native plants into landscape plans for new development as feasible—especially in areas adjacent to natural areas, such as canyons or scenic roadways. Require preservation of mature trees, as feasible, during design and construction.
- ERC-11: Prohibit the use of any new non-native invasive plant species in any landscaped or natural area. Develop a program for abatement of non-native invasive species in open space or habitat areas.
- ERC-12: Balance the need for fire safety and invasive plant species management with new considerations along the city's scenic corridors. Encourage buildings to be locked outside of the tree's dripline or 12 feet from the tree trunk, whichever is greater, and/or incorporating special techniques to minimize root damage, etc.
- ERC-13: Through environmental review, assure that all ERC-13 projects affecting resources of regional concern (e.g., the San Francisco garter snake habitat, water and air quality, the San Francisco Fish and Game Reserve) satisfy regional, State and federal laws.
- ERC-14: Preserve wetlands habitat and associated species in compliance with the federal "no net loss" policy using mitigation measures such as:
  - Avoidance of sensitive habitat areas;
  - Clustering of development away from wetlands;
  - Transfer of development rights for preservation of existing sensitive lands; and/or
  - Compensatory in-kind mitigation, such as restoration or creation.
- ERC-15: Consult with the California Department of Fish and Game to determine significant habitat areas. Identify priorities for acquisition or maintenance of open space areas based on biological or environmental concerns.
- ERC-16: Conduct presence/absence biological surveys for sensitive plant and animal species in natural areas prior to any construction activities proposed adjacent to or within identified natural areas. If no special status species are detected during these surveys, then construction-

related activities may proceed. If listed special status species are found with the construction zone, then avoid these species and their habitat or consult with U.S. Fish and Wildlife Service and/or California Department of Fish and Game.

- ERC-17: If construction activities, including tree removal activities, are required adjacent to or within natural areas, then avoid activities during March through June unless a bird survey is conducted to determine that the tree is unused during the breeding season by avian species that are protected under California Fish and Game Codes 3503, 3503.5, and 3511.
- ERC-18: Coordinate efforts with the San Mateo County Flood Control District, Caltrans, Golden Gate National Recreation Area, San Francisco Airport, Peninsula Watershed lands, and Junipero Serra County Park to develop or preserve and manage interconnecting wildlife movement corridors.

### San Bruno Municipal Code

Chapter 8.24, *Street Trees and Other Plantings*, and Chapter 8.25, *Heritage Trees*, in Title 8, *Streets, Sidewalks, and Rights-of-Way*, of the San Bruno Municipal Code concern the preservation of trees. Chapter 8.24 provides a plan to regulate the planting and maintenance of trees and other plantings in and along the public streets, ways, and public easements within San Bruno and to provide for orderly development and promote the health, safety, comfort, and general welfare of the public. (Ordinance 1668, Section 2, 2002). Chapter 8.25 notes that the vast majority of trees within San Bruno are located on private property, and the provisions in Chapter 8.24 for the protection of street trees are inadequate to fully protect and preserve the San Bruno's urban forest canopy against the unregulated pruning and removal of mature trees on private property. Chapter 8.25 regulates the removal of heritage trees within San Bruno in order to retain as many trees as possible.

Protected trees, which include street trees and heritage trees, are defined by San Bruno Municipal Code, Title 8, as follows:

- Street tree: any tree planted after the adoption of Ordinance No. 1320 within any street, right-of-way, or easement adjacent thereto. (Ordinance 1320, Section 1, 1979 [prior code: Sections 25-2.1–25-2.6]). The director of public works or designee shall be solely responsible for determining whether existing trees planted in or adjacent to the public right-of-way are to be deemed official street trees for purposes of the application of this chapter;
- Heritage tree:
  1. 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 54 inches above natural grade;
  2. Any tree or stand of trees designated by resolution of the San Bruno City Council to be of special historical value or of significant community benefit;
  3. A stand of trees, the nature of which makes each dependent on the others for survival; or
  4. Any other tree with a trunk diameter of 10 inches or more, measured 54 inches above natural grade.

Pursuant to San Bruno Municipal Code Chapter 8.24, a permit is required prior to pruning, removal, or interference with street trees and tree stakes. Pursuant to Chapter 8.25, a permit is required for the removal or certain types of pruning of heritage trees. Protected trees cannot be removed,

pruned, or otherwise materially altered without a permit from the City of San Bruno and must be protected from development-related impacts. Removed protected trees are required to be replaced in accordance with San Bruno Municipal Code requirements (in the case of street trees, in-lieu fees may be paid). In addition, new developments must conform to a series of tree planting requirements.

#### 4.3.4 Impacts and Mitigation Measures

This section describes the impact analysis related to biological resources for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

##### 4.3.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant biological resources impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

##### 4.3.4.2 Approach to Analysis

The evaluation of the proposed project's impacts on biological resources is based on a desktop review of the following sources:

- California Natural Diversity Database<sup>6</sup> (CNDDB) species list query for a 1-mile buffer around the project site;

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<sup>6</sup> California Department of Fish and Wildlife. 2020. *California Natural Diversity Database RareFind Records Search*. RareFind Version 5. Available: <https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data>. Accessed: September 16, 2020.

- California Native Plant Society<sup>7</sup> species list query for the U.S. Geological Survey South San Francisco (3712264), Hunters Point (3712263), Montara Mountain (3712254), and San Mateo (3712253) 7.5-minute quadrangles;
- USFWS<sup>8</sup> Information for Planning and Consultation (IPaC) query of the project site;
- Tree Inventory of Southline, South San Francisco, CA 94080;<sup>9</sup>
- South San Francisco General Plan;<sup>10</sup>
- San Bruno General Plan;<sup>11</sup>
- National Wetland Inventory and EPA for the identification of waters and wetlands, using existing water/wetland inventory data;<sup>12,13</sup> and
- Aerial imagery from Google Earth (using a representative address for the project site for search purposes).<sup>14</sup>

### Buildout Scenario Studied (Office Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the proposed project would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the proposed project: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses 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’s biological resources impacts are site-specific, and analysis of the potential impacts related to special-status species, sensitive natural communities, protected wetlands, the use of a site as a wildlife corridor or nursery site, and local policies or ordinances protecting biological resources

<sup>7</sup> California Native Plant Society. 2019. *Online Inventory of Rare and Endangered Plants of California*. Available: [http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox\\_9.htm](http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox_9.htm). Accessed: September 16, 2020.

<sup>8</sup> U.S. Fish and Wildlife Service. 2020. *IPaC Species List*. Available: <https://ecos.fws.gov/ipac/>. Accessed: September 16, 2020.

<sup>9</sup> Urban Tree Management. 2020. Tree Inventory of Southline, South San Francisco, CA 94080. May 13.

<sup>10</sup> City of South San Francisco. 1999. *City of South San Francisco General Plan, Chapter 7: Open Space and Conservation Element*. Available: <https://www.ssf.net/home/showdocument?id=480>. Accessed: September 16, 2020.

<sup>11</sup> City of San Bruno. 1999. *San Bruno General Plan, Chapter 6: Environmental Resources & Conservation*. Available: [https://www.sanbruno.ca.gov/gov/city\\_departments/commdev/planning\\_division/long\\_range\\_planning/general\\_plan.htm](https://www.sanbruno.ca.gov/gov/city_departments/commdev/planning_division/long_range_planning/general_plan.htm). Accessed: October 8, 2020.

<sup>12</sup> U.S. Fish and Wildlife Service. 2019. *National Wetland Inventory*. October 8. Available: <https://www.fws.gov/wetlands/data/Mapper.html>. Accessed: September 16, 2020.

<sup>13</sup> U.S. Environmental Protection Agency. 2020. *WATERS GeoViewer*. Available: <https://www.epa.gov/waterdata/waters-geoviewer>. Accessed: September 16, 2020.

<sup>14</sup> Google Earth Pro. 2018. Online research, 240 Dollar Avenue (representative address used for search purposes), 37.641463°N and -122.414340°W. Available: <https://www.google.com/earth/versions/#earth-pro>. Accessed: September 16, 2020.

is dependent on a number of factors, including the project location, the amount of existing development, the type of habitat present, the presence of trees, the type of construction disturbance and activities, and other factors. The two buildout scenarios occur on the same parcels within the Specific Plan area and off-site improvement areas, and have the same amount of existing development, type of habitat, and number of trees. While the two potential buildout scenarios are similar, the Office Scenario has the greatest building footprint (543,315 square feet versus 531,765 square feet), lot coverage (49 percent versus 46 percent), built area (2,800,000 square feet versus 2,025,050 square feet), and building height (up to 115 feet above ground level versus 113 feet). Therefore, the Office Scenario has a slightly greater potential to result in significant impacts, specifically those related to the movement of wildlife species, including birds, and is analyzed as the “worst-case” scenario.

#### 4.3.4.3 Impact Evaluation

**Impact BIO-1: The project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS. (Project: Less than Significant with Mitigation; Phase 1: Less than Significant with Mitigation)**

##### Project

The project site and surrounding area are characterized by dense urban development and are void of natural land cover or communities. Therefore, special-status species are not anticipated to occur on or in proximity to the project site with the exception of peregrine falcon (*Falco peregrinus*), roosting special-status bat species (i.e., pallid bat [*Antrozous pallidus*], Townsend’s big-eared bat [*Corynorhinus townsendii*]), and hoary bat [*Lasiurus cinereus*]), additional bat species protected under state law (California Fish and Game Code 4150), and resident and migratory nesting birds protected under state (California Fish and Game Code Sections 3503, 3503.5 and 3513) and federal (e.g., MBTA) laws. Peregrine falcon has additional protection under state law (California Fish and Game Code Sections 3503.5). Queries of USFWS, CDFW’s CNDDDB, and the California Native Plant Society regarding species with potential to occur in the region that were considered in this analysis are included in **Appendix 4.3-2** of this EIR. Additional species (other than those listed above) shown in the queries have low or no potential to occur on the project site due to lack of suitable habitat on the project site and the amount of dense urban development between potential habitat and the project site, which acts as a barrier to movement and sound.

In its response letter to the NOP (**Appendix 1**), CDFW noted a potential for Alameda song sparrow, a species of special concern designated by CDFW, to be present on the project site. This species is not anticipated to be present on or near the project site due to lack of habit (i.e., brackish marsh associated with pickleweed) for the species; its nearest habitat is a tidal slough located approximately 0.20 mile east of the project site. The project site is separated from this habitat by multiple paved roads, buildings, and railroad tracks, thus, the proposed project would not impact Alameda song sparrow if present in the slough.

Peregrine falcon is designated as fully protected by CDFW. Peregrine falcons normally nest in a scrape on a cliff ledge, but will also nest in snags or large vacant nests in trees and on structure

ledges including buildings; pigeons are often favored prey around cities.<sup>15</sup> Although nesting habitat on-site is marginal due to the moderate stature of the existing on-site trees and the one to three story<sup>16</sup> existing buildings on the project site, the buildings and trees within and surrounding the project site may provide suitable nesting and roosting habitat for this species. In addition, open-air space in and around the project site provides foraging habitat if prey is present. The nearest CNDDDB occurrence for peregrine falcon (occurrence #55) was in 2014. Although CNDDDB does not disclose the exact location of the occurrence, the size of the occurrence area is approximately eight square miles and includes the project site. The CNDDDB occurrence indicates the nest was located on the side of a hangar, which is a structure typically found at an airport. Thus, it is presumed the occurrence was at least 0.85 mile southeast of the project site at San Francisco International Airport. Nonetheless, if nests of this species are present on-site or in the surrounding area, and eggs, nestlings, or nesting individuals are taken during construction activities including tree removal or building demolition, a significant impact would occur.

In addition to peregrine falcon, on-site buildings and vegetation including trees may also provide suitable nesting habitat for resident and migratory birds that are protected under state (California Fish and Game Code Sections 3503 and 3513) and federal (e.g., MBTA) laws, special-status bat species including pallid bat, Townsend's big-eared bat, and hoary bat, and other bat species protected under state (California Fish and Game Code 4150) law. Pallid bat is designated as a species of special concern by CDFW and Townsend's big-eared bat is a candidate for state threatened listing by CDFW. In addition, the Western Bat Working Group designates pallid bat and Townsend's big-eared bat as "high" and hoary bat as "medium" in relation to priority for funding, planning, and conservation actions. Although there are no recent CNDDDB occurrences (since 1960) of pallid bat in San Mateo County and no CNDDDB occurrences of pallid bat in nearby San Francisco County, there are several presumed extant occurrences of hoary bat and Townsend's big-eared bat in San Mateo and San Francisco counties. The nearest presumed extant CNDDDB occurrence for hoary bat (#119 from 1990) overlaps with the project site, and the nearest presumed extant CNDDDB occurrence for Townsend's big-eared bat (#431 from 2011) is approximately 2.41 miles southwest of the project site. While being completely developed, the project site has moderate potential for roosting bats due to the presence of potential on-site roosting habitat and nearby foraging habitat. Potential on-site roosting habitat for bats include the old vacant buildings and trees. Riparian woodland, orchards, and stands of mature broadleaf trees are considered potential habitat for solitary foliage-roosting bat species. Foraging habitat in proximity to the project site includes the California Golf Club of San Francisco, Golden Gate National Cemetery, Crestmoor Canyon, San Bruno Mountain State and County Park, Colma Creek, the San Francisco Bay shoreline, and San Francisco International Airport's West-of-Bayshore property. Bat occupancy of on-site structures depends on access points (e.g., building vent, opening in the roof or wall, an open window) or suitable roosting habitat under their eaves; occupancy of trees depends on tree size (usually found in large trees) and the presence of cavities. Other non-special-status bat species could also roost in structure cavities. Construction activities including tree removal and structure demolition associated with the proposed project could impact bats resulting in take (i.e., direct mortality of adult or young, the

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<sup>15</sup> National Audubon Society. 2018. *Guide to North American Birds – Peregrine Falcon*. Available: <https://www.audubon.org/field-guide/bird/peregrine-falcon>. Accessed: August 31, 2021.

<sup>16</sup> The buildings on the project site are considered to be of moderate stature because peregrine falcons have only been documented to nest on larger buildings in the Bay Area, including an eight-story building in Berkeley, a 14-story building in Redwood Shores, an 18-story building in San José, and a 34-story building in San Francisco.

destruction of active nesting sites, disturbance of nesting adults, with associated nest abandonment and/or loss of reproductive effort), which would be a significant impact if take were to occur.

On-site buildings and landscaped areas (including trees) may also provide suitable nesting habitat for resident and migratory birds that are protected by state California Fish and Game Code Sections 3503 and 3513) and federal MBTA laws. If the proposed project is implemented during the nesting season February 15–Sept 15), construction activities including tree removal and structure demolition associated with the proposed project could impact nesting birds, resulting in take (i.e., direct mortality of adult or young, the destruction of active nests, disturbance of nesting adults, with associated nest abandonment and/or loss of reproductive effort), which would be a significant impact.

Implementation of **Mitigation Measure BIO-1a** and **Mitigation Measure BIO-1b** would reduce these potentially significant impacts on peregrine falcon, special-status bat species, and nesting birds by ensuring that project activities would not significantly impact nesting special-status species or other resident or migratory birds. Therefore, this impact would be *less than significant with mitigation*. Because all tree removals and building demolition would be conducted during Phase 1, implementation of **Mitigation Measure BIO-1b** would be limited to Phase 1 and not be required in future phases since all potential bat roosting habitat (i.e., structures and trees) would be absent from the project site after completion of Phase 1.

#### **Mitigation Measure BIO-1a: Preconstruction Nesting Bird Surveys and Buffer Areas (All Phases)**

The Phase 1 applicant, and applicants of future Precise Plans, shall implement the following measures prior to the commencement of any demolition or construction activities on the project site that meet the criteria set forth below:

- a. To the extent feasible, conduct initial activities, including, but not limited to, vegetation removal, tree removal, ground disturbance, building or parking lot demolition, site grading, and other construction activities which may compromise breeding birds or the success of their nests outside the nesting season (February 15–September 15).
- b. If construction occurs during the bird nesting season, a qualified wildlife biologist<sup>17</sup> shall conduct a nesting bird preconstruction survey within 14 days prior to the start of construction or demolition at areas within the project site where construction or demolition activities have not previously occurred, or after any pause in construction or demolition activities of 14 days or more in areas where construction or demolition activities have not previously occurred. The survey shall be performed within the following radii of the applicable construction area in order to locate any active nests: 100 feet for passerine species, 300 feet for raptor (birds of prey) species, and 500 feet for peregrine falcon; and shall be of those areas that constitute suitable habitat for these species.

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<sup>17</sup> The experience requirements for a “qualified biologist” shall include a minimum of 4 years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of 2 years of experience conducting surveys for each species that may be present within the project site.

- c. If active nests are located during the preconstruction nesting bird survey, a qualified biologist shall determine if the schedule of construction activities could affect the active nests; if so, the following measures would apply:
  1. If the qualified biologist determines that construction is not likely to affect an active nest, construction may proceed without restriction; however, a qualified biologist shall regularly monitor the nest at a frequency determined appropriate for the surrounding construction activity to confirm there is no adverse effect. Spot-check monitoring frequency would be determined on a nest-by-nest basis, considering the particular construction activity, duration, proximity to the nest, and physical barriers that may screen activity from the nest.
  2. If it is determined that construction may cause abandonment of an active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s), and all project work shall halt within the buffer to avoid disturbance or destruction until a qualified biologist determines that the nest is no longer active. Typically, buffer distances are a minimum of 100 feet for passerines and 300 feet for raptors; however, the buffers may be decreased if an obstruction, such as a building, is within line-of-sight between the nest and construction.
  3. Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests shall be approved by the qualified biologist and in coordination with the Planning Division. To the extent necessary to remove or relocate an active nest, such removal or relocation shall be coordinated with the Planning Division, and the removal or relocation shall be in compliance with the California Fish and Game Code and other applicable laws.
  4. Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed and could compromise the nest, work within the no-disturbance buffer(s) shall halt until the nest occupants have fledged.
  5. Any birds that begin nesting within the project site and survey buffers amid construction activities are assumed to be habituated to construction-related or similar noise and disturbance levels. Work may proceed around these active nests subject to Measure c.2 above.

#### **Mitigation Measure BIO-1b: Preconstruction Bat Surveys and Protection (Phase 1 Only)**

Prior to the demolition of the existing buildings and structures within the Specific Plan area, the Phase 1 applicant shall retain a qualified biologist to conduct a habitat assessment and implement protective measures for pallid bat, Townsend's big-eared bat, and hoary bat, and other roosting bats, which shall include an initial daytime survey to assess the building for potential bat roosting habitat, and to look for bats and signs of bats. It is recommended that the habitat assessment be conducted by a qualified biologist at least two months and no more than six months prior to demolition activities. Qualified biologists shall have knowledge of the natural history of the species that could occur and sufficient experience determining bat occupancy and bat survey techniques. The qualified biologist shall examine both the inside and outside of the buildings and structures for potential roosting habitat, as well as routes of entry to the buildings and structures. Locations of any roosting bats, signs of bat use, and entry and exit points shall be noted and mapped on a drawing of the buildings and structures. Roost sites shall also be photographed as feasible. The methods and results of the habitat assessment and the future

steps to be taken shall be submitted to CDFW. Recommendations received from CDFW shall be considered by the City and incorporated into future steps to be taken unless the City determines them to be infeasible. The City shall make good faith efforts to coordinate with CDFW to discuss revisions to any CDFW recommendations the City considers to be infeasible. Depending on the results of the habitat assessment, the following steps will be taken as described below.

- If the buildings and structures can be adequately assessed (i.e., sufficient areas of the buildings and structures can be examined) and no habitat or limited habitat for roosting bats is present, and no signs of bat use are present, a preconstruction survey of the interior and exterior of the buildings and structures by a qualified biologist shall be conducted within 24 hours of demolition.
- If moderate or high potential habitat is present but there are no signs of bat use, the Phase 1 applicant shall implement feasible measures under the guidance of a qualified biologist to exclude and/or discourage bats from using the buildings and structures as a roost site, such as sealing off entry points. Feasible measures shall be determined based on the condition of the buildings and structures. Prior to installing exclusion measures, a qualified biologist shall re-survey the buildings and structures to ensure that no bats are present. In addition, a preconstruction survey of the interior and exterior of the buildings and structures shall be conducted within 24 hours of demolition to confirm that no bats are present.
- If moderate or high potential habitat is present and bats or signs of bats are observed, or if exclusion measures are not installed as described above, or the buildings or structures provide suitable habitat but could not be adequately assessed, the Phase 1 applicant shall implement the following protective measures.
  - Follow-up surveys shall be conducted to determine if bats are present prior to commencement of demolition. The Phase 1 applicant shall submit a survey plan (number, timing, and type of surveys) to the City and CDFW; recommendations received from CDFW shall be considered and incorporated into the plan unless the City determines them to be infeasible. If CDFW requests that the bats be identified to species, the follow-up survey(s) shall include use of night vision goggles and active acoustic monitoring using full spectrum bat detectors.
  - Based on the timing of demolition, the extent of bat signs and/or occupied habitat, and the species present (if determined), as determined by the qualified biologist, the biologist shall develop a bat exclusion plan to discourage or exclude bat use prior to demolition. The Phase 1 applicant shall submit the bat exclusion plan to the City and CDFW for review and approval, pursuant to Section 4150 of the Fish and Game Code. Reasonable methods to discourage or exclude bat use may include installing exclusion measures such as one-way doors or using light or other means to deter bats from using the buildings and structures to roost, such as sealing large holes or gaps void of bats using the installation of plywood and/or metal sheeting, and/or sealing small holes or gaps void of bats using installation of expandable foam or steel wool.
  - A preconstruction survey of the interior and exterior of the buildings and structures shall be conducted within 24 hours of demolition.

Depending on the species of bats present, the size of the bat roost, and timing of the demolition, additional protective measures may be recommended by the qualified biologist or CDFW, and may include measures listed below, which shall be undertaken by the Phase 1 applicant.

- To avoid impacts on maternity colonies or hibernating bats, the buildings and structures shall not be demolished while bats are confirmed to be present, generally between April 1 and September 15 (maternity season) and from November 1 to March 1 (hibernation).
- Removal of occupied roosting habitat shall only occur following the maternity season and prior to hibernation, generally between September 15 and October 31, unless exclusionary devices are first installed (as described above). Other measures, such as using lights to deter bat roosting, may be used if developed in compliance with applicable law and coordination with and approval by CDFW.
- Installation of exclusion devices shall occur before maternity colonies establish or after they disperse, generally from March 1–30 or September 15–October 31 to preclude bats from occupying a roost site during demolition to the extent feasible. Exclusionary devices shall only be installed by or under the supervision of a qualified biologist.

The Phase 1 applicant shall implement the following measures prior to any tree removal on the project site:

- A qualified biologist shall examine trees to be removed for suitable bat roosting habitat (e.g., large tree cavities, basal hollows, loose or peeling bark, larger snags, palm trees with intact thatch) before tree removal. Trees providing suitable or potential bat habitat shall be marked with flagging and identified as potential habitat. Because of the limited timeframe for tree removal for trees containing bat habitat (i.e., September 15–October 31), the tree habitat assessment should be conducted early enough in the calendar year to provide information to the applicant and City to inform tree removal planning. The protective measures listed below shall be implemented for trees containing potential roosting habitat.
  - Removal or disturbance of trees providing bat roosting habitat shall be avoided between April 1 and September 15 (the maternity period) to avoid effects on pregnant females and active maternity roosts (whether colonial or solitary).
  - Removal of trees providing bat roosting habitat shall be conducted between September 15 and October 31, which corresponds to a time period when bats have not yet entered torpor or would be caring for nonvolant young.
  - If a maternity roost is found, whether solitary or colonial, that roost shall remain undisturbed until September 15 or until a qualified biologist has determined the roost is no longer active. The qualified biologist will determine appropriate no-work buffers around roost and/or hibernaculum sites. Buffer distances may vary depending on the species and activities being conducted.
- Removal of trees (between September 15 and October 31) providing suitable roosting habitat shall be monitored by qualified biologists. Trees that provide suitable habitat for bats shall be removed in a two-phase removal process conducted over two consecutive days. In the afternoon on the first day, limbs and branches shall be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices, or deep bark fissures shall be avoided, and only branches or limbs without those features shall be removed. On the second day, the remainder of the tree shall be removed. A qualified biologist shall search downed vegetation for dead and injured bats. After tree removal and monitoring completion, the biologist shall prepare a biological monitoring report, which shall be provided to the City and to CDFW. The presence of dead or injured bats that are species of special concern resulting from downed trees shall be included in the monitoring report.

Loss of occupied roosting habitat shall be mitigated by constructing and/or installing suitable replacement habitat on-site or near the project site which shall be undertaken by the Phase 1 applicant. The roosting habitat shall be monitored by a qualified biologist to ensure it functions as intended, as set forth under a roosting habitat design and monitoring plan developed in coordination with CDFW.

## Phase 1

The impact under Phase 1 would be the same as under the proposed project because all tree removals and demolition activities are planned during Phase 1. These activities could potentially harm or kill special-status bird (i.e., peregrine falcon) and bat species (i.e., pallid bat, Townsend's big-eared bat, and hoary bat), bat species protected under state (California Fish and Game Code 4150) law, and resident and migratory nesting birds protected under state (California Fish and Game Code 3503, 3503.5, and 3513) and federal (e.g., MBTA) laws which would result in a potentially significant impact. For the reasons stated above in the project analysis, implementation of **Mitigation Measure BIO-1a** and **Mitigation Measure BIO-1b** would reduce these potentially significant impacts on special-status bird and bat species, bat species protected under California Fish and Game Code, and nesting birds protected under the MBTA and California Fish and Game Code, by ensuring that Phase 1 activities would not affect nesting special-status species, other bats, or other resident or migratory birds. Therefore, this impact under Phase 1 would be *less than significant with mitigation*.

**Impact BIO-2: The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS. (Project: No Impact; Phase 1: No Impact)**

## Project

The project site and surrounding area are completely developed, composed entirely of industrial, warehouse, and storage facilities; surface parking lots; and roadways. No riparian habitat or other sensitive natural community is present on the project site or in the immediate vicinity. The nearest creek, Colma Creek, is 0.47 mile north of the project site, just south of North Canal Street.<sup>18,19</sup> The creek is predominately concrete lined and, thus, has little associated riparian habitat. A tidal slough federally classified as estuarine and marine wetland located approximately 0.16 mile east of the project site has potential for pickleweed mats, a sensitive natural community.<sup>20</sup> The project site is separated from this habitat by dense urban development, including multiple paved roads, buildings, and railroad tracks; thus, the proposed project would not affect pickleweed mats if present in the slough. Therefore, the proposed project would have *no impact* on riparian habitat or other sensitive natural communities. No mitigation is required.

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<sup>18</sup> U.S. Fish and Wildlife Service. 2019. *National Wetland Inventory*. October 8. Available: <https://www.fws.gov/wetlands/data/Mapper.html>. Accessed: September 16, 2020.

<sup>19</sup> U.S. Environmental Protection Agency. 2020. *WATERS GeoViewer*. Available: <https://www.epa.gov/waterdata/waters-geoviewer>. Accessed: September 16, 2020.

<sup>20</sup> U.S. Fish and Wildlife Service. 2019. *National Wetland Inventory*. October 8. Available: <https://www.fws.gov/wetlands/data/Mapper.html>. Accessed: September 16, 2020.

## Phase 1

The impact under Phase 1 would be the same as under the proposed project because the entire project site and surrounding area are completely developed, and no riparian habitat or other sensitive natural community is present on the project site or in the immediate vicinity. Therefore, for the reasons stated above in the project analysis, Phase 1 would have ***no impact*** on riparian habitat or other sensitive natural communities. No mitigation is required.

**Impact BIO-3: The project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (Project: No Impact; Phase 1: No Impact)**

## Project

No State or federally protected wetlands or other jurisdictional waters are present on the project site or in the immediate vicinity. The nearest federally protected wetlands in proximity to the project site are: an unnamed vegetated channel classified as riverine habitat located approximately 0.31 mile northwest of the project site, just north of South Spruce Avenue along the Centennial Way Trail; and a tidal slough classified as estuarine and marine wetland located approximately 0.16 mile east of the project site.<sup>21</sup> The project site is separated from these habitats by dense urban development including multiple paved roads and buildings, and would not cause any direct removal, filling, hydrological interruption, or other effects on these features. On-site runoff would not impact these wetlands as runoff is collected in the City's storm drain system which is discharged into Colma Creek that leads to the San Francisco Bay, as discussed in Section 4.9, *Hydrology and Water Quality*, of this EIR. Therefore, the proposed project would have ***no impact*** on State or federally protected wetlands. No mitigation is required.

## Phase 1

The impact under Phase 1 would be the same as under the proposed project because the entire project site and surrounding area are completely developed, and there are no State or federal wetlands or other jurisdictional waters present on the project site or in the immediate vicinity. Therefore, for the reasons stated above in the project analysis, Phase 1 there would have ***no impact*** on State or federally protected wetlands. No mitigation is required.

**Impact BIO-4: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Project: Less than Significant with Mitigation; Phase 1: Less than Significant with Mitigation)**

## Project

No wetlands or running waters are present on or within the vicinity of the project site; therefore, the proposed project would have no impact on the movement of fish species. As discussed above under **Impact BIO-1**, existing buildings, structures, and trees on the project site could provide nesting

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<sup>21</sup> U.S. Fish and Wildlife Service. 2019. *National Wetland Inventory*. October 8. Available: <https://www.fws.gov/wetlands/data/Mapper.html>. Accessed: September 16, 2020.

habitat for resident and migratory birds and bats; therefore, the proposed project has the potential to affect a native wildlife nursery site, which would be a potentially significant impact.

Implementation of **Mitigation Measure BIO-1a** and **Mitigation Measure BIO-1b** would reduce this potentially significant impact on nesting resident and migratory birds and bats by ensuring that project activities would not significantly impact the use of native wildlife nursery sites. Therefore, this impact would be *less than significant with mitigation*.

Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space that would otherwise be separated or fragmented by topography, changes in vegetation, or natural or man-made obstacles, such as urbanization. Because the project site and surrounding area are developed, it does not connect directly to areas of natural open space. Given that the area surrounding the project site is heavily urbanized, large numbers of birds are not expected to be flying over the project site at altitudes low enough for substantial bird-strike mortality to occur. Any common urban-adapted species that currently move through the project site would continue to be able to do so during and following project construction. Notwithstanding, operation of the proposed project would include the use of new lighting and construction of buildings with potentially reflective surfaces. Although the proposed project would remove and replace existing structures, the new lighting and new surfaces could misdirect or confuse migratory birds, resulting in disruption of natural behavioral patterns and possible injury or death from exhaustion or collisions with buildings, which would be a significant impact. The potential for these types of impacts could be heightened because of the project site's proximity to San Bruno Mountain and San Francisco Bay. Section 5.4.10 of the Specific Plan includes various exterior lighting Design Guidelines intended to minimize light intrusion that may reduce impacts to birds, including directing illumination downward, not causing glare or spillover into neighboring properties, and encouraging low voltage and low intensity lighting. Nonetheless additional mitigation is needed to further reduce the potential impact. Implementation of **Mitigation Measure BIO-2a** and **Mitigation Measure BIO-2b** would reduce potentially significant impacts on the native resident or migratory birds by ensuring that project activities would not significantly impact resident or migratory bird movement or use of the project site as a wildlife corridor. Therefore, this impact would be *less than significant with mitigation*.

#### **Mitigation Measure BIO-2a: Lighting Measures to Reduce Impacts on Birds (All Phases)**

During design, the Phase 1 applicant and applicants of future phases shall ensure that a qualified biologist experienced with bird strikes and building/lighting design issues shall identify lighting-related recommended measures to minimize the effects of the building's lighting on birds to. The applicant shall incorporate such measures into the building's design and operation to the extent feasible, subject to design review and approval by the City, which may include the following and/or other measures.

- a. Use strobe or flashing lights in place of continuously burning lights for obstruction lighting. Use flashing white lights rather than continuous light, red light, or rotating beams.
- b. Install shields onto light sources not necessary for air traffic to direct light towards the ground.
- c. Extinguish all exterior lighting (i.e., rooftop floods, perimeter spots) not required for public safety as determined by the City.
- d. When interior or exterior lights must be left on at night, the operator of the buildings shall examine and adopt feasible alternatives to bright, all-night, floor-wide lighting, which may

include installing motion-sensitive lighting, using desk lamps and task lighting, reprogramming timers, or using lower-intensity lighting.

- e. Windows or window treatments that reduce transmission of light out of the building shall be implemented to the extent feasible.

**Mitigation Measure BIO-2b: Building Design Measures to Minimize Bird Strike Risk (All Phases)**

During design, the Phase 1 applicant and applicants of future phases shall ensure that a qualified biologist experienced with bird strikes and building/lighting design issues shall identify recommended measures related to the external appearance of the building to minimize the risk of bird strikes. The applicant shall incorporate such measures into the building's design to the extent feasible, subject to design review and approval by the City, which may include the following and/or other measures:

- a. Minimize the extent of glazing.
- b. Use low-reflective glass and/or patterned or fritted glass.
- c. Use window films, mullions, blinds, or other internal or external features to "break up" reflective surfaces rather than having large, uninterrupted areas of surfaces that reflect, and thus to a bird may not appear noticeably different from, vegetation or the sky.

**Phase 1**

The impact on the movement of fish species under Phase 1 would be the same as under the proposed project because there are no wetlands or running waters are present on or in the vicinity of the project site, therefore Phase 1 would have no impact on the movement of fish species. The impact to native wildlife nursery sites under Phase 1 would be the same as under the proposed project because existing structures and trees planned for removal during Phase 1 could provide nesting habitat for resident and migratory birds and bats, which would be a potentially significant impact. Implementation of **Mitigation Measure BIO-1a** and **Mitigation Measure BIO-1b** would reduce this potentially significant impact on nesting resident and migratory birds and bats by ensuring that project activities would not impede the use of native wildlife nursery sites. Therefore, this impact would be *less than significant with mitigation*.

The impact on wildlife corridors under Phase 1 would be the same as under the proposed project because the project site and surrounding area are developed and do not connect directly to areas of natural open space. Any common urban-adapted species that currently move through the project site would continue to be able to do so following project construction. Nonetheless, the likelihood exists for trees on the project site to be used by migratory birds for foraging and/or roosting during migration. If a substantial number of nesting migratory birds were incidentally injured or killed due to construction or operation under Phase 1, it would be a significant impact. In addition, operation under Phase 1 would include the use of new lighting and construction of buildings with potentially reflective surfaces. While the Phase 1 Precise Plan would be required to comply with Specific Plan Design Guidelines that would reduce light and glare effects, the presence of new lighting and new surfaces could misdirect or confuse migratory birds, resulting in disruption of natural behavioral patterns and possible injury or death from exhaustion or collisions with buildings, which would be a potentially significant impact. Implementation of **Mitigation Measure BIO-1a**, **Mitigation Measure BIO-2a**, and **Mitigation Measure BIO-2b** would reduce these potentially significant impacts on native resident or migratory birds by ensuring that Phase 1 activities would not significantly impact

resident or migratory bird movement or use of the project site as a wildlife corridor. Therefore, for the reasons stated above in the project analysis, this impact would be ***less than significant with mitigation***.

**Impact BIO-5: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

The proposed project would comply with all local policies and ordinances protecting biological resources and is consistent with local general plan policies applicable to biological resources, including applicable policies in the South San Francisco General Plan and San Bruno General Plan, provided in **Section 4.3.3.3, page 4.3-7**. Local policies and ordinances for protecting biological resources located within the City of South San Francisco include the Tree Preservation Ordinance (Chapter 13.30) in the South San Francisco Municipal Code. Local policies and ordinances for protecting biological resources located within the City of San Bruno include the Streets, Sidewalks, and Rights-of-Way Ordinance (Title 8) in the San Bruno Municipal Code, which addresses heritage trees, street trees and other plantings. A tree inventory and assessment of the Specific Plan area was performed by Urban Tree Management in May 2020.<sup>22</sup> A total of 162 trees were documented in the Specific Plan area in the City of South San Francisco, two of which are protected under the City's ordinance. The two protected trees, both blue gum (*Eucalyptus globulus*) with circumferences of over 75 inches when measured 54 inches above grade, are located on the east side of Maple Avenue, north of where the new Southline Avenue east-west connection road is planned. The proposed project would require the removal of all 162 trees in the Specific Plan area, including the two protected trees. Approximately 19 additional trees may be required for removal within the off-site improvement areas (approximately four trees near the South Linden Avenue and Dollar Avenue intersection in the City of South San Francisco, and approximately 15 trees near the new South Maple Avenue and Southline Avenue intersection in the cities of South San Francisco and San Bruno).<sup>23</sup> Tree removals in San Bruno could also involve removal of protected street trees. All tree removals are anticipated to occur during Phase 1. The Phase 1 applicant would be required to abide by all regulations specified in the South San Francisco and San Bruno municipal codes, which would require the Phase 1 applicant to obtain permits to remove protected trees, including street trees, and compensate for their removal by planting replacement trees of certain sizes and species (in the case of San Bruno street trees, in-lieu fees may be paid). Street trees removed in the City of San Bruno would require a permit in accordance with San Bruno Municipal Code Section 8.24.070, which protects street trees designated by the Director of Public Works. The proposed project would include a total of 581 new trees to be planted for a total net increase of 419 trees within the project site; a conceptual landscape plan of the Specific Plan area is provided in Figure 3-20 in Chapter 3, *Project Description*, of this EIR. Additional trees may be planted in the City of San Bruno in accordance with the San Bruno Municipal Code Section 8.24.070 if trees within the off-site improvement areas located in San Bruno require removal and replacement.

The proposed project would comply with local policies and ordinances for protecting biological resources, such as a tree preservation policy or ordinance, ensuring that project activities would not

<sup>22</sup> Urban Tree Management. 2020. Tree Inventory of Southline, South San Francisco, CA 94080. May 13.

<sup>23</sup> Aerial and street view imagery from Google Earth was used to approximate the number of trees in the off-site improvement areas.

result in an unauthorized impact on a protected tree. Therefore, this impact would be ***less than significant***. No mitigation measures are required.

### Phase 1

The impact under Phase 1 would be the same as under the proposed project because all trees are planned for removal during Phase 1 and the Phase 1 applicant would be required to comply with all regulations specified in the South San Francisco and San Bruno municipal codes. The proposed project would plant 311 trees during Phase 1 within the Specific Plan area. Additional trees may be planted in the City of San Bruno in accordance with the San Bruno Municipal Code Section 8.24.070 if trees within the off-site improvement areas located in San Bruno require removal. To the extent applicable, Phase 1 would comply with local policies and ordinances for protecting biological resources, such as a tree preservation policy or ordinance, ensuring that Phase 1 activities would not result in an unauthorized impact on a protected tree. Therefore, for the reasons stated above in the project analysis, this impact under Phase 1 would be ***less than significant***. No mitigation is required.

**Impact BIO-6: The project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. (Project: No Impact; Phase 1: No Impact)**

### Project

The project site is not part of an existing habitat conservation plan (HCP), natural community conservation plan (NCCP), or any other local, regional, or state habitat conservation plan. The nearest area covered by an HCP, the San Bruno Mountain Habitat Conservation Plan, is approximately 1.65 miles north of the project site, and construction and operation of the proposed project would have no direct or foreseeable indirect effects on the area covered by that HCP. Therefore, the proposed project would have ***no impact*** on the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat. No mitigation is required.

### Phase 1

The impact under Phase 1 would be the same as under the proposed project because the project site is not part of an existing HCP, NCCP, or any other local, regional, or state habitat conservation plan. Therefore, for the reasons stated above in the project analysis, Phase 1 would have ***no impact*** on provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat. No mitigation is required.

## 4.3.4.4 Cumulative Impacts

**Impact C-BIO-1: The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on biological resources. (Project: Less than Cumulatively Considerable with Mitigation; Phase 1: Less than Cumulatively Considerable with Mitigation)**

The proposed project would not modify any undeveloped habitat and would have no impact on sensitive natural communities, including riparian habitat; protected wetlands; the movement of native resident or migratory fish species; or an approved conservation plan. Therefore, the

proposed project would not have the potential to contribute to cumulative impacts with regard to these topics.

The cumulative geographic context for other evaluated biological resources is the immediate vicinity of the project site, which is the area where construction activities, including tree removal, could potentially affect biological resources including nesting special-status bird and bat species, nesting migratory birds, and protected trees that may be present on or near the site. The cumulative projects located within approximately 0.5 mile of the project site are described in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR and shown in **Figure 4.1-1**.

Similar to the project site, the majority of the sites for cumulative projects contain development with ornamental landscaping; therefore, habitat for candidate, sensitive, or special-status species is marginal. The future projects would primarily involve primarily the construction of new buildings on previously developed sites or modifications to existing buildings or infrastructure, and associated tree removals. Therefore, as with the proposed project, such development could have an impact on nesting special-status bird and bat species, nesting migratory bird species, the movement of native resident or migratory wildlife species, established native resident or migratory wildlife corridors, the use of native wildlife nursery sites, and local policies or ordinances for protecting biological resources. Cumulative impacts on these biological resources could be significant because reasonably foreseeable projects would affect or remove additional structures and trees and erect new structures. Structures and trees provide roosting and nesting habitat for special-status and migratory birds and act as potential nursery sites; new structures could affect the movement of species. However, these future projects would also be subject to the requirements of the wildlife protection laws, including CESA, MBTA, and the California Fish and Game Code, as well as wildlife protection policies and provisions in the general plans and municipal codes for the cities of South San Francisco and San Bruno. Nonetheless, cumulative impacts on these biological resources would be potentially significant because reasonably foreseeable projects could affect or remove a substantial number of structures and trees and erect new structures.

The proposed project would remove all structures and trees on the project site, and construct several new four- to seven-story buildings in the Specific Plan area. Implementation of **Mitigation Measure BIO-1a**, **Mitigation Measure BIO-1b**, **Mitigation Measure BIO-2a**, and **Mitigation Measure BIO-2b** would require pre-construction surveys for bats and nesting birds as well as building design measures to minimize lighting effects on birds and bird strike risk. Implementation of these mitigation measures would ensure that the proposed project's contribution to cumulative impacts on nesting special-status bat and migratory bird species, the movement of native resident or migratory wildlife species, established native resident or migratory wildlife corridors, the use of native wildlife nursery sites, and local policies or ordinances for protecting biological resources would be less than cumulatively considerable. The impact would be ***less than cumulatively considerable with mitigation***.

## 4.4 Cultural Resources

### 4.4.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on cultural (i.e., historical and archaeological) resources. Impacts on tribal cultural resources are evaluated in Section 4.16, *Tribal Cultural Resources*, of this EIR, and impacts on paleontological resources are evaluated in Section 4.6, *Geology and Soils*, of this EIR. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes Department of Parks and Recreation (DPR) 523A, 523B, and 523L forms prepared for the buildings and structures within the Specific Plan area (**Appendix 4.4-1**) and the *South San Francisco Preliminary Assessment of Potential Historic District* (Potential Historic District Preliminary Assessment) prepared by ICF in August 2021 (**Appendix 4.4-2**).

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. No questions or concerns related to historical or archaeological resources were raised in the responses to the NOP. Comments pertaining to tribal cultural resources were received. These comments are summarized in Section 4.16, *Tribal Cultural Resources*, of this EIR and are included in **Appendix 1**.

### 4.4.2 Environmental Setting

This section provides a discussion of the existing conditions related to cultural resources on the project site. Due to the relationship between cultural resources and tribal cultural resources, some information presented in this discussion is also relevant to tribal cultural resources, and is referenced in Section 4.16, *Tribal Cultural Resources*, of this EIR.

The project site is in the Coast Ranges physiographic province, which is characterized by a series of northwest-to-southeast-trending mountain ranges and valleys. It is situated along the eastern margin of an uplifted ridge whose southern extent includes the Santa Cruz Mountains. Although the topography of the project site vicinity was largely shaped by tectonic deformation, several geologic trends during the period of human occupation have resulted in substantial sedimentary deposition and shoreline change in the vicinity. These trends include eustatic sea-level rise, which resulted in the establishment of widespread tidal flats and tidal marshes in the project site vicinity, and large-scale anthropogenic landscape alterations.

#### 4.4.2.1 Prehistoric Setting

Studies of the archaeology and prehistory of the Bay Area have been taking place since the early 20<sup>th</sup> century. Early investigators, such as Nels Nelson, Max Uhle, W.E. Schenk, and L. Loud, focused primarily on excavating the shell mounds that lined the shores of San Francisco Bay, eventually

investigating and recording more than 425 of them. These investigations were exclusively focused on one resource type (shell mounds) and relied on informal and unsystematic methods.<sup>1</sup> From the early to mid-20<sup>th</sup> century, the role of universities in local archaeological inquiry increased. With this inquiry, the focus on a wider range of resource types increased, and more rigorous and systematic methodologies were adopted. Academic research continues to play a role in archaeological inquiry in the Bay Area. With the adoption of a range of environmental and cultural resource regulations in the mid-20<sup>th</sup> century, including the National Historic Preservation Act, archaeological inquiry in the region has been increasingly driven by regulatory compliance. This work, which is performed by professionally trained and qualified archaeologists, makes up a significant portion of the prehistoric archaeological record in the Bay Area.<sup>2</sup>

The cultural chronology of the Bay Area has been summarized by numerous reviewers.<sup>3,4,5,6,7,8</sup> These summaries have divided the prehistoric cultural sequence into multiple phases or periods, which are delineated by changes in regional patterns of land use, subsistence, and tool types over time. The most recent chronologies encompass a time period that ranges from around 13,500 calibrated years before present (cal BP) to around 170 cal BP. This section uses the prehistoric cultural chronology proposed by Beardsley<sup>9</sup> to help describe patterns in prehistoric cultural development in the Bay Area. The sequence includes four periods, which are identified below. However, these periods are academic constructs and do not necessarily reflect Native American viewpoints.

The following summary presents the prehistory of the Bay Area by the geologic time segments:

- Terminal Pleistocene (13,500–11,600 cal BP)
- Early Holocene (11,600–7700 cal BP)
- Middle Holocene (7700–3800 cal BP)
- Late Holocene (3800 cal BP onward), with further divisions of the Late Holocene based on recent data.

### **Terminal Pleistocene (13,500–11,600 cal BP)**

Traditionally, it was thought that the earliest human inhabitants of North America were highly mobile terrestrial hunters. Commonly referred to as the Clovis, these people used intricate bone and

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<sup>1</sup> Lightfoot, K. and E. Luby. 2002. Late Holocene in the San Francisco Bay Area: Temporal Trends in the Use and Abandonment of Shell Mounds in the East Bay. In *Catalysts to Complexity: The Late Holocene on the California Coast*, edited by J. Erlandson and T. Jones, pp. 263-281. Institute of Archaeology, University of California, Los Angeles.

<sup>2</sup> Morrato, M. J. 1992. CRM in California: Retrospect on 25 Years of Progress. *Proceedings of the Society for California Archaeology*.

<sup>3</sup> Beardsley. 1948. Cultural Sequences in Central California archaeology. *American Antiquity* 14:1–28.

<sup>4</sup> Heizer, R.F. 1941. The Direct-Historical Approach in California Archaeology. *American Antiquity* 7, no. 2.

<sup>5</sup> Heizer, R. F. and F. Fenenga. 1939. Archaeological Horizons in Central California. *American Anthropologist* 41:378-399.

<sup>6</sup> Lillard et al. 1939. An Introduction to the Archaeology of Central California. Sacramento Junior College, Department of Anthropology, Bulletin 2.

<sup>7</sup> Lillard and Purves. 1936. The Archeology of the Deer Creek-Cosumnes Area. California. Sacramento Junior College, Department of Anthropology Bulletin No. 1.

<sup>8</sup> Schenck and Dawson. 1929. Archaeology of the Northern San Joaquin Valley. University of California Publications of American Archaeology and Ethnology 25(4):289–413.

<sup>9</sup> Beardsley. 1948. Cultural Sequences in Central California archaeology. *American Antiquity* 14:1–28.

stone technology. On the West Coast of North America, Clovis assemblages are characterized by a wide but sparse distribution of isolated tools and caches, dated to between 12,800 and 12,500 BP.<sup>10,11</sup> However, over the last few decades, along the western coasts of North and South America, several archaeological sites and sets of human remains have been documented in island and mainland coastal contexts that date to the same period as the Clovis.<sup>12</sup> These discoveries have forced researchers to reconsider how early humans migrated to the Americas and their land use strategies, with a greater emphasis placed on coastal environments.

In the south coastal region of California, the earliest evidence of human occupation has been found on the Channel Islands.<sup>13</sup> For example, in addition to the set of human remains dated to around 13,000 years ago on Santa Rosa Island, an archaeological site dating to around 11,600 cal BP has been documented on San Miguel Island. The site contains numerous fish and shellfish remains, indicating an emphasis on marine resources.<sup>14</sup> Although no archaeological sites from earlier than 5080 BP (Stanford Man) have been documented in the San Francisco Bay Area, it is inferred that the absence of sites is largely a function of long-term trends in sea-level rise, shoreline erosion, and localized subsidence in the region,<sup>15</sup> which are likely to have obscured and/or destroyed early coastal sites with datable materials.

### **Early Holocene (11,600–7700 cal BP)**

The Early Holocene landscape of central California is characterized by semi-mobile hunters and gatherers who exploited a wide range of food resources from marine, lacustrine, and terrestrial contexts.<sup>16</sup> However, the sample of prehistoric archaeological sites in the Bay Area is limited; therefore, it most likely represents an incomplete picture of local prehistoric land use during this period.

The six dated Early Holocene sites in or near the Bay Area consist of two sites at Los Vaqueros Reservoir in the East Bay (CCO-696 and CCO-637), the Blood Alley Site (SCL-178) in the Coyote Narrows of the Santa Clara Valley, SCR-177 at Scott's Valley in the Santa Cruz Mountains, the BART woman (SFR-28), and the Transbay Man (Cartier 1993). All of these sites were recovered from buried terrestrial contexts.<sup>17</sup>

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<sup>10</sup> Meltzer, D. J. 2004. Peopling of North America. In *Developments in Quaternary Science Volume 1, The Quaternary Period in the United States*, A. R. Gillespie, S. C. Porter, and B. F. Atwater (eds.). Elsevier, Amsterdam, The Netherlands.

<sup>11</sup> Erlandson, J. T. Rick, T. Jones, and J. Porcasi. 2007. *One if by Land, Two if by Sea: Who Were the First Californians? In California Prehistory: Colonization, Culture, and Complexity*, Terry L. Jones and Kathryn Klar, pp. 53-62. Altamira Press, Walnut Creek, CA.

<sup>12</sup> Ibid.

<sup>13</sup> Rick, T. C., J. M. Erlandson, and R. L. Vellanoweth. 2001. Paleocoastal Marine Fishing on the Pacific Coast of the Americas: Perspectives from Daisy Cave, California. *American Antiquity* 66:595–614.

<sup>14</sup> Ibid.

<sup>15</sup> Byrd et al. 2010. *Archaeological Research Design and Treatment Plan for the Transit Center District Plan Area, San Francisco, California*. Prepared for R. Dean, Major Environmental Analysis, San Francisco Planning Department, San Francisco, CA.

<sup>16</sup> Erlandson, J. T. Rick, T. Jones, and J. Porcasi. 2007. *One if by Land, Two if by Sea: Who Were the First Californians? In California Prehistory: Colonization, Culture, and Complexity*, Terry L. Jones and Kathryn Klar, pp. 53-62.

<sup>17</sup> Rosenthal, Jeffrey S., and Jack Meyer. 2000. A Middle Holocene Olivella Wall-Bead Assemblage from Central California. *Society for California Archaeology Newsletter* 34(4):27–28.

## Middle Holocene (7700–3800 cal BP)

The Middle Holocene is characterized by a diverse range of habitation sites and artifact assemblages, suggesting higher population levels, more complex adaptive strategies, and longer seasonal occupation compared with the Early Holocene.<sup>18</sup> Several isolated human burials, including two on the San Francisco Peninsula (SFR-28 and SMA-273), have also been dated to the Middle Holocene.<sup>19</sup>

The artifact assemblages include ground stones; side-notched dart points; cobble-based chopping, scraping, and pounding implements; and shell beads and ornaments.<sup>20,21</sup> Type N grooved rectangular *Olivella* beads are present at the San Bruno Mountain mound site (SMA-40) along the eastern edge of San Pablo Bay.<sup>22</sup> These beads are well dated to the Middle Holocene across a large region, from the northwestern Great Basin to San Clemente Island. They indicate the presence of an extensive regional sphere of interaction.<sup>23,24,25</sup>

## Late Holocene (3800–170 cal BP)

The Late Holocene is generally divided into the following five main time slices: Early (4500/3800–2450 cal BP), Early-Middle Transition (2450–2050 cal BP), Middle (2050–900 cal BP), Middle-Late Transition (900–700 cal BP), and Late (700–170 cal BP).

The chronology detailed above includes sites studied from around the greater Bay Area. Although this information is indeed helpful, a closer, more detailed look at the archaeology of the San Francisco Peninsula will inform the current study. By understanding past investigations and the larger context, areas where further data is needed can be identified.

There are more than 200 documented Late Holocene sites in the Bay Area. The Early Period of the Late Holocene marks the establishment of a number of large shell mounds. Several prominent sites along the bay margins, including University Village (SMA-77) and the San Bruno Mound (SMA-40),

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<sup>18</sup> Byrd et al. 2010. Archaeological Research Design and Treatment Plan for the Transit Center District Plan Area, San Francisco, California. Prepared for R. Dean, Major Environmental Analysis, San Francisco Planning Department, San Francisco, CA.

<sup>19</sup> Ibid.

<sup>20</sup> Fitzgerald. 1993. Archaic Milling Cultures of the Southern San Francisco Bay Region. Edited by Gary S. Breschni and Trudy Haversat. *Coyote Press Archives of California Prehistory*, No. 35. Coyote Press, Salinas, CA.

<sup>21</sup> Meyer and Rosenthal. 1998. An Archaeological Investigation of Artifacts and Human Remains from CA-CCO-637, Los Vaqueros APE, Contra Costa County, California. Anthropological Studies Center, Sonoma State University Academic Foundation, Rohnert Park, CA. Submitted to the Contra Costa Water District, Concord, CA. Copies available from Northwest Information Center, Department of Anthropology, Sonoma State University, Rohnert Park, CA.

<sup>22</sup> Clark, M. R. 1998. Evaluative Archaeological Investigations at the San Bruno Mountain Mound Site, CA-SMA-40, South San Francisco, California. Holman and Associates, San Francisco. Submitted to Terrabay Development. Copies available from the Northwest Information Center, Department of Anthropology, Sonoma State University, Rohnert Park, CA.

<sup>23</sup> Byrd, B. and L. M. Raab. 2007. Prehistory of the Southern Bight: Models for a New Millennium. In *California Prehistory: Colonization, Culture, and Complexity*, Terry L. Jones and Kathryn Klar, pp. 215-228. Altamira Press, Walnut Creek, CA.

<sup>24</sup> Vellanoweth, R. L. 2001. AMS Radiocarbon Dating and Shell Bead Chronologies: Middle Holocene Trade and Interaction in Western North America. In *Journal of Archaeological Science* 28:941–950.

<sup>25</sup> Byrd et al. 2010. Archaeological Research Design and Treatment Plan for the Transit Center District Plan Area, San Francisco, California. Prepared for R. Dean, Major Environmental Analysis, San Francisco Planning Department, San Francisco, CA.

have produced particularly early dates, including dates from the end of the Middle Holocene;<sup>26</sup> only one site, SFR-4, is dated to 300 years.<sup>27</sup> These sites have yielded stemmed and short broad-leaf projectile points, square-based knife blades, unshaped and cylindrical mortars, and cylindrical pestles. Burials throughout the Early Period of the Late Holocene were often flexed and frequently contained grave offerings. Grave offerings often included obsidian originating east of the Sierra Nevada and from Napa County,<sup>28</sup> which suggests that an extensive trade network had been established by this time.<sup>29</sup>

The Middle Period of the Late Holocene is characterized by greater settlement permanence (either sedentary or multi-seasonal occupation), mound building, and increased social complexity and ritual elaboration.<sup>30</sup> Some male burials yielded thousands of shell beads. Isotopic analyses of human bone and food remains indicate that terrestrial (faunal) resources were exploited more than shellfish, and the use of the acorn also increased.<sup>31,32,33,34</sup>

#### 4.4.2.2 Ethnographic Setting

The project site was traditionally inhabited by the Urebre people.<sup>35</sup> The Urebre spoke the Ramaytush dialect of the Costanoan language. The Costanoan languages are part of the larger Utian language family, which is part of a larger language family, the Penutian language, with languages and dialects spoken by groups of Native Americans across California, Oregon, and Washington.<sup>36</sup> The territory of the Ohlone

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- <sup>26</sup> Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillette, Viviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson. 2007. Punctuated Culture Change in the San Francisco Bay Area. In *California Prehistory: Colonization, Culture, and Complexity*, Terry L. Jones and Kathryn Klar, pp. 99-123. Altamira Press, Walnut Creek, CA.
- <sup>27</sup> DeGeorgey, A. 2016. Archaeological Research Design and Treatment Plan (ARDTP) Van Ness Corridor Transit Improvement Project. Prepared for San Francisco Municipal Transportation Authority.
- <sup>28</sup> Hughes, R. and R. Milliken. 2007. Prehistoric Material Conveyance. Tidal Marsh, Oak Woodlands, and Cultural Fluorescence in the Southern San Francisco Bay Region. In *California Prehistory: Colonization, Culture, and Complexity*, Terry L. Jones and Kathryn Klar, pp. 259-272. Altamira Press, Walnut Creek, CA.
- <sup>29</sup> Byrd et al. 2010. Archaeological Research Design and Treatment Plan for the Transit Center District Plan Area, San Francisco, California. Prepared for R. Dean, Major Environmental Analysis, San Francisco Planning Department, San Francisco, CA.
- <sup>30</sup> Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillette, Viviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson. 2007. Punctuated Culture Change in the San Francisco Bay Area. In *California Prehistory: Colonization, Culture, and Complexity*, Terry L. Jones and Kathryn Klar, pp. 99-123. Altamira Press, Walnut Creek, CA.
- <sup>31</sup> Bartelink. 2006. Resource Intensification in Precontact Central California: A Bioarchaeological Perspective on Diet and Health Patterns among Hunter-Gatherers from the Lower Sacramento Valley and San Francisco Bay. Ph.D. dissertation, Department of Anthropology, Texas A&M University, College Station, TX.
- <sup>32</sup> Bickel. 1978. Changing Sea Levels along the California Coast: Anthropological Implications. *Journal of California Anthropology* 5(1):6-20.
- <sup>33</sup> Wohlgemuth, E. 2004. The Course of Plant Food Intensification in Native Central California. Ph.D. dissertation, Department of Anthropology, University of California, Davis.
- <sup>34</sup> Byrd et al. 2010. Archaeological Research Design and Treatment Plan for the Transit Center District Plan Area, San Francisco, California. Prepared for R. Dean, Major Environmental Analysis, San Francisco Planning Department, San Francisco, CA.
- <sup>35</sup> Milliken. 1995:24. A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769-1810. Ballena Press Anthropological Papers 43, series editor Thomas C. Blackburn, Novato, CA.
- <sup>36</sup> Callaghan, C. A. 1967. Miwok-Coastanoan as a Subfamily of Penutian. *International Journal of American Linguistics*, Vol. 33, No. 3, pp.224-227. University of Chicago Press.

people, who were referred to as the Costanoans by the Spanish because they lived along the coast, extended from the Golden Gate to just below Carmel. They also occupied several inland valleys.<sup>37</sup>

## Land Use

At the time of contact, South San Francisco was a coastal prairie. The Urebure, a single village group, occupied the San Bruno Creek area south of San Bruno Mountain. Mission records indicate that the “Captain of San Bruno,” said to be from “Urebure and other places,” and 43 villagers were baptized at Mission San Francisco (SFR-B 35,40). By the end of 1785, the group was entirely absorbed into the mission.<sup>38</sup> Lands extending from the present city of Millbrae to the present city of South San Francisco were included in a Mexican land grant patented in 1826.

The Urebure fished in San Bruno and Colma Creek in winter and spring for king salmon and trout, which spawn in fresh water. The coastline would have been a prime area for beach strawberries (*Fragaria chiloensis*) in spring, harbor seals year-round, and oysters, abalone, and macoma in winter.

## Resource Collection

As with other Ohlone tribelets, the Urebure were primarily hunters and gatherers. They hunted terrestrial game, such as mule deer, tule elk, pronged antelope, and mountain lion. Traps were set for smaller game, such as rabbit and quail. Marine resources were hunted along the shores, including sea lions and whales, which were prized for their blubber. Water fowl were a very important part of the tribal diet and trapped along the tidal marshes. Other marine resources, such as salmon, steelhead, school fish, and shellfish, including mussels, were collected and were a major dietary staple. Tule boats were used to collect both saltwater and freshwater marine resources.

The Ohlone also used a wide range of other foods, including various seeds (the growth of which was promoted by controlled burning), buckeye, berries, roots, acorns, nuts, fruits, land and sea mammals, water fowl, reptiles, and insects. The Ohlone used tule balsas for watercraft, bows and arrows, cordage, and bone and ground stone tools to procure and process their foodstuffs.<sup>39,40,41,42</sup>

The primary trading partners of the Ohlone were most likely the Coast Miwok, Pomo groups, and Wappo. Exports from the Ohlone territory included mussels, salt, abalone shells, dried abalone, and *Olivella* shells.<sup>43</sup>

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<sup>37</sup> Levy. 1978:485–486. Costanoan. In *The Handbook of North American Indians Volume 8: California*. Heizer, R.F., Editor. Pp. 485-495. Smithsonian Institution. Washington, D.C.

<sup>38</sup> Milliken, R. T. 1995. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area, 1769–1810*. Ballena Press, Menlo Park, CA.

<sup>39</sup> Levy, R. 1978. Costanoan. In *The Handbook of North American Indians Volume 8: California*. Heizer, R.F., Editor. Pp. 485-495. Smithsonian Institution. Washington, D.C.

<sup>40</sup> Milliken, R. 1995. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769–1810*. Ballena Press. Novato, CA.

<sup>41</sup> Milliken, R. T. 1995. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area, 1769–1810*. Ballena Press, Menlo Park, CA.

<sup>42</sup> Kroeber, A.L. 1925. *Handbook of the Indians of California*. Dover Press. New York, New York.

<sup>43</sup> Levy. 1978:488; 1991:31. Costanoan. In *The Handbook of North American Indians Volume 8: California*. Heizer, R.F., Editor. Pp. 485-495. Smithsonian Institution. Washington, D.C.

## Social Organization

The Ohlone were politically organized by tribelet, with each having a designated territory. A tribelet consisted of one or more villages and camps within a territory that were designated by physiographic features. Primary sources describe tribelets as small groups of people, averaging 60 to 90 individuals, that were located 3 to 5 miles apart. These groups within a territory were often linked by marriage. The office of tribelet chief, which was inherited patrilineally, could be occupied by a man or a woman. If there was no son to inherit the position, a sister or daughter would assume the position. Duties of the chief included providing for visitors, directing ceremonial activities, and leading fishing, hunting, gathering, and warfare expeditions. The chief served as the leader of a council of elders, which functioned primarily in an advisory capacity to the community.

Tribelets consisted of several households, which averaged 10 to 15 individuals and were grouped into clans and moieties. The extended family was included in these households, which were divided patrilineally. Marriage was informal, with only an exchange of a small gift from the groom's family to the bride's family. Marriage often occurred between neighboring tribes and was used as a means to resolve conflict. After the union, the couple was absorbed into the family group of the groom's father. There is some ethnographic evidence of polygynous family groups, with multiple wives and their children living together. If a couple split up, the children would stay with the mother.<sup>44,45,46</sup>

Family households would host dances, assist with inter-tribelet resource collection and land management, and come together to defend their territory. Most of the year, households shared a single village location, but at other times, groups would disperse to satellite villages. This was often for resource extraction during seasonal changes. Trade feasts were held when households found themselves with a surplus of resources and called together neighbors for a social and ceremonial gathering. These trade feasts served to redistribute wealth as well as a way for groups across different regions to socialize and trade goods.<sup>47</sup>

As stated above, a single tribelet, comprising patrilineal family groups, would occupy a village location at different times of the year. Ohlone villages in the Late Period of the Late Holocene typically had four types of structures. Dwellings were generally domed structures with central hearths. They were thatched with tule, grass, or other vegetal material and bound with willow withes. Permanent settlements were usually placed away from the ocean shore, on high ground. Sweathouses were used by men and women and usually located along streambanks. A sweathouse consisted of a pit that was excavated into the streambank, with a thatched portion constructed against the bank. Dance structures were circular or oval in plan and enclosed by a woven fence of brush or laurel branches, standing approximately 5 feet high. These structures would have one

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<sup>44</sup> Harrington, J. P. (cited in Levy, 1978). 1921. *Chochenyo Fieldnotes*. Manuscript in Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley; Levy, R. 1978. Costanoan. In *California*, pages 486 and 487. Handbook of North American Indians, Volume 8. R. F. Heizer (ed.). Smithsonian Institution, Washington, D.C.

<sup>45</sup> Levy. 1978:490. Costanoan. In *The Handbook of North American Indians Volume 8: California*. Heizer, R.F., Editor. Pp. 485-495. Smithsonian Institution. Washington, D.C.

<sup>46</sup> Milliken. 1995:20–23. A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769–1810. Ballena Press Anthropological Papers 43, series editor Thomas C. Blackburn, Novato, CA.

<sup>47</sup> Ibid., pp. 21–24. A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769–1810. Ballena Press Anthropological Papers 43, series editor Thomas C. Blackburn, Novato, CA.

doorway, with a smaller opening directly opposite. The assembly house was a thatched dome structure that was large enough to accommodate all of the inhabitants of the village.<sup>48</sup>

## From Contact to the Present

On November 4, 1769, a Spanish expedition led by Gaspàr de Portolà crossed the Coast Ranges on its way north from Monterey. This party encountered the first group of native Bay Area peoples at the village of Ssalson (near modern day San Mateo). According to Juan de Crespi, a diarist, this meeting was amicable, and the people of Ssalson took them into their village and feasted with them.<sup>49</sup>

On August 6, 1775, the Spanish ship *San Carlos* sailed into San Francisco Bay and anchored between what is today Richardson Bay and Angel Island. The ship, commanded by Juan Manuel de Ayala, carried 30 men who were there to chart the bay. The Huimen, in what is modern-day Marin County, observed the ships and would eventually meet the party. Up until this point, the only Spanish expeditions the native people of the Bay Area encountered were on foot or horseback and stayed only for a couple days. The *San Carlos* was the first ship to sail into the San Francisco Bay; it anchored for 1 month.<sup>50</sup>

In June 1776, almost 1 year after the *San Carlos* entered San Francisco Bay, an expedition arrived to establish a mission on the San Francisco Peninsula. Father Francisco Palòu led the expedition of soldiers, settlers, and missionary priests. The expedition encountered the Yelamu on June 27, 1776, near what is thought to be the seasonal village of Chutchui, slightly inland from the shore. Soon after the Spanish set up their encampment, the Yelamu were attacked by the Ssalson and fled to the coast and across the bay to the east. Soon after this incident, violence broke out between the Yelamu and the Spaniards. A Yelamu man offended a Spanish soldier by attempting to kiss his wife. This man was ordered to be arrested and flogged the same day. His two companions fled, although, the following day, they were tracked down by Spanish soldiers and one was shot. This altercation could have been a defining moment in the Spanish assertion of power over the local community.<sup>51</sup>

Seven Spanish missions were founded in Ohlone territory from 1776 to 1797. Mission San Francisco was established within Yelamu territory. The first baptisms at the mission were of three young Yelamu men on June 24, 1776. One of the fathers noted that the Yelamu were attracted by presents and “other inducements.” By 1780, most of the Yelamu under the age of 20 were baptized at Mission San Francisco. Slowly, older married couples joined the young people. Although it did not appear to be a forcible entry into mission life, strife with neighboring tribes may have caused extenuating circumstances. Most of the young men baptized at Mission San Francisco had fathers who had been killed in fights with the Ssalson.<sup>52</sup> Once neophytes were inducted into mission life, there was no leaving. If newly baptized neophytes decided they wanted to return to their old way of life, they were considered runaways. Runaways were tracked down and forcibly returned to the missions.

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<sup>48</sup> Crespi. 1927. *Missionary Explorer on the Pacific Coast 1769–1774*. H. E. Bolton, editor and translator. Berkeley, CA: University of California Press. (Reprinted: AMS Press, New York, 1971).

<sup>49</sup> Milliken. 1995:32. *A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769–1810*. Ballena Press Anthropological Papers 43, series editor Thomas C. Blackburn, Novato, CA.

<sup>50</sup> Ibid., pp. 40–42. *A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769–1810*. Ballena Press Anthropological Papers 43, series editor Thomas C. Blackburn, Novato, CA.

<sup>51</sup> Ibid., pp. 63–65. *A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769–1810*. Ballena Press Anthropological Papers 43, series editor Thomas C. Blackburn, Novato, CA.

<sup>52</sup> Ibid., pp. 93–96. *A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769–1810*. Ballena Press Anthropological Papers 43, series editor Thomas C. Blackburn, Novato, CA.

While living within the mission system, the Ohlone commingled with other groups, including the Esselen, Yokuts, Miwok, and Patwin. Mission life was devastating to the Ohlone population.<sup>53</sup> By the time of secularization of the California missions, the Ohlone population numbered less than 2,000 as a result of disease, harsh living conditions, and reduced birth rates.<sup>54</sup>

Under the Mexican government, secularization of the mission lands began in earnest in 1834. The indigenous population scattered away from the mission centers, and the few that were given rancherias from the mission lands were ill equipped to maintain or work their land. Most of the former mission land was divided among loyal Mexican subjects, and the Ohlone who chose to remain in their ancestral territory usually became squatters. Some were given jobs as manual laborers or domestic servants on Mexican ranchos or, later, American cattle ranches. During the next few decades, there was a partial return to aboriginal religious practices, particularly shamanism, and some return to food collection as a means of subsistence.<sup>55</sup> Consequently, several multi-ethnic Indian communities (consisting of individuals of Chochenyo, Plains Miwok, Northern Valley Yokuts, Patwin, and/or Coast Miwok descent) were established in the mid-19th century within Ohlone territory.<sup>56</sup>

Ohlone recognition and assertion began to move to the forefront during the early 20<sup>th</sup> century. Two law suits were brought against the U.S. government by the Indians of California (1928–1964) for reparation due them for the loss of traditional lands. Anthropologists, historians, and Indians were consulted regarding the nature of traditional land holding. A review of what was known about Indians in the state of California commenced. The political organizing necessary to mount this action on the part of Indians of California led to the formation of political advocacy groups throughout the state. The Ohlone participated, and a new roll of descendants was established, bringing a new focus on the community and re-evaluation of rights due its members.<sup>57</sup>

Although they have yet to receive formal recognition from the federal government, the Ohlone are becoming increasingly organized as a political unit and have developed an active interest in preserving their ancestral heritage. In the later part of 20<sup>th</sup> century, the Galvan family of Mission San José worked closely with the American Indian Historical Society and successfully prevented destruction of a mission cemetery that lay in the path of a proposed freeway. These descendants incorporated as the Ohlone Indian Tribe and now hold title to the Ohlone Indian Cemetery in

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<sup>53</sup> Milliken. 1995. *A Time of Little Choice: The Disintegration of the Tribal Culture in the San Francisco Bay Area, 1769–1810*. Ballena Press Anthropological Papers 43, series editor Thomas C. Blackburn, Novato, CA.

<sup>54</sup> Cook. 1943a. *The Conflict between the California Indians and White Civilization, I: The Indian Versus the Spanish Mission*. *Ibero-Americana*. 21. Berkeley, CA.; Cook, 1943b. *The Conflict between the California Indians and White Civilization, II: The Physical and Demographic Reaction of the Non-Mission Indians in Colonial and Provincial California*. *Ibero-Americana*. 22. Berkeley, CA.

<sup>55</sup> Harrington, J. P. (cited in Levy, 1978). 1921. *Chochenyo Fieldnotes*. Manuscript in Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley; Levy, R. 1978. Costanoan. In *California*, pages 486 and 487. *Handbook of North American Indians*, Volume 8. R. F. Heizer (ed.). Smithsonian Institution, Washington, D.C.

<sup>56</sup> Levy. 1978:487. Costanoan. In *The Handbook of North American Indians Volume 8: California*. Heizer, R.F., Editor. Pp. 485-495. Smithsonian Institution. Washington, D.C..

<sup>57</sup> Bean, L.J. 1994. *The Ohlone Past and Present: Native Americans of the San Francisco Bay Region*. Ballena Press. Novato, California.

Fremont.<sup>58</sup> The descendants are active in maintaining their traditions and advocating for Native American issues.

#### 4.4.2.3 Historical Setting

##### Industrial Origins

As part of the Mexican Governments redistribution of land, which occurred after the Spanish Period, Senor Don José Sanchez was granted Rancho Buri in 1835. This 14,639-acre rancho was located in what is today South San Francisco. Over the next 20 years, the acreage changed hands several times, until Charles Lux purchased the rancho in 1856 to graze cattle. Lux built a country home for his family and would move his cattle from the prime grazing land up to San Francisco along El Camino Real. After Lux's death in 1890, the rancho was sold to successful Omaha meat packer Gustavus Swift, who designated the land as South San Francisco.<sup>59</sup>

Before Swift bought the rancho, the majority of San Francisco's meat came from within the city itself. Butchertown was located near Islais Creek in what is today the Bay View neighborhood.<sup>60</sup> With San Francisco's population expanding exponentially, both residential communities and the health department pressured Butchertown to find a new location for its operations. Lux land appeared to be the best location—far enough away from downtown San Francisco to avoid offense and close enough to the shoreline to keep things sanitary.<sup>61</sup> Tanneries, wool pulleries, and fertilizer plants popped up to take advantage of the by-products of the slaughterhouses.<sup>62</sup>

Lux's meatpacking business and associated industries were incorporated into Western Meat, a company headed by Swift. It was at this time that Swift began to focus on promoting the city of South San Francisco as a home for emerging industries. As a result, South San Francisco was deemed "The Industrial City."<sup>63,64</sup>

##### Steel and Manufacturing

Beginning in the mid-1890s, South San Francisco developed businesses that produced construction materials.<sup>65</sup> Further construction-related businesses soon emerged, such as steel and metal foundries, which supplied needed materials to San Francisco as it rebuilt following the 1906 earthquake.<sup>66,67</sup> In 1907, completion of the 9.8-mile-long Southern Pacific Railroad (SPRR) Bayshore Cutoff connected South San Francisco's industrial yards to San Francisco markets to the north.

<sup>58</sup> Yamane, Linda G. (cited in Bean, 1994). 1994. Costanoan/Ohlone. In *Native America in the Twentieth Century: An Encyclopedia*, pages 143 and 144. Mary B. David (ed.). Garland Publishing, Inc., New York and London; Bean, L. J. 1994. *The Ohlone: Past and Present*, page xxiv. Ballena Press Anthropological Papers No. 42. Ballena Press, Menlo Park, CA.

<sup>59</sup> Blum, J. 1984. South San Francisco: The Making of an Industrial City. In *California History* 63(2):114–134

<sup>60</sup> Blum, J. 1984. South San Francisco: The Making of an Industrial City. In *California History* 63(2):114–134

<sup>61</sup> Blum, J. 1984. South San Francisco: The Making of an Industrial City. In *California History* 63(2):114–134.

<sup>62</sup> Ibid., pp. 120–123.

<sup>63</sup> Ibid., pp. 119–134.

<sup>64</sup> Blum, J. 1984. South San Francisco: The Making of an Industrial City. In *California History* 63(2):114–134

<sup>65</sup> Bamburg, B.L. n.d. *South San Francisco Historic Preservation Survey, 1985–1986: A Comprehensive Study of History and Architecture*. City of South San Francisco: CA.

<sup>66</sup> Blum, J. 1984. South San Francisco: The Making of an Industrial City. In *California History* 63(2).

<sup>67</sup> City of South San Francisco. 2020. *Historic Articles: General History*. Available: <https://www.ssf.net/our-city/about-south-san-francisco/history/historical-articles>. Accessed: June 23, 2020.

The Selby Smelting and Lead Company's purchase of land on San Bruno Point raised concerns of pollution from South San Francisco landowners, prompting San Mateo County to pass an ordinance against smelting within county lines. In turn, South San Francisco incorporated in 1908, exempting the city from the ordinance and allowing heavy industrial development to rapidly expand.<sup>68</sup> In 1923, it installed a sign on Signal Hill that read, "SOUTH SAN FRANCISCO, THE INDUSTRIAL CITY"; in 1929, it replaced the sign with 60-foot-high concrete letters.<sup>69</sup>

The steel, metals, and materials industries received a boost from defense spending during both world wars but particularly during World War II. In 1943, Bethlehem Steel was hiring mill helpers, hearth stockers, and yard laborers in support of the war effort at its South San Francisco plant.<sup>70</sup> Some non-defense-related metal and manufacturing employers, such as American Brake Shoe, saw growth as well, others, such as Poetsch & Peterson (located within the Specific Plan area, see **Appendix 4.4-1**), experienced difficulties because of war-time embargos on materials.

With South San Francisco's population doubling as defense workers poured into the City, the federal government built temporary housing at several locations. The developments were cheaply constructed and densely packed. Lindenville, a 720-unit development for 4,200 people, was constructed between Victory and Railroad Avenues as a series of barracks-like row units just north of the Project site.<sup>71,72</sup>

At the conclusion of World War II, suburbanization in California increased demand for metals, concrete, lumber, and other building materials. Vannucci Brothers Concrete Construction Company maintained a South San Francisco office (located within the Specific Plan Area, see **Appendix 4.4-1**) and supplied concrete for the development of California's massive freeway system.<sup>73</sup> In 1955, when Governor Goodwin Knight presented the "Man of Industry" award in front of 400 civic and industrial leaders he said, "For better or for worse, San Mateo County has made its choice for industry. You have voted to see smoke stacks rather than geraniums."<sup>74</sup> However, his choice of recipient—M.W. Reece, vice president of South San Francisco's Reinhold Chemical Corporation—illustrated a transition away from the smoke stacks that had defined the city through the war era and toward the emergence of light industry (i.e., distribution centers, office parks, chemical suppliers), as well as distribution business connected to San Francisco International Airport, which was constructed to the east of the Project Site in 1953.<sup>75</sup> By the 1960s, heavy industry in South San Francisco was winding down and in 1981, the Bethlehem Steel building was demolished.<sup>76</sup>

<sup>68</sup> Blum, J. 1984. South San Francisco: The Making of an Industrial City. In *California History* 63(2).

<sup>69</sup> Bamburg, B.L. n.d. *South San Francisco Historic Preservation Survey, 1985–1986: A Comprehensive Study of History and Architecture*. City of South San Francisco: CA.

<sup>70</sup> *San Francisco Examiner*. 1943. "Help Wanted." July 11, p. 39. San Francisco, CA.

<sup>71</sup> Bamburg, B.L. n.d. *South San Francisco Historic Preservation Survey, 1985–1986: A Comprehensive Study of History and Architecture*. City of South San Francisco: CA.

<sup>72</sup> Kiouss, J. n.d. Lindenville. Available: <https://www.ssf.net/our-city/about-south-san-francisco/history/historical-articles>. Accessed: June 23, 2020.

<sup>73</sup> *San Francisco Examiner*. 1966. "Lawrence Vannucci at 77." January 16, p. 56. San Francisco, CA.

<sup>74</sup> *The Times*. 1955. "\$75,000 Fire Razes SSF Chemical Plant." June 12, p. 1. San Mateo, CA.

<sup>75</sup> City of South San Francisco. 2020. *Historic Articles: General History*. Available: <https://www.ssf.net/our-city/about-south-san-francisco/history/historical-articles>. Accessed: June 23, 2020.

<sup>76</sup> Ibid.

## Chemical Industry

South San Francisco's chemical industry began concurrent developing in the mid-1930s. In 1935, the South San Francisco Land and Improvement Company won out against Los Angeles County and enticed the E.I. du Pont de Nemours Company to purchase a 7-acre area on Linden Avenue to construct a varnish and lacquer plant,<sup>77</sup> which was completed by 1940 (within the Specific Plan area, see **Appendix 4.4-1**). Other chemical corporation followed suit and set up shop in South San Francisco. Following World War II, many of the light industry and chemical businesses located in Bay View continued to relocate to South San Francisco to take advantage of the large industrial yards that were newly available in the post-war era. The postwar boom brought a demand for chemical products used in consumer products such as cars, ships, and refrigerators.<sup>78</sup> In 1958, South San Francisco reported a record year for industrial building permits, doubling the previous year's number.<sup>79</sup> E.F. Houghton & Company opened its 300,000-square-foot manufacturing plant, laboratory, office building, and storage yard at 54 Tanforan Avenue in 1960 (within the Specific Plan area, see **Appendix 4.4-1**) and was soon launching a new line of aluminum lubricants.<sup>80,81</sup> By the mid-1970s, E.F. Houghton & Company was hiring local chemistry and physics graduates and becoming something of an industry thought-leader, employing Gerald Loeb, the "Wizard of Wall Street," a financial author credited with predicting the 1929 stock market crash, as a senior consultant.<sup>82</sup> Gamlen Chemical expanded operations in the City during the 1970s, constructing a two-story, 7,200-square-foot international headquarters building that would house its technical, customer service, and electronic data processing staff<sup>83</sup> and later expanding its central marketing and development operations.<sup>84</sup> The chemical industry took a further turn in the 1970s when Robert Swanson and Dr. Herbert Boyer founded Genentech, spurring new development in the biotech and pharmaceutical industries, which would further shape the City's future.

### 4.4.2.4 Existing Setting

#### Surrounding Area

##### Built Environment

Buildings and structures located adjacent to the project site include different building types and uses. The Shops at Tanforan (a retail shopping center) was built c. 1971 to the west of the project site, across South Maple Avenue in the City of San Bruno on the site of the former Tanforan Detention Camp (P-41-000207, CHL No. 934; see below for further discussion). Mixed industrial and commercial development is located north and east of the project site, with construction dates that span the 20<sup>th</sup> century. A SPRR branch line runs in a north-south alignment along South Linden Avenue and Dollar Avenue west of the project site. The tracks appear to have been constructed c. 1907; they were evaluated for historical significance in 2019 and determined to be not eligible as a

<sup>77</sup> *San Francisco Examiner*. 1943. "Help Wanted." July 11, p. 4. San Francisco, CA.

<sup>78</sup> *The Times*. 1949. "DuPont Plans SSF Expansion." April 1, p. 4. San Mateo, CA.

<sup>79</sup> *The Times*. 1958. "Building in S.S.F. Heads For Record." August 12, p. 15. San Mateo, CA.

<sup>80</sup> *The Times*. 1960. "S.S.F. Opening New Company." April 23, p. 11. San Mateo, CA.

<sup>81</sup> *The Times*. 1963. "New Product for S.S.F. Firm." August 26, p. 24. San Mateo, CA.

<sup>82</sup> *The Times*. 1972a. "Companies Told to Push Negative." April 24, p. 21. San Mateo, CA.

<sup>83</sup> *The Times*. 1972b. "New Headquarters Started." April 24, p. 21. San Mateo, CA.

<sup>84</sup> *The Times*. 1975. "Gamlen Chemical Expands." January 24, p. 25. San Mateo, CA.

historical resource under the California Environmental Quality Act (CEQA).<sup>85</sup> Residential development is located south of project site, on the south side of Tanforan Avenue, comprised of single-family homes; that area was largely constructed in the 1940s.<sup>86</sup>

As discussed in Section 4.4.2.3, *Historical Setting*, South San Francisco is recognized and embraced as the Industrial City, and the project area is characterized by industrial development. Although the City has not designated a historic district related to its industrial development and heritage, the potential exists for such a district to be present. Accordingly, a Potential Historic District Preliminary Assessment was prepared and is included in **Appendix 4.4-2**. The purpose of the Potential Historic District Preliminary Assessment is to provide sufficient information to inform the analysis in this EIR; it does not constitute a complete historic district evaluation, which would be beyond the scope of information required to evaluate the project's potential impacts. The City retains discretion as to whether it will proceed with further analysis at a future date, unrelated to the project. To provide for conservative analysis, this EIR assumes that a potential historic district exists and concludes that the boundary of that potential district includes the Specific Plan area, as further described below.

The Potential Historic District Preliminary Assessment identifies broad parameters for the potential historic district, including a potential district area, a period of significance, and a list of typical industrial building types that may contribute to the potential district. As described and shown in Section D.1 in the Potential Historic District Preliminary Assessment (**Appendix 4.4-2**), the potential historic district area is expansive. Roughly 1,840 acres, it is concentrated on the east side of South San Francisco and includes the area east of U.S. 101 (including San Bruno and Oyster Points), the Lindenville Planning Sub-Area (the area of the project site), and the San Francisco International Airport area. Recognizing that the character of the potential district area varies greatly on either side of the U.S. 101 freeway, the area has been further divided into Zone 1, located west of the freeway and totaling approximately 470 acres, and Zone 2, located east of the freeway and totaling approximately 1,370 acres (refer to Figure 1 in **Appendix 4.4-2**). The Specific Plan area is located in Zone 1.

As shown in **Figure 4.4-1, p. X**, the Specific Plan area and most of the off-site improvements (not including those located in San Bruno) are within the potential district area. Eleven of the sixteen extant buildings located within the Specific Plan area meet the potential district parameters, as described below. The exact boundary, size, and number and locations of contributing properties within the potential historic district are unknown; a complete historic district evaluation would be required to identify these features. However, because the Potential Historic District Preliminary Assessment concludes that the Specific Plan area is located within the potential historic district area, the preliminary information regarding boundary and size is sufficient to evaluate the project's potential impacts related to development in that area. The period of significance is defined as 1890-1978. Properties that contribute to the district would exhibit physical characteristics that are typical of industrial development in the region. For further description of the potential historic district, refer to **Appendix 4.4-2**.

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<sup>85</sup> JRP. 2019. *Southern Pacific Railroad, San Francisco to Gilroy DPRs for the FJ HSR. California High-Speed Rail Historical Architectural Survey Report: San Francisco to San Jose*.

<sup>86</sup> ParcelQuest. 2020. 160 South Linden Avenue, South San Francisco, CA 94080. Available: <https://www.parcelquest.com/>. Accessed: July 1, 2020.

## Archaeological Resources

As described above in Section 4.4.2.1, *Prehistoric Setting*, and Section 4.4.2.2, *Ethnographic Setting*, the greater San Francisco Bay region has been subject to human habitation for millennia. The project site's location in proximity to freshwater streams and the San Francisco Bay suggests a high likelihood for the presence of prehistoric resources.

To understand the level of archaeological study that has occurred in the vicinity of the project site, and to collect information regarding previously recorded archaeological resources, a records search was conducted through the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) on June 16, 2020. The records search looked at previously conducted cultural resources studies and previously recorded archaeological resources both within a 0.25-mile radius of the project site. The records search identified 17 previous cultural resources studies that were conducted within 0.25 mile of the project site, including two studies within the project site. The records search concluded that there are no known cultural resources within the project site.

Three archaeological resources have been previously identified outside of the project site but within 0.25 mile, as shown in **Table 4.4-1, p. 4.4-14**; none of these resources have been identified as tribal cultural resources. Two of these previously identified archaeological resources, P-41-000048 (CA-SMA-44) and P-41-000051 (CA-SMA-47), are prehistoric shell midden sites, and one, P-41-000207, consists of the Tanforan Detention Camp.

**Table 4.4-1. Previously Identified Cultural Resources within 0.25 Mile of the Project Site**

P-Number	Trinomial	Description	Evaluated for Eligibility for listing to the CRHR or NRHP?	Distance from Project Site	Within Project Site?
P-41-000048	CA-SMA-44	Nelson shellmound 383	No	1,200 feet northwest	No
P-41-000051	CA-SMA-47	Nelson shellmound 386	No	550 feet northeast	No
P-41-000207	n/a	This resource consists of the Tanforan Detention Camp. The Tanforan Detention Camp was one of 12 temporary detention camps in California that were established for the mass imprisonment of Americans of Japanese descent, pursuant to Executive Order 9066, February 19, 1942. Originally a racetrack, the stables at Tanforan were converted into makeshift homes for 8,033 California residents. The detention center operated from April 1942 until October 1942.	Yes; California Registered Landmark (No. 934)	250 feet southwest	No

Source: Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS), 2020.

Notes:

CRHR = California Register of Historical Resources

NRHP = National Register of Historic Places

The Tanforan Detention Camp (non-extant) site is located approximately 250 feet southwest of the project site and was designated a California Historical Landmark in 1980 (No. 934). This landmark includes the entire property of what was once the Tanforan Racetrack. The Tanforan Racetrack operated as a detention center used to imprison Americans of Japanese descent during World War II. The detention center was operational from April to October 1942.<sup>87</sup> The Tanforan Shopping Center, which currently occupies the site, was built in 1971. A California Historical Landmark Plaque and small garden now stand at the Tanforan Shopping Center to memorialize the site's history.

## Project Site

### Built Environment

As described in the Chapter 3, *Project Description*, of this EIR, the 33-acre project site is comprised of the 26.5-acre Specific Plan area and the off-site improvement areas, which total 6.4 acres. The Specific Plan area is located at the intersection of South Maple Avenue and Tanforan Avenue, adjacent to the City of San Bruno. The Specific Plan area is located approximately 0.1 mile from the San Bruno Bay Area Rapid Transit (BART) station and the co-located SamTrans Transit Center, approximately 0.75 mile from the San Bruno Caltrain station, and approximately 1.5 miles from the South San Francisco Caltrain station.

The Specific Plan area occupies an irregular footprint bounded by South Maple Avenue, South Linden Avenue, Dollar Avenue, and Tanforan Avenue. It encompasses seven parcels, including Assessor's Parcel Numbers (APNs) 014-250-090, 014-250-080, 014-250-050, 014-241-030, 014-241-040, 014-232-030, and 014-232-050. The Specific Plan area is occupied by existing and vacant industrial uses and surface parking. Six of the parcels contain a total of 16 buildings and/or structures, 11 of which were constructed more than 45 years ago. The seventh parcel is a vacant former right-of-way that formerly contained an SPRR spur. A summary of the properties located within the Specific Plan area is included in **Table 3-1** in Chapter 3, *Project Description*, of this EIR. None of the buildings associated with the parcels within the Specific Plan area are included within the South San Francisco Historic Preservation Survey 1985–1986 or listed in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR).

Because several of the buildings and structures on the Specific Plan area are 45 years or older, ICF completed DPR 523A, 523B, or 523L forms (**Appendix 4.4-1**) for each parcel to record and evaluate its historical significance and eligibility for the CRHR, as defined in Section 4.4.3.2. Based on the evaluations and analysis attached in **Appendix 4.4-1**, none of the buildings and structures located within the Specific Plan area individually meet CEQA's definition of a historical resource.

However, as discussed above, the Specific Plan area is located within the potential historic district. Applying the parameters identified in the Potential Historic District Preliminary Assessment (**Appendix 4.4-2**) to the buildings and structures within the Specific Plan area, eleven of the sixteen extant buildings fall within the potential district parameters. These buildings, listed in **Table 4.4-2, p. 4.4-16**, were originally constructed between 1890 and 1978, exhibit physical characteristics that are aligned with industrial building forms, and are located within the boundaries of the potential historic district area. Therefore, these buildings have the potential to contribute to a historic district and are considered historical resources under CEQA for purposes of analyzing the project's potential impacts.

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<sup>87</sup> Kagawa. 1980. Site record for P-41-000207. On file at the Northwest Information Center, Rohnert Park, CA.

**Table 4.4-2. Potential Historic District Contributors within the Specific Plan Area**

APN	Address	Use Type	Location on Parcel	Year Built
014-250-090	30 Tanforan Ave.*	Administrative office	Southwest corner	1963
	40 Tanforan Ave.*	Industrial warehouse	Center	c. 1956
	347 S. Maple Ave.	Industrial warehouse	Northeast corner	c. 1965
	349 S. Maple Ave.	Industrial warehouse	Northeast corner	1959
014-250-080	50 Tanforan Ave.*	Industrial warehouse	West boundary	1959
014-250-050	54 Tanforan Ave.*	Industrial warehouse	Center	c. 1943
014-241-030	240 Dollar Ave.*	Industrial factory	Center	c. 1943/ 1956/1965
	180 Linden Ave.*	Industrial warehouse	West boundary	1956/1982
014-241-040	160 S. Linden Ave.*	Chemical plant	Southeast corner	1940/1958
	160 S. Linden Ave.*	Ancillary building	Southeast corner	c. 1940
	325 S. Maple Ave.	Industrial warehouse	Southwest corner	1946/1957

\* Property addresses marked with an asterisk symbol are located partially or fully within the Phase 1 site.

The off-site improvement areas consist of rights-of-way and easements located in the cities of South San Francisco and San Bruno, and within BART's jurisdiction. The off-site improvement areas are developed with circulation and utility infrastructure and do not contain any buildings or structures. No known cultural resources are located within the off-site improvement areas.

### Archaeological Resources

As discussed above, the records search conducted for the project site concluded that there are no known cultural resources within the project site.

### Phase 1 Site

The 11.93-acre Phase 1 site includes approximately nine existing buildings on five parcels, all of which are located within the Specific Plan area. Existing buildings that intersect partially or fully within the Phase 1 site are identified with an asterisk in **Table 3-1** in Chapter 3, *Project Description*, of this EIR. As shown in **Table 4.4-2, p.4.4-16**, eight of the 11 buildings that have been identified as potential contributors to the potential historic district are located within the Phase 1 site. The Phase 1 site also includes most of the off-site improvement areas within the Project Site, with the exception of the Maple Avenue improvements north of the proposed intersection with Southline Avenue. As noted above, no buildings or structures are located within the off-site improvement areas. Additionally, no known cultural resources are located on the Phase 1 site.

### Conclusion

No known archaeological resources or individual built resources are located within the project site. Eleven of the sixteen buildings located within the Specific Plan area, eight of which are located on the Phase 1 site, have the potential to contribute to a potential historic district relating to the city's industrial heritage, and are therefore considered historical resources under CEQA.

### 4.4.3 Regulatory Framework

This section provides a summary of the cultural resources plans and policies of federal, state, and local agencies that have policy and regulatory control over the project site.

#### 4.4.3.1 Federal

The sections below summarize the relevant federal regulations and guidelines.

##### **National Historic Preservation Act and National Register of Historic Places**

Archaeological resources are protected through the National Historic Preservation Act (16 United States Code 470f), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979. Section 106 of the National Historic Preservation Act requires project review for effects on historical properties only when projects involve federal funding or permitting or occur on federal land; therefore, it is not applicable to discretionary actions on privately owned land at the municipal level. However, the National Historic Preservation Act establishes the NRHP, which provides a framework for resource evaluation and informs the process of determining impacts on historical resources under CEQA.

The NRHP is the nation's official comprehensive inventory of historical resources. Administered by the National Park Service, the NRHP includes buildings, structures, sites, objects, and districts that possess historical, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Typically, a resource that is more than 50 years of age is eligible for listing in the NRHP if it meets any one of the four eligibility criteria *and* also retains sufficient historical integrity. A resource less than 50 years old may be eligible if it can be demonstrated that it is of "exceptional importance" or a contributor to a historical district. NRHP criteria are defined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation* and listed below:

- A. Properties that are associated with events that have made a significant contribution to the broad patterns of our history.
- B. Properties that are associated with the lives of persons significant in our past.
- C. Properties that embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction.
- D. Properties that have yielded, or may be likely to yield, information important in prehistory or history.

Properties that are listed in the NRHP, as well as properties that are formally determined to be eligible for listing in the NRHP, are automatically listed in the CRHR and, therefore, considered historical resources under CEQA.

#### 4.4.3.2 State

##### **California Public Resources Code and related California Register of Historical Resources Administration**

Cultural resources, including archaeological and historical sites, are protected pursuant to a wide variety of state policies and regulations, as enumerated under the California Public Resources Code

(PRC). Cultural resources are recognized as nonrenewable resources and receive additional protection under the California PRC and CEQA. The following California PRC sections are applicable to the project:

- California PRC Sections 5020–5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the CRHR and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.
- California PRC Sections 5079–5079.65 define the functions and duties of the Office of Historic Preservation (OHP). The OHP is responsible for the administration of federally and state-mandated historic preservation programs in California and the California Heritage Fund.
- California PRC Sections 5097.9–5097.991 provide protection to Native American historical and cultural resources and sacred sites and identify the powers and duties of the Native American Heritage Commission (NAHC). These sections also require notification to descendants of discoveries of Native American human remains and provide for treatment and disposition of human remains and associated grave goods. See Section 4.16, *Tribal Cultural Resources*, for more detail.

### California Environmental Quality Act

CEQA requires projects to be assessed to determine their potential to affect historical resources. CEQA uses the term *historical resources* to include buildings, sites, structures, objects, or districts, which may have historical, pre-historical, architectural, archaeological, cultural, or scientific importance. If implementation of a project would result in significant effects on historical resources, CEQA states that alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (14 California Code of Regulations [CCR] 15064.5, 15126.4). Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined.

The State CEQA Guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review.

1. The resource is listed in or determined eligible for listing in the CRHR (as described below).
2. The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the California PRC or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the California PRC, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. The lead agency determines the resource to be significant, as supported by substantial evidence in light of the whole record (CCR, Title 14, Division 6, Chapter 3, Section 15064.5[a]).

The CEQA Guidelines also establish the criteria for CRHR eligibility as the standard for the significance of historical resources and find that cultural resources that meet the criteria of eligibility for the CRHR are significant historical resources. A historical resource may be eligible for inclusion in the CRHR if it meets any of the following conditions:

1. The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. The resource is associated with the lives of persons important in our past.

3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual or possesses high artistic values.
4. The resource has yielded, or may be likely to yield, information important in prehistory or history.

Properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR (PRC Section 5024.1[d][1]) and, thus, are significant historical resources for the purpose of CEQA. Previously unidentified and identified or known cultural resources within the project site will be evaluated per the CRHR criteria (as needed) for eligibility in order to determine if the resource is significant on a state level.

Pursuant to CEQA Guideline Section 15064.5(c)(4), a historical resource that has not been formally evaluated for eligibility for listing to a local or state register does not preclude the lead agency from assuming the resource is a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

According to CEQA, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant impact on the environment (14 CCR 15064.5[b]). Under CEQA, a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter the physical characteristics that convey the property's historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meets the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Treatment of cultural resources under CEQA requires the evaluation of resources in a project's area of potential affect, assessment of potential impacts on significant or unique resources, and development of mitigation measures for potentially significant impacts, which may include monitoring, combined with data recovery and/or avoidance.

## **Treatment of Human Remains**

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code (CHSC) Section 7050.5. Specifically, remains suspected to be Native American are regulated under CEQA at CCR Section 15064.5(d)-(e). Public Resources Code Section 5097.98 establishes the process to be followed in the event that remains are discovered. If human remains are discovered during construction, no further disturbance to the site shall occur, and the County Coroner must be notified (CCR 15064.5 and Public Resources Code 5097.98).

## **Assembly Bill 52**

Refer to Section 4.16, *Tribal Cultural Resources*, of this EIR for a description of Assembly Bill (AB) 52, which established tribal cultural resources as environmental resources under CEQA.

## Senate Bill 18

Refer to Section 4.16, *Tribal Cultural Resources*, of this EIR for a description of Senate Bill (SB) 18, which established tribal cultural resources as environmental resources under CEQA.

### 4.4.3.3 Local

#### South San Francisco General Plan

The 1999 South San Francisco General Plan (General Plan) provides a vision for long-range physical and economic development of the city, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with City plans and policy standards. The General Plan contains an Open Space and Conservation Element, outlining policies related to a number of resource topics, including historical and cultural resources. The General Plan includes the following policies applicable to cultural resources:

- Policy 7.5-G-1: Conserve historic, cultural, and archaeological resources for the aesthetic, educational, economic, and scientific contribution they make to South San Francisco's identity and quality of life.

The General Plan also establishes several specific policies for implementation of the guiding principles of the document. Specific policies that are relevant to this project include:

- Policy 7.5-I-3: Explore mechanisms to incorporate South San Francisco's industrial heritage in historic and cultural preservation.
- Policy 7.5-I-4: Ensure the protection of known archaeological resources in the city by requiring a records review for any development proposed in areas with known resources.
- Policy 7.5-I-5: In accordance with state law, require the preparation of a resource mitigation plan and monitoring program by a qualified archaeologist in the event that archaeological resources are uncovered.

#### South San Francisco Municipal Code

Chapter 2.56, of the South San Francisco Municipal Code (*Planning Commission*) contains several sections that pertain to the identification and treatment of historical resources within South San Francisco. A historical resource is defined as "a structure, a natural feature, or a site which is 50 years old or older, of architectural, artistic, cultural, engineering, aesthetic, archeological, historical, political, or social significance to the citizens of the city of South San Francisco, the state, or the nation" (SSFMC Section 2.56.090, Ordinance 1440, Section 2, 2011).

Per Section 2.56.170, prior to issuance of a building permit to materially alter the exterior of a designated historical resource or issuance of a demolition permit for all or a portion of a designated historic resource, the City's Planning Commission must issue a Certificate of Alteration. A Planning Application for a Certificate of Alteration shall be filed with the Planning Division and is subject to review by the Planning Commission.

A survey of historic properties in South San Francisco was conducted in 1985–1986 and is documented in the South San Francisco Historic Preservation Survey 1985–1986, which is considered to be the most up-to-date inventory of historical resources in the City. In addition, per

Section 15.32.010, the 2019 California Historical Building Code was adopted by resolution as the building code for historic buildings in South San Francisco.

### **San Bruno Plans and Policies**

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno (San Bruno) but would not develop any new structures or new land uses in San Bruno. The improvements would occur on areas that are already developed with existing circulation improvements. The specific off-site improvements located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning existing utilities within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. This section identifies and evaluates the proposed project's consistency with relevant policies from the San Bruno General Plan related to cultural resources as related to the portions of the off-site improvements located within San Bruno's jurisdiction. For additional discussion of the proposed project's consistency with San Bruno land use plans and policies, refer to Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*.

#### **San Bruno General Plan**

The City of San Bruno 2009 General Plan outlines a vision for the long-range physical and economic development of the community through 2025. The General Plan land use designations, policies, and implementing actions will guide local officials in making decisions on private development proposals and public facilities. The City of San Bruno General Plan contains an Environmental Resources and Conservation Element, which outlines policies relating to biological resources and habitat, water quality, air quality, global climate change, historical and cultural resources, and environmental resources and conservation policies. Given that the proposed project activities located within the city of San Bruno consist of only off-site circulation and utility improvements and no structures would be affected, most San Bruno General Plan policies related to historic or cultural resources do not apply to the project.) The applicable policies include:

- Guiding Policy ERC-F: Preserve and enhance historic and cultural resources within the city, particularly within the historic Downtown area.
- Implementing Policy ERC-35: Develop criteria for designation of local historic or cultural resources. Designation may not be based solely on the age of a resource, but rather special qualities, detailing, people, or events associated with it. Resources may also include special signage and/or landmarks known to city residents.
- Implementing Policy ERC-39: Continue to protect archaeological sites and resources from damage. Require that areas found to contain significant indigenous artifacts be examined by a qualified archaeologist for recommendations concerning protection and preservation.

## **4.4.4 Impacts and Mitigation Measures**

This section describes the impact analysis related to cultural resources for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact

would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

#### 4.4.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant cultural resources impact if it would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5,
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5, or
- Disturb any human remains, including those interred outside of formal cemeteries.

#### 4.4.4.2 Approach to Analysis

The project site and surrounding area were studied to determine whether cultural resources are potentially present and, if so, the potential impacts of the proposed project on those resources. Several methodologies were employed for the purpose of determining the potential presence of cultural resources.

##### Records Search

As described above in Section 4.4.2.4, *Existing Setting*, a records search was conducted at the NWIC. The records search did not identify any previously recorded archaeological resources within the project site. However, three archaeological resources have been previously identified within 0.25 mile of the project site (outside of the project site area). Two of these previously identified archaeological resources, P-41-000048 (CA-SMA-44) and P-41-000051 (CA-SMA-47), consist of prehistoric shell midden sites, and one, P-41-000207, consists of the Tanforan Detention Camp, as summarized in **Table 4.4-1, p. 4.4-16**.

##### Native American Tribal Consultation

Refer to Section 4.16, *Tribal Cultural Resources*, of this EIR for a description of the tribal notification efforts conducted by the City of South San Francisco under existing law and pursuant to AB 52 and SB 18.

##### Research Summary

As described above, ICF architectural historians completed research on the buildings located within the Specific Plan area, documented under DPR 523A, 523B, or 523L forms included in **Appendix 4.4-1** and the *Preliminary Assessment of Potential Historic District (Appendix 4.4-2)* described in Section 4.4.2.4 above, to understand the overall development of South San Francisco's industrial history. ICF architectural historians confirmed building ages and alterations over time by compiling all available building permits for the 16 existing buildings within the Specific Plan Area. Directory information was compiled by reference librarians at the City's public library and reviewed by ICF architectural historians to determine occupancy and ownership history over time. Additional research was conducted using available online resources such as ancestry.com, digital newspaper archives, DavidRumsey.com (historical map collection), and historicaerials.com.

## Field Survey

Because of COVID-19 restrictions, ICF architectural historians were unable to survey the project site in person. Photos of all buildings and general views within the project site were provided to ICF by the project applicant, and an online visual survey was conducted using Google Earth images.

No archaeological pedestrian survey occurred because of the developed nature of the project site.

## Buildout Scenario Studied (Office Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the proposed project would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the proposed project: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses 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’s impacts to cultural resources are site-specific, and analysis of the potential impacts related to cultural resources is dependent on a number of factors, including the project location, proposed demolition, the amount of ground that would be disturbed, the type of disturbance, the potential depth of excavation, and other factors. The two buildout scenarios would occur on the same parcels so present no difference in location. Both scenarios would remove all existing uses in the Specific Plan area and would include implementation of the same off-site improvements. While the two potential buildout scenarios are similar, the Office Scenario has the greatest building footprint (543,315 square feet versus 531,765 square feet), lot coverage (49 percent versus 46 percent), and built area (2,800,000 square feet versus 2,025,050 square feet). Similarly, while both scenarios would have the same maximum depth of excavation (31 feet below grade surface), the Office Scenario would result in a greater excavation volume than the Life Sciences Scenario (688,400 cubic yards compared to 353,700 cubic yards). Therefore, the Office Scenario has a greater potential to result in significant impacts to cultural resources and is analyzed as the “worst-case” scenario.

### 4.4.4.3 Impact Evaluation

**Impact CR-1: The project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. (*Project: Less than Significant Impact with Mitigation; Phase 1: Less than Significant Impact with Mitigation*)**

#### Project

The proposed project would demolish all buildings and structures within the Specific Plan area. The Specific Plan area includes seven parcels. Six of those parcels contain industrial buildings or structures that were constructed more than 45 years ago; the buildings within these parcels are evaluated for individual historical significance in the DPR forms included in **Appendix 4.4-1** of this EIR. The seventh parcel once contained a Southern Pacific Railroad (SPRR) spur; however, the tracks are no longer extant. The DPR evaluations concluded that no extant buildings within the Specific Plan area meet the criteria for individual listing in the CRHR and thus do not qualify as individual historical resources under CEQA. Therefore, the proposed project would not cause a substantial

adverse change to any individual buildings or structures that qualify as historical resources within the Specific Plan area.

The proposed project would also construct several off-site circulation and infrastructure improvements in the off-site improvement areas. There are no buildings or structures in the off-site improvement areas. Furthermore, the records search results, which included a desktop visual analysis and the research and documentation included in the DPR 523L form regarding the non-extant SPRR spur (see **Appendix 4.4-1**) do not reveal any other individual historical resources (including archaeological resources) located within the off-site improvement areas or adjacent to the project site. Therefore, the proposed project would not cause a substantial adverse change to any individual historical resources within the off-site improvement areas.

As described in Section 4.4.2, *Environmental Setting*, based on preliminary assessment (see **Appendix 4.4-1**), the Specific Plan area is located within the boundaries of a potential historic district. A historic district qualifies as a historical resource as defined in Section 15064.5 of the CEQA Guidelines, so analysis is included here for purposes of analyzing the project's potential impacts to cultural resources. Eleven of the buildings within the Specific Plan area, eight of which are located on the Phase 1 site, appear to contribute to the potential historic district based on the criteria defined under **Appendix 4.4-1**; under the proposed project, all eleven buildings would be demolished to allow for new development within the Specific Plan area. It is possible that further research could reveal that the potential district is able to maintain and convey its significance without these properties, but because the full scale of the potential district is unknown at this time, it is conservatively concluded that demolition of eleven potential contributors would impair qualities that qualify the potential historic district as a CEQA historical resource. As such, this impact is considered potentially significant, and mitigation is required. Implementation of **Mitigation Measure CR-1: Interpretive Signage Plan**, described below, would reduce the potentially significant impact to a less-than-significant level by requiring an on-site interpretive signage program, visible from a public right-of-way, that would provide public notice and awareness of the industrial history of the buildings, businesses, and products previously associated with the Specific Plan area, as well as the broader industrial history and significance of South San Francisco. Finally, because the Specific Plan area is located within a potential historic district, the new construction proposed under the project has the potential to impact the character and the setting of the potential district. The Specific Plan (**Appendix 2**) includes design guidelines for development within the Specific Plan area, including site design, building architecture, lighting, landscaping and signage. The design guidelines describe and illustrate the designs, concepts, and features intended to promote the high-quality development that is envisioned for the Specific Plan area. The design guidelines state that building design and materials should evoke an "Industrial Modern aesthetic that is sensitive and well suited to the surrounding architectural vernacular." The design guidelines for commercial buildings encourage a contemporary interpretation of the existing industrial motif using glass, metal and "brick-like" materials in a rich color palette, reflecting the industrial history of the Lindenville Planning Sub-Area. The design guidelines also state that landscape elements (including planting, lighting, hardscape, etc.) within the Specific Plan area should be designed to reflect a contemporary campus setting that is compatible with the Industrial Modern building architecture and aesthetic. Through adherence to the design guidelines, proposed construction under the Specific Plan would have a less-than-significant impact on the character and the setting of the potential historic district. No mitigation is required.

In summary, the demolition of eleven buildings within the Specific Plan area would result in a potentially significant impact to a potential historic district. Implementation of **Mitigation Measure**

**CR-1** would reduce the potentially significant impact to historical resources to a less-than-significant level by requiring an on-site interpretive signage program. The mitigation measure shall be implemented during Phase 1 because all proposed building demolition would occur during Phase 1. This impact would be *less than significant with mitigation*.

#### **Mitigation Measure CR-1: Interpretive Signage Program (Phase 1 Only)**

The Phase 1 applicant shall prepare an interpretive signage plan document setting forth the process for design and installation of interpretive signage within the Specific Plan area. The interpretive signage plan shall be developed in coordination with professionals who meet the Secretary of the Interior's Professional Qualification Standards in History or Architectural History.

The interpretive signage plan shall include details regarding the proposed locations for the signage and the design of the visual components of the interpretive historic district signage program. The interpretive signage plan does not need to include cost analysis or specifications for the fabrication or installation of the signage program.

The interpretive signage plan shall be reviewed and approved by the City of South San Francisco prior to the issuance of a demolition permit for the proposed project. No further discretionary review or approvals are anticipated to be required by the City to implement the interpretive historic district signage program. Implementation of the interpretive signage program shall include the following elements:

1. **Temporary Signage:** The temporary historic district interpretive signage program shall include at least one temporary marker or sign regarding South San Francisco's industrial heritage to display within or at the perimeter of the Specific Plan area for the duration of the construction process. The temporary signage shall be installed at a location that is visible from a public right-of-way and shall include a written narrative accompanied by historic images where feasible. As needed due to construction activity, the temporary signage may be relocated to another location that meets these criteria.
2. **Permanent Signage:** The permanent interpretive signage program shall include a minimum of two and a maximum of four permanent interpretive markers or signs that interpret South San Francisco's industrial heritage and include a history of the land uses previously located within the Specific Plan area. The signs shall describe the industries that operated within the Specific Plan area, such as Colorado Fuel and Iron, Poetsch & Peterson Tannery, and E. I. du Pont de Nemours, and provide a written or visual narrative that places these companies within the context of the City's industrial development. The permanent signage shall use relevant historic photos, historic maps, and company archival materials (such as logos), to illustrate the narrative where feasible given availability and publication permissions of the images. The signs shall be located within the Specific Plan area boundary and shall be visible to both Specific Plan area tenants and the general public from a public right-of-way. No more than half of the signs may be located in lobbies, restaurants, or other public spaces that are inside buildings. The permanent signs shall be installed prior to the issuance of the first Certificate of Occupancy for Phase 1, and may be located solely within the Phase 1 area.

#### **Phase 1**

The impact under Phase 1 would be the same as that analyzed above for the proposed project because all of the proposed building demolition and the majority of the off-site improvement

construction would occur during Phase 1. As noted in the project analysis above, implementation of Mitigation Measure CR-1 would be required during Phase 1. With implementation of this mitigation measure, the impact would be ***less than significant with mitigation***.

**Impact CR-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. (Project: *Less than Significant with Mitigation*; Phase 1: *Less than Significant with Mitigation*)**

### **Project**

The proposed project would require major grading and excavation to construct the new subterranean parking garages to a depth of up to 31 feet below grade level. An estimated 1,435,737 square feet of ground area would be disturbed, requiring approximately 688,400 cubic yards of soil to be excavated.

The records search conducted at the NWIC did not identify any previously recorded archaeological resources within the project site. However, the presence of two precontact midden deposits within 0.25 mile of the project site indicates increased potential for encountering as-yet undocumented archaeological deposits during project-related ground disturbance. Although the Project Area is highly developed, much of the prior development has been occupied by office, industrial, warehousing and distribution facilities that do not include sub-levels beneath grade. Therefore, the excavation and grading activity associated with construction of the subterranean portions of the proposed project also contributes to the potential for encountering as-yet undocumented archaeological deposits during project-related ground disturbance. This impact is considered potentially significant. Implementation of **Mitigation Measure CR-2a** and **Mitigation Measure CR-2b** would reduce this potentially significant impact on archaeological resources to a ***less-than-significant*** level by ensuring that project activities would not result in the inadvertent destruction of a significant archaeological resource.

Given the relationship between archaeological resources and tribal cultural resources, the mitigation measures below would also serve to mitigate potential impacts on tribal cultural resources that could potentially be encountered during project construction. Refer to Section 4.16, *Tribal Cultural Resources*, of this EIR for an evaluation of the proposed project's impacts on tribal cultural resources.

### **Mitigation Measure CR-2a: Cultural Resources Worker Environmental Awareness Program (All Phases)**

The Phase 1 applicant and applicants of future Precise Plans shall ensure that a qualified archaeologist shall conduct Worker Environmental Awareness Program (WEAP) training for all construction personnel on the project site prior to project-related construction and ground-disturbing activities. The training shall include basic information about the types of artifacts that might be encountered during construction activities and procedures to follow in the event of a discovery. This training shall be provided for any additional personnel added to the project, even after the initiation of construction and ground-disturbing activities.

### **Mitigation Measure CR-2b: Halt Construction Activity, Evaluate Find, and Implement Mitigation for Archaeological and Tribal Cultural Resources (All Phases)**

Should a potential archaeological or tribal cultural resource be encountered during project construction activities, the construction contractor shall halt construction within 25 feet of the

find and immediately notify the City. A qualified archaeologist, in consultation with the City, shall 1) evaluate the potential resource to determine if it meets the CEQA definition of a unique archaeological resource pursuant to Public Resources Code Section 21083.2 or a tribal cultural resource pursuant to Public Resources Code Section 21074 and 2) make recommendations about the treatment of the resource, as warranted. If the qualified archaeologist determines the find is not a unique archaeological resource, then proper recordation and identification shall be completed and construction shall continue without delay.

If the resource meets the CEQA definition of a unique archaeological resource or tribal cultural resource, it shall be avoided to the extent feasible by project construction activities to allow for preservation in place as described under CEQA Guidelines Section 15126.4 (b)(3)(A)-(B). If avoidance is not feasible, and the resource is determined to be a unique archaeological resource, adverse effects to the resource shall be mitigated as specified by Public Resources Code Section 21083.2. This mitigation may include, but is not limited to, a thorough recording of the resource on Department of Parks and Recreation Form 523 records, or archaeological data recovery excavation. If data recovery excavation is warranted, CEQA Guidelines Section 15126.4 (b)(3)(C), which requires a data recovery plan prior to data recovery excavation, shall be followed. If avoidance is not feasible, and the resource is determined to be a tribal cultural resource, additional coordination with the appropriate California Native American tribe(s) shall be conducted in accordance with existing laws to determine appropriate mitigation, including consideration of the measures identified in Public Resources Code Section 21084.3.

### Phase 1

Phase 1 would require grading or disturbing an area of approximately 740,000 square feet during construction. Phase 1 would excavate approximately 293,000 cubic yards of soil to a depth of up to 31 feet below grade level. For the reasons stated above in the project analysis, construction of Phase 1 could have the potential to encounter as-yet undocumented precontact archaeological deposits. This impact is considered potentially significant. Implementation of **Mitigation Measure CR-2a** and **Mitigation Measure CR-2b** would reduce this potentially significant impact to archaeological resources to *less than significant*.

Refer to Section 4.16, *Tribal Cultural Resources*, of this EIR for an evaluation of Phase 1 impacts on tribal cultural resources.

**Impact CR-3: The project would not disturb any human remains, including those interred outside of formal cemeteries. (Project: Less than Significant with Mitigation; Phase 1: Less than Significant with Mitigation)**

### Project

As stated above, no previously identified archaeological resources have been recorded within the project site. However, the presence of two precontact midden deposits within 0.25 mile of the project site indicates that there is increased potential for project-related ground disturbance to encounter as-yet undocumented archaeological deposits. Midden deposits, like the ones identified in the vicinity of the project site, often contain human remains. Therefore, for the reasons stated in **Impact CR-2**, construction of the proposed project has the potential to encounter as-yet undocumented precontact archaeological deposits that may contain human remains. This impact is

considered potentially significant. Implementation of **Mitigation Measure CR-2a** and **Mitigation Measure CR-2b**, as well as **Mitigation Measure CR-3**, which specifies discovery procedures for human remains, would reduce this potentially significant impact on human remains to a less-than-significant level. The impact would be *less than significant with mitigation*.

**Mitigation Measure CR-3: Halt Construction Activity, Evaluate Remains, and Take Appropriate Action in Coordination with Native American Heritage Commission (All Phases)**

In the event that human remains are uncovered during site preparation, excavation, or other construction activity, the Phase 1 applicant and applicants of future Precise Plans shall cease or ensure the ceasing of all such construction activity within a radius of 25 feet of the discovery and shall notify the San Mateo county coroner immediately. No further construction activity shall occur within this 25-foot radius until the San Mateo county coroner has evaluated the remains and has taken appropriate action in accordance with Section 5097.98 of the California Public Resources Code. Concurrently, an archaeologist shall be contacted to assess the situation and consult with the appropriate agencies. If the human remains are of Native American origin, the coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours of this identification in accordance with section 5097.98 of the California Public Resources Code, and section 7050.5 of the California Health and Safety Code, as applicable. The NAHC shall identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. The MLD may inspect the site of the discovery and shall complete the inspection within 48 hours of notification by the NAHC.

**Phase 1**

For the reasons stated in the project analysis, construction of Phase 1 has the potential to encounter as-yet undocumented precontact archaeological deposits that may contain human remains. This impact is considered potentially significant. Implementation of **Mitigation Measure CR-2a** and **Mitigation Measure CR-2b**, as well as **Mitigation Measure CR-3**, which specifies discovery procedures for human remains, would reduce this potentially significant impact on human remains to a less-than-significant level. The impact would be *less than significant with mitigation*.

#### **4.4.4.4 Cumulative Impacts**

**Impact C-CR-1: The Project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a considerable contribution to significant cumulative impacts on historical resources. (Project: Less than Significant; Phase 1: Less than Significant)**

The cumulative geographic context for historical resources is the potential historic district area (see Figure 1 in Section D.1 in the Potential Historic District Assessment memo in **Appendix 4.4-1**). The potential district is roughly 1,840 acres and is concentrated on the east side of South San Francisco, including San Bruno and Oyster Points, the Lindenville Planning Sub-Area (the area of the project site), and the San Francisco International Airport area. The exact boundary, size, and number and locations of contributing properties within the potential historic district are unknown; a complete historic district evaluation would be required to identify these features, which is beyond the scope of this analysis for purposes of evaluating the project's potential impacts.

The Potential Historic District Assessment outlines broad parameters for the potential district (see **Appendix 4.4-1**). It is assumed that many extant properties fall within the identified parameters, and may qualify as potential historic district contributors due to the district's large scale, the prevalence of industrial architecture in the City, and the relatively recent period of industrial development that took place in South San Francisco. Therefore, the current integrity of the potential district is assumed to be intact. A significant cumulative impact to the potential historic district would occur if enough potential contributing properties were to be demolished or altered to the point where the potential historic is unable to convey its historic significance.

Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR identifies 32 cumulative projects in the City of South San Francisco. Nearly all of the projects are located within the potential historic district area. Three projects propose the demolition or alteration of existing industrial uses. Conservatively assuming that all of the existing industrial uses are potential contributors to the potential historic district, a total of 14 contributors to the potential historic district (including the 11 buildings that would be demolished by the proposed project) would be demolished or altered. Given the size of the potential historic district area and the number of assumed contributors, it is reasonable to assume that the potential historic district would continue to be able to convey its historic significance, and a ***less than significant*** cumulative impact would occur.

**Impact C-CR-2: The Project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on archaeological resources or human remains. (Project: *Less than Cumulatively Considerable with Mitigation*; Phase 1: *Less than Cumulatively Considerable with Mitigation*)**

The cumulative geographic context for archaeological resources and human remains is the immediate vicinity of the project site, which is the area where construction activities, including ground-disturbing activities, could encounter archaeological resources and human remains that may be present on or near the site. The cumulative projects within 0.5 mile of the project site are described in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR and shown in **Figure 4.1-1**.

The cumulative projects in the vicinity of the project site would be constructed on infill sites in highly disturbed areas. It is likely that the cumulative projects would be constructed on sites where the ground surface has been disturbed and/or covered with fill and gravel. Similar to the proposed project, all cumulative projects would be required to implement mitigation measures to ensure that project activities would not result in the inadvertent destruction of an archaeological resource and that discovery procedures pertaining to human remains would be implemented. Nonetheless, cumulative impacts on archaeological resources and human remains are considered potentially significant because the reasonably foreseeable projects would most likely involve ground-disturbing activities that could uncover resources related to resources that could be uncovered by the project.

Implementation of **Mitigation Measure CR-2a**, **Mitigation Measure CR-2b**, and **Mitigation Measure CR-3** would ensure that the proposed project's contribution to cumulative impacts on archaeological resources and human remains would be ***less than cumulatively considerable with mitigation***.

## 4.5 Energy

### 4.5.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on energy. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes greenhouse gas (GHG) and energy modeling files and calculations (**Appendix 4.2-1**).

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. No questions or concerns related to energy were raised in response to the NOP.

### 4.5.2 Environmental Setting

Energy resources in California include natural gas, electric, 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 emissions of pollutants.

#### State Energy Resources and Use

California's diverse portfolio of energy resources produced approximately 2,408.2 trillion British thermal units (BTUs)<sup>1</sup> in 2018.<sup>2</sup> Excluding offshore areas, the state ranked seventh in the nation in crude oil production in 2018 (the most recent year for which data are available), producing the equivalent of approximately 965.3 trillion BTUs.<sup>3</sup> Other energy sources in the state include natural gas (228.9 trillion BTUs), nuclear (190.4 trillion BTUs), and biofuel (35.5 trillion BTUs).<sup>4,5,6</sup> In addition, because of the mild Mediterranean climate and strict conservation requirements for energy efficiency, California has lower energy consumption rates than most parts of the United

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<sup>1</sup> One BTU is the amount of energy required to heat 1 pound of water by 1°F at sea level. BTU is the standard unit of energy used in the United States and based on the English system of units (foot-pound-second system).

<sup>2</sup> U.S. Energy Information Administration. 2020a. *Table P5B—Primary Energy Production Estimates, Renewable and Total Energy, in Trillion BTU, Ranked by State, 2018*. Available: [https://www.eia.gov/state/seds/sep\\_prod/pdf/P5B.pdf](https://www.eia.gov/state/seds/sep_prod/pdf/P5B.pdf). Accessed: November 3, 2020.

<sup>3</sup> U.S. Energy Information Administration. 2020b. *Table P5A—Primary Energy Production Estimates, Fossil Fuels and Nuclear Energy, in Trillion BTU, Ranked by State, 2018*. Available: [https://www.eia.gov/state/seds/sep\\_prod/pdf/P5A.pdf](https://www.eia.gov/state/seds/sep_prod/pdf/P5A.pdf). Accessed: November 3, 2020.

<sup>4</sup> No coal production occurs in California.

<sup>5</sup> U.S. Energy Information Administration. 2020a. *Table P5B—Primary Energy Production Estimates, Renewable and Total Energy, in Trillion BTU, Ranked by State, 2018*.

<sup>6</sup> U.S. Energy Information Administration. 2020b. *Table P5A—Primary Energy Production Estimates, Fossil Fuels and Nuclear Energy, in Trillion BTU, Ranked by State, 2018*.

States. According to the U.S. Energy Information Administration, California consumed approximately 7,966.6 trillion BTUs of energy in 2018.<sup>7</sup> California's per capita energy consumption of approximately 201.9 million BTUs is one of the lowest in the country and ranked 48<sup>th</sup> in the nation as of 2018.<sup>8</sup>

In 2018, natural gas accounted for the majority of energy consumption (2,207.4 trillion BTUs, or 28 percent), followed by gasoline (1,716.3 trillion BTUs, or 21 percent); renewable energy, including nuclear electric power, hydroelectric power, biomass, and other renewables (1,344.9 trillion BTUs, or 17 percent); distillates and jet fuel (1,260.5 trillion BTUs, or 16 percent); and interstate electricity (865.7 trillion BTUs, or 11 percent), with the remaining 7 percent coming from a variety of other sources.<sup>9</sup> Of the natural gas consumed, industrial uses consumed approximately 37 percent, followed by residential uses (22 percent) and commercial uses (12 percent), among many other uses.<sup>10</sup>

The transportation sector consumed the greatest quantity of energy (3,170.0 trillion BTUs, or 40 percent), followed by the industrial (1,848.2 trillion BTUs, or 23 percent), commercial (1,509.2 trillion BTUs, or 19 percent), and residential (1,439.2 trillion BTUs, or 18 percent) sectors.<sup>11</sup>

Per capita energy consumption, in general, is declining because of improvements in energy efficiency and designs. 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 grow over the next several decades as a result of increases in population, jobs, and vehicle miles traveled (VMT).

## Regional Energy Resources and Use

Pacific Gas and Electric (PG&E) provides natural gas and electricity services to the vast majority of Northern California, including the City of South San Francisco and the project site. PG&E's service area 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. It also obtains energy 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 addition, PG&E provides all of the natural gas and electric infrastructure in South San Francisco. PG&E has two plan options, known as Solar Choice options, in addition to its base plan, which give customers the option of purchasing energy from solar resources. The first Solar Choice option

<sup>7</sup> U.S. Energy Information Administration. 2020c. *Table C11—Energy Consumption Estimates by End-Use Sector, Ranked by State, 2018*. Available: [https://www.eia.gov/state/seds/sep\\_sum/html/rank\\_use.html](https://www.eia.gov/state/seds/sep_sum/html/rank_use.html). Accessed: November 3, 2020.

<sup>8</sup> U.S. Energy Information Administration. 2020d. *Table C14—Energy Consumption Estimates per Capita by End-Use Sector, Ranked by State, 2018*. Available: [https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep\\_sum/html/rank\\_use\\_capita.html&sid=US](https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_sum/html/rank_use_capita.html&sid=US). Accessed: November 3, 2020.

<sup>9</sup> U.S. Energy Information Administration. 2020e. *California State Energy Profile*. Available: <https://www.eia.gov/state/print.php?sid=CA>. Accessed: November 3, 2020.

<sup>10</sup> U.S. Energy Information Administration. 2020f. *Natural Gas Consumption by End Use—California*. Available: [https://www.eia.gov/dnav/ng/ng\\_cons\\_sum\\_dc\\_u\\_sca\\_a.htm](https://www.eia.gov/dnav/ng/ng_cons_sum_dc_u_sca_a.htm). Accessed: November 3, 2020.

<sup>11</sup> U.S. Energy Information Administration. 2020c. *Table C11—Energy Consumption Estimates by End-Use Sector, Ranked by State, 2018*.

provides up to 50 percent of a customer's energy from solar resources, while the other option provides up to 100 percent of a customer's energy from solar resources. In addition, Peninsula Clean Energy (PCE) is San Mateo County's official Community Choice Aggregation electricity provider. PCE's power comes from a mix of sources, including solar, wind, geothermal, biomass and biowaste, and hydroelectric generation resources. PCE delivers power to its customers through existing PG&E utility infrastructure.<sup>12</sup> PCE allows customers to choose between two different electricity product operations: ECOplus (50 percent renewable electricity sources) and ECO100 (100 percent renewable electricity sources).<sup>13</sup>

In San Mateo County, a total of approximately 214.4 million therms of natural gas were consumed in 2019 (the most recent year for which data are available). In 2019, natural gas in San Mateo County was consumed primarily by the residential sector (56 percent), followed by the non-residential sector (44 percent).<sup>14</sup> In 2019, San Mateo County consumed a total of approximately 4,325.2 million kilowatts of electricity. In San Mateo County, electricity was consumed primarily by the non-residential sector (64 percent), followed by the residential sector (36 percent).<sup>15</sup> Electricity usage for different land uses varies substantially by the types of uses in a building, the types of construction materials used, and the efficiency of the electricity-consuming devices. However, energy consumption in the city of South San Francisco has generally decreased over recent years despite a growing population, as shown in the 2010–2015 data (the most recent years for which data are available).<sup>16</sup>

**Table 4.5-1, p. 4.5-4**, outlines PG&E's and PCE's power mix in 2018, compared to the power mix for the state, and **Table 4.5-2, p. 4.5-5**, outlines the city of South San Francisco's electricity and natural gas consumption from 2010 to 2015.

## Specific Plan Area and Phase 1 Site Energy Resources and Use

As described in more detail in Chapter 3, *Project Description*, the project site comprises the Specific Plan area and the off-site improvement areas. The Phase 1 site includes part of the Specific Plan area and most of the off-site improvement areas. The off-site improvement areas consist of rights-of-way and easements in the cities of South San Francisco and San Bruno that are developed with circulation and utility infrastructure. The off-site improvement areas do not include any land uses that consume energy. Therefore, the existing setting discussion in the energy analysis focuses on the Specific Plan area, including the portion of the Phase 1 site located within the Specific Plan area.

The Specific Plan area, including the portion of the Phase 1 site in the Specific Plan area, currently comprises a variety of office, industrial, warehouse, and storage facilities as well as surface parking spaces. **Table 4.5-3, p. 4.5-5**, shows existing energy usage at the Specific Plan area, inclusive of the Phase 1 Site.

<sup>12</sup> PCE charges each of its customers an electric delivery charge for maintenance of PG&E's wires, infrastructure, and delivery of electricity to customers.

<sup>13</sup> Peninsula Clean Energy. 2020. What are My Rates? Available: <https://www.peninsulacleanenergy.com/for-businesses/>. Accessed: November 3, 2020.

<sup>14</sup> California Energy Commission. n.d. *Gas Consumption by County—San Mateo County 2019*. Available: <https://ecdms.energy.ca.gov/gasbycounty.aspx>. Accessed: November 3, 2020.

<sup>15</sup> California Energy Commission. n.d. *Electricity Consumption by County—San Mateo County 2018*. Available: <https://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed: November 3, 2020.

<sup>16</sup> County of San Mateo Datahub. 2019a. *County of San Mateo Performance—South San Francisco*. Available: <https://performance.smcgov.org/stories/s/pii5-fvmc>. Accessed: November 3, 2020.

As stated previously, PG&E provides natural gas and electricity to the City of South San Francisco through right-of-way electric and natural gas lines. The East Grand Substation, which serves the Specific Plan area, has 115-kilovolt (kV) overhead feeds and four three-phase 115/12 kV transformer banks. Local electric distribution infrastructure around the Specific Plan area consists of 600- and 200-amp 12 kV underground and overhead distribution lines as well as secondary systems (i.e., below 600 volts). PG&E 12 kV overhead and underground radial distribution and secondary service systems are present within the Specific Plan area. Along South Maple Avenue, Tanforan Avenue, and Dollar Avenue, overhead 12 kV distribution facilities are present.<sup>17</sup> Natural gas pipelines are located below ground in adjacent public rights-of-way. The gas transmission pipelines adjacent to U.S. 101 are approximately 0.5 mile east of the Specific Plan area.<sup>18</sup>

**Table 4.5-1. PG&E, PCE, and the State's Power Mix in 2018**

Energy Resources	PG&E Option: Base Plan	PG&E Option: 50% Solar Choice	PG&E Option: 100% Solar Choice	PCE Option: ECOplus	PCE Option: ECO100	California Power Mix, 2018
Eligible renewable:	39%	69%	100%	51%	100%	31%
<i>Biomass and waste</i>	4%	2%	0%	5%	0%	2%
<i>Geothermal</i>	4%	2%	0%	2%	0%	5%
<i>Small hydroelectric</i>	3%	1%	0%	5%	0%	2%
<i>Solar</i>	18%	59%	100%	7%	50%	11%
<i>Wind</i>	10%	5%	0%	33%	50%	11%
Coal	0%	0%	0%	0%	0%	3%
Large hydroelectric	13%	6%	0%	35%	0%	11%
Natural gas	15%	7%	0%	0%	0%	35%
Nuclear	34%	17%	0%	0%	0%	9%
Other	0%	0%	0%	0%	0%	< 1%
Unspecified <sup>a</sup>	0%	0%	0%	14%	0%	11%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: PG&E. 2019. *Where Your Electricity Comes From*. Available: [https://www.pge.com/pge\\_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2019/1019-Power-Content-Label.pdf](https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2019/1019-Power-Content-Label.pdf). Accessed: November 3, 2020.

PCE. 2019. *2018 Power Content Label*. Available: [https://www.peninsulacleanenergy.com/wp-content/uploads/2019/10/PCE\\_EV-Incentive-Program-Postcard-Series\\_Final.pdf](https://www.peninsulacleanenergy.com/wp-content/uploads/2019/10/PCE_EV-Incentive-Program-Postcard-Series_Final.pdf). Accessed: November 3, 2020.

<sup>a</sup>. Electricity from transactions that are not traceable to specific generation sources are classified as *unspecified* sources of power.

<sup>17</sup> Power Design Systems. 2020. *PG&E Electric/Dry Utility Planning Study*. April 9, 2020.

<sup>18</sup> U.S. Department of Transportation. n.d. *NPHMS Public Viewer—Gas Transmission Pipelines, San Mateo County*. Available: <https://pvnphms.phmsa.dot.gov/PublicViewer/#>. Accessed: November 4, 2020.

**Table 4.5-2. Electricity and Natural Gas Consumption in the City of South San Francisco, 2010–2015**

<b>Energy Resources</b>	<b>Electricity (kWh)</b>	<b>Natural Gas (therms)</b>
<b>2010</b>		
<i>Residential</i>	106,482,913	9,430,667
<i>Commercial and industrial</i>	231,478,981	14,967,060
<b>Total</b>	<b>337,961,894</b>	<b>24,397,727</b>
<b>2011</b>		
<i>Residential</i>	104,502,797	9,472,247
<i>Commercial and industrial</i>	228,863,085	15,054,584
<b>Total</b>	<b>333,365,882</b>	<b>24,526,831</b>
<b>2012</b>		
<i>Residential</i>	103,260,746	9,208,976
<i>Commercial and industrial</i>	223,204,783	14,878,901
<b>Total</b>	<b>326,465,529</b>	<b>24,087,877</b>
<b>2013</b>		
<i>Residential</i>	101,583,862	9,130,055
<i>Commercial and industrial</i>	217,442,565	14,529,796
<b>Total</b>	<b>319,026,427</b>	<b>23,659,851</b>
<b>2014</b>		
<i>Residential</i>	96,370,466	7,379,210
<i>Commercial and industrial</i>	224,214,612	12,837,263
<b>Total</b>	<b>320,585,078</b>	<b>20,216,473</b>
<b>2015</b>		
<i>Residential</i>	95,163,472	7,310,750
<i>Commercial and industrial</i>	221,831,910	13,295,230
<b>Total</b>	<b>316,995,382</b>	<b>20,605,980</b>

Sources: County of San Mateo Datahub. 2019a. *County of San Mateo Performance—South San Francisco*. Available: <https://performance.smcgov.org/stories/s/pii5-fvmc>. Accessed: November 3, 2020.

County of San Mateo Datahub. 2019b. *South San Francisco Energy Contribution to Greenhouse Gas Emissions, Natural Gas Consumption Bar Graph 2*. Available: <https://performance.smcgov.org/stories/s/pii5-fvmc>. Accessed: November 3, 2020.

kWh = kilowatt-hour

**Table 4.5-3. Existing Operational Energy Resource Consumption at the Specific Plan Area**

<b>Energy Resources</b>	<b>Project Site</b>
Electricity (kWh/year)	1,606,732
Natural gas (therm/year)	59,934
Gasoline (gallons/year) <sup>a</sup>	3,151,950
Diesel (gallons/year) <sup>a</sup>	179,964

Source: CalEEMod. See **Appendix 4.2-1**.

kWh = kilowatt-hour

### 4.5.3 Regulatory Framework

This section provides a summary of energy-related plans and policies of federal, state, and local agencies that have policy and regulatory control over the project site.

#### 4.5.3.1 Federal

As discussed in Sections 4.2, *Air Quality*, and 4.7, *Greenhouse Gas Emissions*, of this EIR, the National Highway Traffic Safety Administration (NHTSA) sets Corporate Average Fuel Economy (CAFE) standards to improve average fuel economy (i.e., reduce fuel consumption) and reduce GHG emissions generated by cars and light-duty trucks. NHTSA and the U.S. Environmental Protection Agency (EPA) have proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks and new standards for model years 2021 through 2026. Under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, current 2020 standards would be maintained through 2026. 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).<sup>19</sup> 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.<sup>20</sup> The SAFE Vehicles Rule will decrease the stringency of CAFE standards by 1.5 percent each year through model year 2026 compared with the standards issued in 2012, which would have required about 5 percent annual increases.

#### 4.5.3.2 State

California has adopted statewide legislation to address various aspects of climate change and GHGs, which often pertain directly or indirectly to energy resources and uses. This section focuses on state legislation that specifically mentions energy use or energy resources. For other state legislation that focuses mainly on GHG reductions and climate change, refer to Section 4.7, *Greenhouse Gas Emissions*, of this EIR.

##### **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 to lower GHG emissions from automobiles and light-duty trucks to the maximum extent

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<sup>19</sup> On February 11, 2020, *California et al. v. United States Department of Transportation et al.* was pending resolution of the related litigation of *Union of Concerned Scientists v. National Highway Traffic Safety Administration* (19-1230, U.S. Court of Appeals for the District of Columbia Circuit). The Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to dismiss or transfer to the D.C. Circuit a case filed in federal court in D.C. challenging NHTSA’s final rule withdrawing California’s waiver for its GHG and zero-emission vehicle (ZEV) program and preempting state programs that regulate vehicle greenhouse gas emissions or create ZEV mandates. On February 8, 2021, the D. C. Circuit Court of Appeals issued an order holding the cases in abeyance pending regulatory review.

<sup>20</sup> Of note, on January 20, 2021, President Biden released EO No. 13990, which, among other things, calls for agency review for Part 1 of the SAFE Vehicles Rule by April 2021, and Part 2 by July 2021. The order states that agencies shall consider whether to propose, suspend, revise, or rescind these rules.

feasible beginning in 2009. In 2012, strengthening of the Pavley standards (referred to previously as Pavley II but now referred to as the Advanced Clean Cars measures) was adopted for vehicle model years 2017 through 2025. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025. The increase in fuel economy will help lower the demand for fossil fuels.

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

The California Green Building Standards Code (Part 11, Title 24), or CALGreen, was adopted as part of the California Building Standards Code (24 California Code of Regulations). CALGreen, which applies to the planning, design, operation, construction, use, and occupancy of newly constructed buildings, required energy- and water-efficient indoor infrastructure to be installed in all new projects, beginning January 1, 2011. CALGreen also required newly constructed building to develop a waste management plan and divert at least 50 percent of the construction materials generated during project construction.

The current Building Energy Efficiency Standards were adopted in 2019 and took effect on January 1, 2020. Under the 2019 standards, homes will use about 53 percent less energy than homes constructed under the 2016 standards, while nonresidential buildings will use about 30 percent less energy. Future standards are expected to require zero net energy for new commercial buildings.

### **Executive Order B-16-12 (2012)**

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

### **Senate Bill 350, 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 California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions require the following by 2030: (1) a Renewables Portfolio Standard (RPS)<sup>21</sup> of 50 percent and (2) doubling of the statewide energy efficiency savings related to natural gas and electricity end uses. In order to meet these provisions, the bill requires large utilities to develop and submit integrated resource plans that detail how the utilities will reduce GHG emissions and increase the use of clean energy resources while meeting 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 percent and requires an RPS of 100 percent by 2045.

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<sup>21</sup> 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 for load-serving entities within California (California Energy Commission 2020).

### 4.5.3.3 Regional

#### PG&E Integrated Resource Plan

PG&E adopted the 2020 Integrated Resource Plan (IRP) on September 1, 2020, to provide guidance for serving the electricity and natural gas needs of residents and businesses within its service area while fulfilling regulatory requirements. The IRP contains the following objectives that are relevant to the proposed project:

- **Clean Energy:** In 2019, PG&E delivered nearly 30 percent of its electricity from RPS-eligible renewable resources, such as solar, wind, geothermal, biomass, and small hydropower. In addition, PG&E's GHG-free energy production, which encompasses renewable resources, large hydropower, and nuclear, satisfied all of PG&E's bundled retail sales in 2019.
- **Reliability:** PG&E's IRP analysis includes PG&E's contribution to system and local reliability, in compliance with the CPUC's resource adequacy requirements, especially as California transitions toward higher shares of GHG-free generation resources.
- **Affordability:** PG&E's IRP analysis selects resources to meet the state's clean energy and reliability goals and provides a system average rate forecast in compliance with the CPUC's requirements for investor-owned utilities.

#### PCE 2018 Integrated Resource Plan

PCE is a Community Choice Aggregation energy program that serves the entirety of San Mateo County, including the City of South San Francisco. PCE adopted the 2018 IRP on 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 from 2018 to 2027. The plan contains the following strategic goals that are relevant to the proposed project:

- Design a diverse power portfolio that is GHG free, as follows,
  - 100 percent GHG free by 2021,
  - 100 percent RPS-eligible renewable energy by 2025, and
  - Delivering a minimum of 20 megawatts 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; and
- Implement programs to reduce GHG emissions by investing in programs, such as those related to 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 its 2018 IRP, PCE procured enough renewable energy to meet a voluntary 50 percent 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 percent 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.

#### 4.5.3.4 Local

As described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno, but would not include the development of any new structures or land uses within the City of San Bruno. These improvements include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. Because the off-site improvements within the City of San Bruno's jurisdiction would not generate a permanent demand for energy, this section does not evaluate the project's consistency with San Bruno plans and policies related to energy.

#### South San Francisco General Plan

The South San Francisco 1999 General Plan provides a vision for long-range physical and economic development of the city, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The City General Plan contains an Open Space and Conservation Element, which includes policies related to air quality, GHG emissions, and energy resources. The City's General Plan includes the following policies that are applicable to energy:

- Guiding Policy 7.3-G-3: Reduce energy use in the built environment.
- Guiding Policy 7.3-G-4: Encourage land use and transportation strategies that promote the use of alternatives to the automobile for transportation, including bicycling, bus transit, and carpooling.
- Guiding Policy 7.3-G-5: Promote clean and alternative-fuel combustion in mobile equipment and vehicles.
- Implementing Policy 7.3-I-9: Promote land uses that facilitate alternative transit use, including high-density housing, mixed uses, and affordable housing served by alternative transit infrastructure.
- Implementing Policy 7.3-I-10: Facilitate energy efficiency in building regulations and streamline review processes, thereby providing the flexibility needed to achieve specified energy performance levels while requiring energy efficiency measures as appropriate.
- Implementing Policy 7.3-I-13: Encourage efficient, clean energy and fuel use through collaborative programs, award programs, and incentives while removing barriers to the expansion of alternative-fuel facilities and infrastructure.
- Implementing Policy 7.3-I-14: Ensure that design guidelines and standards support operation of alternative-fuel facilities, vehicles, and equipment.

#### Climate Action Plan

The City's Climate Action Plan (CAP), adopted in 2014, includes goals, policies, and strategies to reduce South San Francisco's GHG emissions, in compliance with AB 32 and SB 375. GHG reduction strategies identified in the CAP include a development checklist for identifying applicable plan

measures pertaining to discretionary projects. The City's CAP was adopted with the purpose of reducing GHGs community-wide and meeting the reduction target (i.e., 15 percent below 2005 emission levels by 2020). The City has identified GHG reduction measures in the transportation, energy, waste, water and wastewater, and land use sectors, which can be coupled with state and existing local actions to reduce GHG emissions. GHG emissions largely involve energy consumption (i.e., fossil-fuel usage); therefore, a reduction in GHG emissions would also equate to a reduction in energy consumption.

- The following GHG reduction measures are applicable to energy:
  - Measure 1.1: Expand active transportation alternatives by providing infrastructure and enhancing connectivity for bicycle and pedestrian access.
  - Measure 2.1: Expand the use of alternative-fuel vehicles by, in part, requiring large-scale nonresidential developments to provide a conduit for future electric-vehicle charging installations and encouraging the installation of conduits or electric-vehicle charging stations for all new development.
  - Measure 3.1: Maximize energy efficiency in the built environment through standards and the plan review process.
  - Measure 4.1: Promote the installation of alternative energy facilities by, in part, (i) requiring new nonresidential conditioned space of 5,000 square feet or more to meet energy reduction standards by providing a minimum of 50 percent of the building's electricity needs through on-site renewable energy, participating in a power purchase agreement to offset a minimum of 50 percent of modeled building electricity use, or complying with CALGreen (Title 24) Tier 2 energy efficiency requirements to exceed mandatory energy efficiency requirements by 20 percent or more and (ii) requiring all new development to install a conduit to accommodate wiring for solar.

As described in Section 4.10, *Land Use and Planning*, of this EIR, the City's CAP is currently being updated as part of the update to the City General Plan. The 2014 CAP remains active until completion and adoption of the new CAP.

## 4.5.4 Impacts and Mitigation Measures

This section describes the impact analysis related to energy for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) potentially significant impacts accompany each impact discussion, when necessary.

### 4.5.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant energy impact if it would:

- Result in potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

#### 4.5.4.2 Approach to Analysis

Energy impacts associated with construction and operation of the proposed 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 for determining whether a project would result in the wasteful, inefficient, or unnecessary consumption of energy resources. As stated in Appendix F, the goal of conserving energy implies a wise and efficient use of energy; the means for achieving this goal include:

- 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 as well as 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; and
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

### Project

#### Buildout Scenario Studied (Office Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow for the development of up to 2.8 million net new square feet of office or research-and-development (R&D) uses, or a combination of both, the exact amount and configuration of which cannot be forecast with precision. To account for the variability resulting from office and R&D development within the Specific Plan area, two different buildout scenarios have been developed for purposes of the EIR analysis, the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses the buildout scenario that 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.

The types of construction and the levels of construction-related energy consumption are anticipated to be similar for both scenarios, but as described below, they cannot be precisely quantified.

Therefore, either buildout scenario represents the worst-case scenario in terms of the energy consumption impacts associated with construction. On the other hand, the differences in the gross square footage and land uses would influence long-term energy consumption. The R&D buildings under the Life Sciences Scenario would have a higher building energy consumption rate (in terms of kilowatt-hour per square foot of space) and higher-horsepower emergency diesel generators, which would consume more diesel fuel. However, the Office Scenario would involve more building development than the Life Sciences Scenario (i.e., an additional approximately 774,950 square feet). Although the Office Scenario would have a lower building energy consumption rate per square foot and lower-horsepower generators, the increased building square footage would offset these features, making the Office Scenario the worst-case scenario in terms of the energy consumption associated with operation. Furthermore, the Office Scenario would generate nearly twice as many vehicle trips by commuters compared with the Life Sciences Scenario (11,200 employees versus 5,786). Therefore, for the analysis of energy consumption associated with project operation, the worst-case scenario is assumed to be the Office Scenario. Therefore, that scenario is evaluated in this section.

### Construction

Construction activities under the project would result in energy consumption from the use of construction equipment; the use of vehicles, including haul trucks, by workers; and the use of electricity. At this time, the construction schedule and activities associated with each individual development project within the Specific Plan area are not known, other than Phase 1, which is evaluated separately below. With anticipated buildout in 2030, 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.<sup>22</sup> 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 includes the use of natural gas, electricity, and fuel for mobile sources (i.e., vehicles). Specifically, landscaping equipment, including gasoline-powered equipment (e.g., trimmers, mowers); the five emergency generators; water usage; and natural gas for building and water heating would all result in energy consumption during project operation.

Natural gas and electricity use was quantified using the California Emissions Estimator Model (CalEEMod), version 2016.3.2, for existing (2018) and buildout (2030) conditions with the Specific Plan area, reflecting implementation of state measures to reduce energy use and resulting GHG emissions (e.g., Pavley standards). Defaults were assumed, based on the anticipated land uses and square footage identified in the Office Scenario. The analysis quantifies energy reductions that would result from the Specific Plan's requirement for the project to utilize 100 percent carbon-free electricity for all operational electricity needs through participation in programs such as PG&E Solar Choice or Peninsula Clean Energy, as discussed in Chapter 3, *Project Description*, of this EIR. The

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<sup>22</sup> Project-level information includes details such as the size and scale of the project to be constructed, the construction schedule, the equipment fleet, estimates regarding the size of the construction crew, and demolition and grading specifics.

analysis also accounts for energy reductions from weather-based irrigation controls, which would reduce water consumption and therefore indirect energy consumption. Quantifiable features required for compliance with CALGreen (i.e., low-flow fixtures) were also incorporated into the CalEEMod model. Consistent with the capabilities of CalEEMod, the analysis does not quantify the energy reductions that would occur with implementation of the Specific Plan's range of non-transportation-related sustainability features, such as exterior electrical power infrastructure to support electric landscaping equipment, Leadership in Energy and Environmental Design (LEED) Silver rating for buildings, high-efficiency natural gas appliances, and a 10 percent better energy performance compared with an American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 90.1-2010 reference baseline building.

Fuel use was quantified using CalEEMod, version 2016.3.2; CARB's EMFAC2017 emissions model; and daily VMT estimates. VMT estimates were based on the City/County Association of Governments of San Mateo County travel demand model and then modified to account for 1) the VMT reduction associated with the extension of Southline Avenue through the Specific Plan area (see Section 4.15, *Transportation and Circulation*, of this EIR) and 2) the VMT reduction associated with the City's Transportation Demand Management (TDM) Ordinance, under which the project would be required to achieve an alternative mode shift of 45 percent, resulting in a 23 percent reduction in project VMT.<sup>23</sup> Please refer to **Appendix 4.2-1** for the CalEEMod output files and fuel use calculations.

## Phase 1

### Construction

Construction of Phase 1 would require energy usage, such as electricity for mobile offices and fuel for off-road equipment, haul trucks, and vehicles used by vendors and workers. Data regarding total electricity usage during Phase 1 construction was provided by the Phase 1 applicant. Fuel usage was quantified from the construction emissions profile, with construction data (e.g., construction schedule, equipment operating details, trip numbers and lengths, construction quantities) provided by the project applicant. Assuming all off-road activities, hauling, and vendor activities would be carried out with diesel equipment and vehicles and all workers would use gasoline vehicles to travel to and from the Phase 1 site, the annual number of metric tons of carbon dioxide equivalent (CO<sub>2</sub>e) emissions associated with each corresponding construction activity (e.g., off-road equipment, worker trips) can be converted to gallons of diesel or gasoline and summed accordingly.

### Operation

Energy consumption from operational activities associated with buildout of Phase 1 was evaluated using the same methods and models (e.g., CalEEMod) described above for the project.

## 4.5.4.3 Impact Evaluation

**Impact EN-1a: The project would not result in potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during**

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<sup>23</sup> Ibid.

**project construction. (*Project: Less than Significant with Mitigation; Phase 1: Less than Significant with Mitigation*)**

## **Project**

Construction activities associated with the project would result in the temporary usage and consumption of energy resources within the project site. Construction energy use would include the electricity used to power electric construction equipment and mobile offices or deliver water to construction sites, the gasoline and diesel fuel used to transport workers and drive haul trucks to and from construction sites, and the fuel used to operate 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, the length of construction periods, specific construction operations, the types of equipment, and the number of workers, which could result in a significant energy impact if best management practices (BMPs) are not implemented.

Because the timing and intensity of future development projects under the Specific Plan are not yet known, the precise effects of construction activities associated with buildout of the Specific Plan cannot be accurately quantified at this time. However, the types of land uses permitted under the Specific Plan would involve construction activities that are considered typical of development within an urban area. 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. In order to reduce energy consumption during project construction, grid electric power would be used instead of diesel generators for all activities requiring electricity, besides those associated with welding. Furthermore, as discussed in Section 4.7, *Greenhouse Gas Emissions*, all development under the Specific Plan, including Phase 1, would be required to comply with **Mitigation Measure GHG-1**, which would require construction contractors to implement the Bay Area Air Quality Management District's (BAAQMD's) recommended BMPs; these include ensuring that alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet, using local building materials, sourced from within 100 miles of the planning area, for at least 10 percent of construction; and recycling and reusing at least 50 percent of construction waste and demolition materials. Note that BAAQMD's recommended BMP to recycle and reuse at least 50 percent of construction waste or demolition materials is not as rigorous as the City's requirement that new construction submit a Waste Management Plan identifying how at least 65 percent of non-inert project waste materials and 100 percent of inert materials will be diverted from the landfill through recycling and salvage. In addition, as discussed in Section 4.2, *Air Quality*, **Mitigation Measure AQ-4** would require future development under the Specific Plan after Phase 1 to use renewable diesel fuel for all off-road equipment greater than 50 horsepower. These measures would reduce the amount of fossil fuel consumed during construction activities and the energy intensiveness associated with new building materials as well as discarded construction and demolition waste. With incorporation of these mitigation measures, construction under the project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be *less than significant with mitigation*.

## **Phase 1**

The types of construction-related energy consumption under Phase 1 would be similar to those described above for the project. Construction activities under Phase 1 would include the demolition

of all structures within the proposed Specific Plan area; construction of two new office/R&D buildings on the Phase 1 site; construction of an amenities building on the Phase 1 site; and utility relocations, partial construction of a parking structure, intersection and roadway construction, and streetscape and landscape improvements. Construction energy use would include the electricity used to power mobile offices, the gasoline and diesel fuel used to transport workers and drive haul trucks to and from construction sites, and the fuel used to operate off-road equipment. Estimated construction-related energy consumption is provided in **Table 4.5-4**. The table shows that Phase 1 construction would consume approximately 173,253 million BTUs over the 30-month construction period, primarily from diesel-powered sources.

**Table 4.5-4. Estimated Construction Energy Consumption from Phase 1 (MMBTUs)<sup>a</sup>**

Source	Total mBTU
Electricity	789
Fuel – gasoline	11,121
Fuel – diesel	161,343
<b>Total</b>	<b>173,253</b>

Source: Refer to **Appendix 4.2-1** for CalEEMod model outputs and construction energy calculations.

<sup>a</sup>. Emissions represent the sum of emissions from CalEEMod for construction output and energy consumption (approximately 78,000 kilowatt-hours per year) during construction.

Similar to the project, construction of Phase 1 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 as well as the energy intensiveness associated with new building materials and discarded construction and demolition waste by requiring construction contractors to implement BAAQMD's recommended BMPs—specifically, those associated with alternative fuel use and recycling. This impact would be *less than significant with mitigation*.

**Impact EN-1b: The project would not result in potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during project operation. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

Once operational, the project would generate vehicle trips, which would result in gasoline and diesel being consumed. The project would also result in the consumption of electricity and natural gas for operational uses such as electrical power needs, emergency generator operations, heating, cooling, and landscaping. As discussed above, the project's energy consumption is evaluated for the Office Scenario under existing (2018) and buildout-year (2030) conditions with the project. The analysis accounts for benefits achieved by the Specific Plan's requirement for the project to utilize 100 percent carbon-free electricity for all operational electricity needs through participation in programs such as PG&E Solar Choice or Peninsula Clean Energy, as discussed in Chapter 3, *Project Description*, of this EIR. In addition, the analysis accounts for energy reductions from weather-based irrigation controls, which would reduce water consumption and therefore indirect energy consumption. Quantifiable features, such as low-flow fixtures, were also incorporated. The project could achieve additional reductions in energy consumption and usage through 10 percent or better energy performance compared with an ASHRAE 90.1-2010 reference building baseline, LEED Silver or

equivalent certification for buildings, on-site renewable energy and energy storage, and energy-efficient lighting and building designs. However, these strategies were not quantified because the exact number of installed systems and affected structures is currently unknown and not all such measures are mandated by the Specific Plan.<sup>24</sup> Therefore, this analysis may overstate the project's actual operational energy impacts. **Table 4.5-5** presents the results of the operational energy analysis (expressed in terms of million BTU or MMBTU). The project's net energy consumption is determined by taking the difference in operational energy consumption between existing (2018) and proposed (2030) conditions at the Specific Plan area.

**Table 4.5-5. Estimated Operational Net Energy Consumption for the Project**

<b>Analysis Condition/Source</b>	<b>MMBTU/Year</b>
<b>Existing (2018)</b>	
Electricity	5,482
Natural gas	599
Mobile – gasoline	379,136
Mobile – diesel	24,724
<b>Total Existing<sup>a</sup></b>	<b>409,940</b>
<b>Proposed Project Buildout (2030)</b>	
Electricity	148,927
Natural gas	57,062
Mobile – gasoline	646,224
Mobile – diesel	54,503
<b>Total Project Buildout<sup>a</sup></b>	<b>906,716</b>
<b>Net Change with Project</b>	
Existing vs. Proposed	496,776
<b>Energy per Square Foot (MMBTU/sf)</b>	
Existing	1.42
Proposed	0.32

Source: Refer to **Appendix 4.2-1** for CalEEMod model outputs.

Notes:

As noted above, the energy analysis reflects implementation of quantifiable state measures to reduce energy consumption (CALGreen) and Specific Plan features related to the use of green consumer products and installation of high-efficiency fixtures. In addition, for the proposed condition, the energy consumption numbers presented are maximums anticipated under the Office Scenario. Therefore, total energy consumption provided represents the worst-case scenario.

<sup>a</sup>. Values may not add due to rounding.

As shown, buildout of the Specific Plan would increase operational energy consumption at the Specific Plan area by approximately 496,776 million BTUs compared with existing conditions. However, energy usage per square foot would decrease from approximately 1.42 million BTUs per square foot under existing conditions to 0.32 million BTU per square foot under the Specific Plan, despite the nearly tenfold increase in building square footage. This is attributable to the relative

<sup>24</sup> Per the requirements of the Specific Plan, the project would be mandated to achieve additional reductions in energy consumption and usage through 10 percent or better energy performance compared with an ASHRAE 90.1-2010 reference building baseline, and LEED Silver or equivalent certification for buildings.

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 and efficiency mandates. Furthermore, as discussed in Section 4.15, *Transportation and Circulation*, of this EIR, the project would include a TDM Plan designed to meet the 45 percent mode-share target required by the City. The TDM Plan would provide direct access to transit, on-site amenities for bicycle and pedestrian access, shuttle service, carpooling and vanpooling facilities and services, mode shift incentives, and other TDM features, resulting in a reduction in VMT, and, consequently, the amount of energy (i.e., gasoline and diesel) consumed.

Based on the above, buildout of the Specific Plan would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be ***less than significant***. No mitigation is required.

## Phase 1

The types of operational energy consumption under Phase 1 would be similar to those described above for the project. Phase 1's operational energy consumption was evaluated under existing-year (2018) and buildout-year (2024) conditions. The analysis includes implementation of quantifiable measures to reduce energy usage (e.g., CALGreen) as well as the benefits achieved through quantifiable sustainability measures, including the use of weather-based irrigation controls and 100 percent carbon-free electricity for all electricity needs, items that are incorporated into the Phase 1 design. Similar to the project, Phase 1 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 1 operational energy analysis.

**Table 4.5-6**, below, presents the results of the operational energy analysis (expressed in terms of million BTU or MMBTU). Phase 1 net energy consumption is determined by taking the difference in operational energy consumption between existing (2018) and proposed (2024) conditions at the Specific Plan area. Since Phase 1 would demolish all existing uses within the Specific Plan area, netting out the existing energy usage of those uses, Phase 1's operational energy usage is estimated in the context of the Specific Plan area as a whole, rather than just the Phase 1 site.

As shown in Table 4.5-6, buildout of Phase 1 would increase operational energy consumption on the Specific Plan area by approximately 115,369 million BTUs compared with existing conditions. However, energy use per square foot would decrease from approximately 1.42 million BTUs per square foot under existing conditions to 0.75 million BTU per square foot, despite the significant increase in building square footage. This decrease is attributable to the relative energy efficiency of the future buildings and vehicles, as well as energy efficiency measures to be incorporated into Phase 1, as described below.

Phase 1 would meet the United States Green Building Council's LEED v4 Silver or equivalent certification standards, and exceed ASHRAE 90.1-2010 standards by approximately 10 percent. In addition, the design of Phase 1 would incorporate environmentally sustainable design features, including LED lighting, daylighting and occupancy controls, efficient heating and air-conditioning systems, energy-efficient windows, and high-efficiency water fixtures (e.g., toilets, urinals), high-efficiency natural gas appliances, along with other mechanical systems, which would be designed around maximizing energy efficiency and natural lighting. Furthermore, as discussed in Section 4.15, *Transportation and Circulation*, of this EIR, the project would include a TDM Plan designed to meet the 45 percent mode-share target required by the City, and Phase 1 would be subject to the TDM Plan. The TDM Plan would provide direct access to transit, on-site amenities for bicycle and

pedestrian access, shuttle service, carpooling and vanpooling facilities and services, mode shift incentives, and other TDM features, resulting in a reduction in VMT, and, consequently, the amount of energy (i.e., gasoline and diesel) consumed.

**Table 4.5-6. Estimated Operational Net Energy Consumption for Phase 1**

Analysis Condition/Source	MMBTU/Year
<b>Existing (2018)</b>	
Electricity	5,482
Natural gas	599
Mobile – gasoline	379,136
Mobile – diesel	24,724
<b>Total Existing<sup>a</sup></b>	<b>409,940</b>
<b>Proposed Phase 1 Buildout (2024)</b>	
Electricity	16,487
Natural gas	51,470
Mobile – gasoline	424,067
Mobile – diesel	33,285
<b>Total Phase 1 Buildout<sup>a</sup></b>	<b>525,309</b>
<b>Net Change with Phase 1</b>	
Existing vs. Proposed	115,369
<b>Energy per Square Foot (MMBTU/SF)</b>	
Existing	1.42
Proposed	0.75

Source: Refer to **Appendix 4.2-1** 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 to reduce energy consumption (e.g., CALGreen).

<sup>a</sup> Values may not add because of rounding.

Based on the above analysis, operation of Phase 1 would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be ***less than significant***. No mitigation is required.

**Impact EN-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

## Project

The state and local renewable energy and energy efficiency plans that would be applicable to the project are discussed in Section 4.5.3, p. 4.5-6. State plans include the 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 renewable energy development and energy efficiency. Local plans that address energy efficiency, which are designed to achieve the state's RPS mandates, include PG&E's 2020 IRP, PCE's 2018 IRP, and the City's Climate Action Plan. The City's General Plan also includes goals and policies related to energy use and energy reductions.

As discussed above under Impact EN-1, the project would encourage implementation of sustainability and transportation features. Furthermore, energy use per square foot would decrease compared with existing conditions, despite the nearly tenfold 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. Such development would benefit from resulting increases in renewable energy development and energy efficiency. Even with increased VMT and an increase in the number of average daily trips in the area, vehicle and energy use 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 the commercialization of zero-emission vehicles, respectively. Energy efficiency within buildings is also expected to increase as a result of compliance with Title 24 building codes, which are expected to move toward zero net energy for newly constructed buildings and shift toward a 100 percent renewable energy target under SB 350 and SB 100 regulations. With implementation of the Specific Plan, PG&E would continue to pursue the procurement of renewable energy sources to meet its RPS portfolio goals and comply with state regulations. As mentioned in the IRP, PG&E is on track to meet the 2030 target that calls for GHG-free energy emissions. Therefore, the project 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 is required.

## Phase 1

Phase 1 would be consistent with the proposed Specific Plan. In addition, Phase 1 would install energy-efficient appliances, meet the United States Green Building Council's LEED v4 Silver or equivalent certification standards, and exceed ASHRAE 90.1-2010 standards by approximately 10 percent. Phase 1 would incorporate environmental and performative design criteria. Like all development within the Specific Plan, Phase 1 would be required to comply with state and local renewable energy and energy efficiency plans. For the reasons stated above for the project analysis, Phase 1 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 is required.

### 4.5.4.4 Cumulative Impacts

The cumulative geographic context for energy is the service area of PG&E (i.e., the electric and natural gas service area), which comprises the larger Northern California area and the PCE service area.

**Impact C-EN-1: The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. (*Project: Less than Significant; Phase 1: Less than Significant*)**

Continued growth throughout PG&E's service area could contribute to ongoing increases in demand for electricity and natural gas. These anticipated increases would be countered, in part, as state and local requirements related to renewable energy become more stringent and energy efficiency increases. The extent to which cumulative development through 2030, the project's buildout year, could result in the wasteful, inefficient, or unnecessary consumption of energy resources would depend on the specific characteristics of new development, which are not known at this time. As discussed previously, SB 100 obligates utilities to supply 100 percent carbon-free electricity by 2045. PG&E reached California's 2020 renewable energy goal 3 years ahead of schedule and is

currently projected to meet the new SB 100 goal, which calls for 60 percent renewable energy by 2030, ahead of schedule. Similarly, the Pavley standards are expected to increase average fuel economy to roughly 54.5 miles per gallon by 2025, thereby lowering the demand for fossil fuels. Therefore, 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 approximately 496,776 million BTUs compared with existing conditions. However, energy use per square foot would decrease to approximately 0.32 million BTU per square foot from 1.42 million BTUs per square foot under existing conditions, despite the nearly tenfold 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 and efficiency mandates. The Specific Plan encourages building design features that reduce energy consumption and increase renewable energy generation. Because buildout under the Specific Plan, inclusive of Phase 1, 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***.

**Impact C-EN-2: The project, inclusive of Phase 1, together with the cumulative projects identified would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

Cumulative development 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***.

## 4.6 Geology and Soils

### 4.6.1 Introduction

This section evaluates the potential impacts related to construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the proposed project (Phase 1), on geology and soils, including paleontological resources. This section also describes the existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes the *Southline Development Design-Level Geotechnical Investigation* (Design-Level Geotechnical Investigation) prepared for the proposed project by Cornerstone Earth Group in July 2020 (**Appendix 4.6-1**).<sup>1</sup> The study area for the Design-Level Geotechnical Investigation is the Specific Plan area. Given the proximity of the off-site improvement areas to the Specific Plan area, it is assumed that existing conditions and impacts described for the Specific Plan area would be the same or substantially similar at the off-site improvement areas. Therefore, unless otherwise noted, this section applies the findings of the Design-Level Geotechnical Investigation to the project site as a whole.

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. No questions or concerns related to geology and soils were raised in the responses to the NOP.

### 4.6.2 Environmental Setting

This section provides a discussion of the existing conditions related to geology and soils on the project site.

#### 4.6.2.1 Project Site

##### Physiography

The City of South San Francisco is located on the bay plain and the northern foothills of the Coastal Range. The project site is located on the bay plan. The topography of the project site is relatively flat, with a gentle downward slope to the east. The elevation of the site ranges from approximately 17 feet above mean sea level (amsl) (NAVD 88)<sup>2</sup> in the eastern portion to approximately 33 feet amsl in the western portion.

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<sup>1</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>2</sup> The North American Vertical Datum of 1988 (NAVD 88) is the vertical control datum established in 1991 by the minimum-constraint adjustment of the Canadian-Mexican-United States leveling observations. It held fixed the height of the primary tidal bench mark, referenced to the new International Great Lakes Datum of 1985 local mean sea level height value, at Father Point/Rimouski, Quebec, Canada.

## Subsurface Conditions

The principal geologic units underlying the project site are, from top to bottom, artificial fill, Colma Formation, Merced Formation (assumed), and Franciscan Complex. Depth to these layers varies by location where boring was advanced. Generally, artificial fill is underlain by Colma Formation, characterized as friable, well sorted medium sand containing a few beds of sandy silt, clay and gravel. Merced Formation is assumed to underlie the Colma Formation, and the bedrock Franciscan Complex is found at depth.

Artificial fill generally underlies the project site to a depth of 2–5 feet below ground surface (bgs), except at 50 and 54 Tanforan Avenue where artificial fill was discovered to a depth of 22 feet. The fill consists of sandy clay at most of the areas within the project site, and of sandy clay with gravel and asphalt pieces at 50 and 54 Tanforan Avenue. The Colma Formation underlies the artificial fill and consists of soft sandy silty clay, very stiff to hard clay with sand, stiff silt with sand, dense silty sand, and very dense poorly graded sand, depending on location and depth. Merced Formation is assumed to underlie the Colma Formation and consists of a range of sandy clays and sands, generally dense. Colma Formation and Merced Formation together range from approximately 2 feet bgs to 17 feet up to 95 feet bgs, the maximum depth of exploration, depending on location. These sediments and others overlie the bedrock Franciscan Formation, which lies from about 420 feet bgs in the northeast part of the project site to about 540 feet bgs in the southwest.

Depth to groundwater at the proposed project site ranges from approximately 8 to 27 feet bgs.<sup>3</sup> While historic high groundwater levels are not mapped for the project site, groundwater monitoring wells within 500 feet of the site indicated groundwater levels of 5 to 16 feet bgs. Seasonal and ambient changes in water availability can result in changes to the groundwater level.

Sediments above the water table are generally stiff to very stiff clays and medium dense to dense sands. Sediments below the water table include dense sand.

## Primary Seismic Hazards

### Surface Fault Rupture

The project site is not located within a State-designated Alquist-Priolo Earthquake Fault Zone, and no known active or potentially active surface expression of fault traces crosses the site.<sup>4 5</sup> Therefore, the likelihood of surface fault rupture within the project site area is low. However, the project site is located between two active fault zones: the Hayward Fault Zone, located approximately 16 miles east of the project site, and the San Andreas Fault Zone, located approximately 2 miles west of the

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<sup>3</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>4</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>5</sup> Figure 7-2 in the San Bruno General Plan (2009) depicts a “concealed or uncertain fault trace” described as the “San Bruno Fault” traversing north/south along El Camino Real and through the adjacent Shops at Tanforan property. However, according to most recent USGS data, no known or inferred fault is located at or near this location. Source: U.S. Geologic Survey. 2021. U.S. Quaternary Faults. Available here: <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf>. Accessed: June 22, 2021.

project site.<sup>6</sup> In a seismically active area such as the San Francisco Bay Area, the possibility of future surface fault rupture occurring in areas where faults have not been mapped is small, but the possibility exists. **Table 4.6-1** lists the active faults within 20 miles of the project site.

**Table 4.6-1. Active Regional Faults within 20 Miles of the Specific Plan Area**

Fault Name	Distance (miles)
Northern San Andreas	2.1
San Gregorio	7.1
Hayward	16.5

Source: Cornerstone Earth Group 2020.

### Seismic Ground Shaking

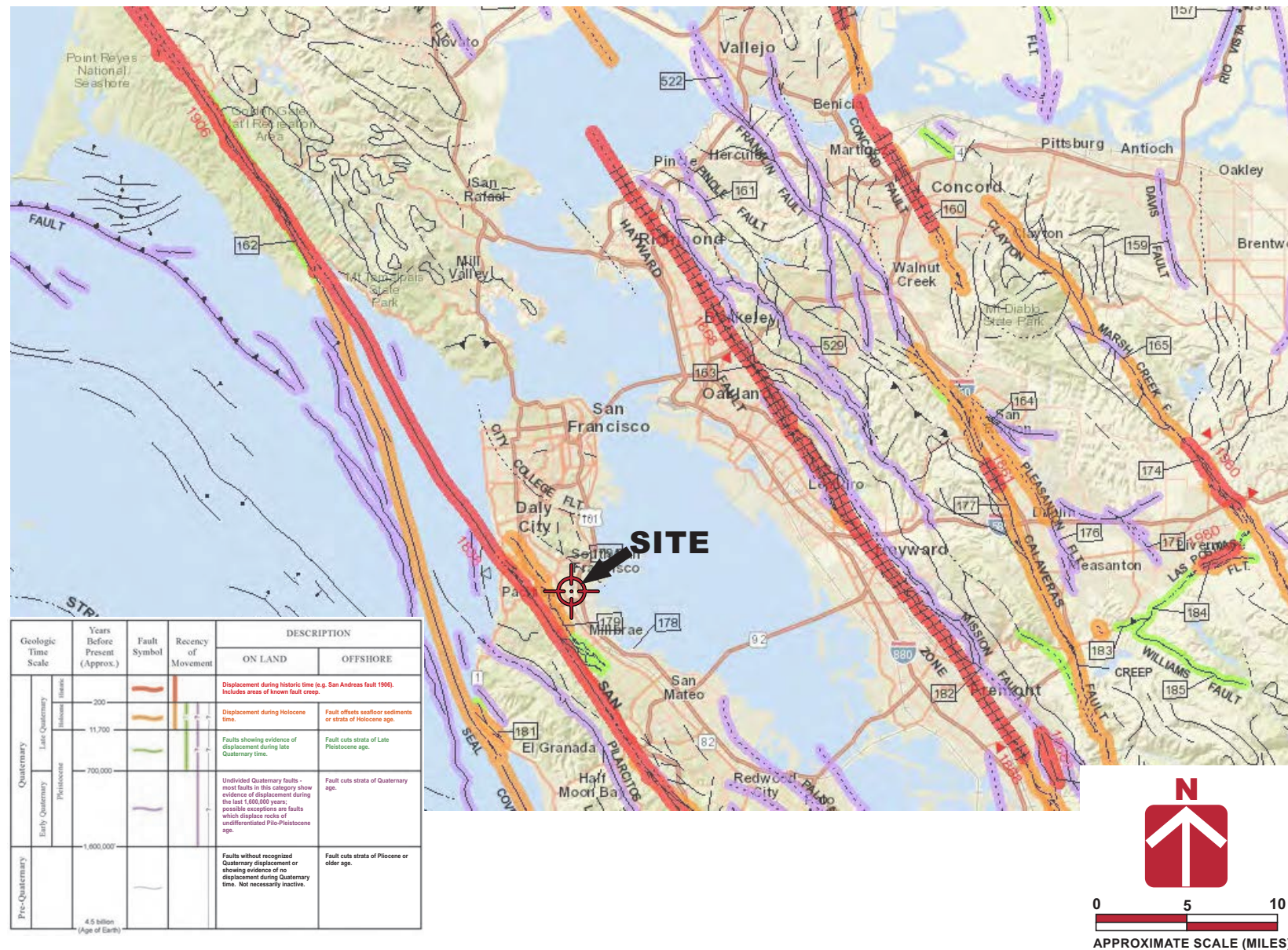
Ground shaking is the most widespread hazardous phenomenon associated with seismic activity. As stated above under *Seismic Fault Rupture*, the project site is located between two active faults, the Northern San Andreas and Hayward faults, each of which is capable of generating a large earthquake<sup>7</sup> (see **Figure 4.6-1, p. 4.6-4**). Because the project site is located within a seismically active area, it will most likely experience periodic minor earthquakes and a major earthquake (i.e., moment magnitude greater than 6) during the operational life of the project. The U.S. Geological Survey has recently updated its 2015 Uniform California Earthquake Rupture Forecast (Version 3), estimating a 72 percent change of one or more magnitude 6.7 earthquakes occurring somewhere in the Bay Area between 2014 and 2043.<sup>8</sup> During a seismic event, the project site could experience “violent shaking” (Modified Mercalli Intensity Shaking Severity Level 9).<sup>9</sup> The intensity of earthquake ground motion at the project site would depend on the characteristics of the generating fault, the distance to the earthquake epicenter, the magnitude, and the duration of the earthquake.

### Secondary Seismic Hazards

#### Liquefaction

Liquefaction occurs when saturated soils lose cohesion, strength, and stiffness with applied shaking, such as that from an earthquake. The lack of cohesion causes solid soil to behave like a liquid, resulting in ground failure. When a load such as a structure is placed on ground that is subject to liquefaction, ground failure can result in the structure sinking and soil being displaced. Ground

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- <sup>6</sup> U.S. Geologic Survey. 2020. U.S. Quaternary Faults. Available here: <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf>. Accessed: September 22, 2020.
- <sup>7</sup> Field, E.H., Biasi, G.P., Bird, P., Dawson, T.E., Felzer, K.R. Jackson, D.D., Johnson, K.M., Jordan, T.H., Madden, C. Michael, A.J., Milner, K.R., Page, M.T., Parsons, T., Powers, P.M., Shaw, B.E., Thatcher, W.R., Weldon, R.J. II, and Zeng, Y. 2015. UCERF3: A New Earthquake Forecast for California’s Complex Fault System. (U.S. Geological Survey Fact Sheet 2015-3009.) Available: <https://pubs.usgs.gov/fs/2015/3009/pdf/fs2015-3009.pdf>. Accessed: February 8, 2021.
- <sup>8</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.
- <sup>9</sup> ABAG. 2020. MTC/ABAG Hazard Viewer Map. <https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8>. Accessed: September 22, 2020.



Source: Cornerstone Earth Group, 2020. Base by California Geological Survey - 2010 Fault Activity Map of California (Jennings and Bryant, 2010)

failure can take on many forms, including flow failures, lateral spreading, lowering of the ground surface, ground settlement, loss of bearing strength, ground fissures, and sand boils. Liquefaction within subsurface layers, which can occur during ground shaking associated with an earthquake, can also result in ground settlement.

The project site is within an area that has not been evaluated for liquefaction by the California Geological Survey.<sup>10</sup> The Health and Safety Element of the General Plan notes that a large portion of the City, primarily east of U.S. 101, is underlain by deposits of bay mud, up to 80 feet deep in some places, that could be subject to liquefaction. However, the project site is located 0.5 mile west of U.S. 101 and is not expected to be underlain with liquefiable soils. As shown in Figure 7-2 in the San Bruno General Plan, the off-site improvement areas in San Bruno's jurisdiction also are not within an area identified as being susceptible to liquefaction. Further, the Design-Level Geotechnical Investigation concluded, based on modeling for the soil types present, that the potential for liquefaction at the project site is very low and were it to occur, resulting settlement would be negligible.<sup>11</sup>

### **Lateral Spreading**

Lateral spreading is a phenomenon in which a surficial soil displaces along a shear zone that formed within an underlying liquefied layer. The surficial blocks are transported downslope or in the direction of a free face, such as a bay or creek, by earthquake and gravitational forces. Lateral spreading is generally the most pervasive and damaging type of liquefaction-induced ground failure generated by earthquakes. As discussed above, the potential for liquefaction at the project site is negligible. In addition, the project site is not located near any open face which would allow for lateral spreading. Therefore, the potential risk of lateral spreading is very low.

### **Seismic Settlement**

Loose unsaturated sandy soils can settle during strong seismic shaking. As discussed above under *Subsurface Conditions*, the soils encountered at the project site above the water table were predominantly stiff to very stiff clays and medium dense to dense sands. Therefore, the potential for differential seismic settlement affecting the proposed improvements is very low to none.

### **Expansive Soils**

Expansive soils can undergo significant volume change with changes in moisture content. Where these soils lie in the zone of seasonal moisture fluctuation,<sup>12</sup> they shrink and harden when dried and expand and soften when wetted. According to the Design-Level Geotechnical Investigation, moderately expansive surficial soils generally blanket the project site.<sup>13</sup> Additionally, as shown in Figure 7-2 in the San Bruno General Plan, the off-site improvement areas in San Bruno's jurisdiction are within areas known to contain expansive soils. Therefore, potential exists for increased risk of injury as a result of construction on expansive soils.

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<sup>10</sup> California Geologic Survey. 2020. Earthquake Zones of Required Investigation. Available: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed: September 22, 2020.

<sup>11</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>12</sup> The zone of seasonal fluctuation is the depth of soil to which moisture penetrates, varying by season.

<sup>13</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

## Landslide

Landslides occur when the stability of a slope changes from a stable to an unstable condition. The stability of a slope is affected by the following primary factors: inclination, material type, moisture content, orientation of layering, and vegetative cover. In general, steeper slopes are less stable than more gently inclined ones. The topography of the project site is relatively flat with a generally gentle downward slope to the east. The Metropolitan Transportation Commission (MTC)/Association of Bay Area Governments (ABAG) Hazard View map show the project site as flat land no risk of landslide.<sup>14</sup> Therefore, the likelihood of a landslide at the project site is low.

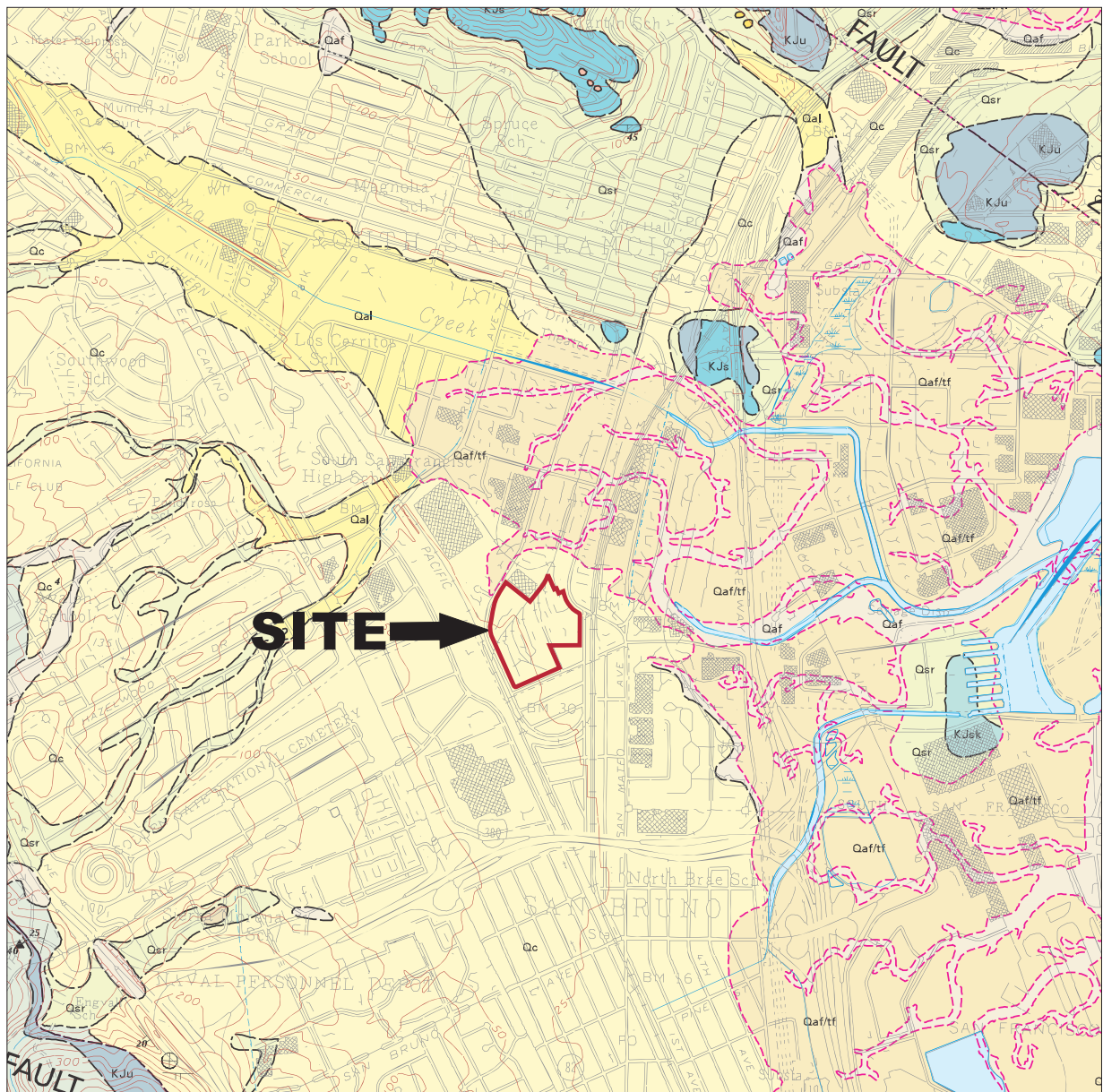
## Paleontological Resources

Paleontological resources are found within geologic units, which can sometimes extend large distances. The relevant unit for identifying likelihood of discovering paleontological resources is the geologic unit rather than proximity.

As discussed above under *Subsurface Conditions*, the surficial geologic unit at the project site is artificial fill to a depth of generally 2 to 5 feet bgs, although boring indicated artificial fill was present at 50 and 54 Tanforan Avenue to a depth of 22 feet bgs.<sup>15</sup> The artificial fill is immediately underlain by Colma Formation (refer to **Figure 4.6-2, p. 4.6-7**).<sup>16,17</sup> The Colma Formation is a Late Pleistocene sedimentary unit that is characterized as friable, well sorted medium sand containing a few beds of sandy silt, clay and gravel. The Colma Formation in this area is likely underlain by the Plio-Pleistocene Merced Formation in the area. The Merced Formation is underlain by Cretaceous Franciscan Complex Sedimentary rock at a depth of approximately 420 to 540 bgs. Bedrock surface contours suggest the depth to Franciscan bedrock in the area of the site may be in the range of about 420 feet bgs in the northeast portion of the site to about 540 feet in the southwest portion of the site. However, these estimates can vary considerably in the area of the project site as the bedrock surface can be highly irregular in the subsurface.

The Colma Formation is known to have yielded vertebrate fossils.<sup>18</sup> At a site on Pacific Avenue in San Francisco, *Mammuthus* (an extinct genus that belongs to the order of trunked mammals, including

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- <sup>14</sup> MTC/ABAG. 2020. Hazard View Map. Available here: <https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8>. Accessed: September 25, 2020.
- <sup>15</sup> Cornerstone Earth Group. 2020. Design-Level Geotechnical Investigation: 30, 50, and 54 Tanforan Avenue, 160 South Linden Avenue, 240 Dollar Avenue, and 325 South Maple Avenue, South San Francisco, California. July 28. Sunnyvale, CA. Prepared for Lane Partners, LLC, Menlo Park, CA.
- <sup>16</sup> Cornerstone Earth Group. 2020. Design-Level Geotechnical Investigation: 30, 50, and 54 Tanforan Avenue, 160 South Linden Avenue, 240 Dollar Avenue, and 325 South Maple Avenue, South San Francisco, California. July 28. Sunnyvale, CA. Prepared for Lane Partners, LLC, Menlo Park, CA.
- <sup>17</sup> Wagner, D.L., E.J. Bortugno, and R.D. McJunkin. 1991. *Geologic Map of the San Francisco-San Jose Quadrangle, California, 1:250,000*. Available: [https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/RGM\\_005A/RGM\\_005A\\_SanFrancisco-SanJose\\_1991\\_Sheet1of5.pdf](https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/RGM_005A/RGM_005A_SanFrancisco-SanJose_1991_Sheet1of5.pdf). Accessed: September 29, 2020.
- <sup>18</sup> Rodda, P.U., and N. Baghai. 1993. Late Pleistocene Vertebrates from Downtown San Francisco, California. *Journal of Paleontology* 67(5):1058–1063.



#### Geologic Units

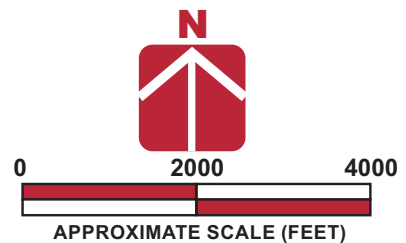
- Qaf/tf** Artificial fill over tidal flat (Holocene)
- Qal** Alluvium (Holocene)
- Qsr** Slope debris and ravine fill (Pleistocene)
- Qc** Colma Formation (Pleistocene)
- KJs** Sandstone and shale, Franciscan Complex (Cretaceous and Jurassic)

#### Explanation

- Contact- dashed where approximate, dotted where concealed

Source: Cornerstone Earth Group, 2020.

Base: USGS, Preliminary Geologic Map of the San Francisco South 7.5' Quadrangle and Part of the Hunter's Point 7.5' Quadrangle, San Francisco Bay Area, California, by M.G. Bonilla, 1998



mammoth) and *Bison* (bison) fossils were recovered. University of California Museum of Paleontology records indicate that remains of *Equus* (horse) have been recovered in South San Francisco.<sup>19</sup>

The Merced Formation, believed to underlie the Colma Formation at the project site, has also yielded vertebrate fossils.<sup>20</sup> Mammalian remains recovered from the Merced Formation include *Mammuthus*, *Magalonyx* (an extinct species of ground sloth), and *Equus*, among others. Bird remains include *Fulmarus* (a genus of sea bird) and *Pramancalla* (a genus of diving bird). Fish remains include cartilaginous fish, including *Cetorhinus* (a genus of shark), *Hexanchus* (a genus of shark), and *Myliobatis* (a genus of ray); as well as bony fish, including *Anarrhichthys* (a genus of eel), *Ophiodon* (a genus of lingcod), and *Sardinops* (a genus of sardine). The University of California Museum of Paleontology indicates that six mammalian species fossils have been recovered from coastal San Mateo County. These include *Enhydra* (sea otters), *Glossotherium* (an extinct genus of ground sloth), and *Mammuthus*.

The bedrock Franciscan Formation underlies all other geologic units at the project site. Paleontological resources records have identified significant fossils in the Franciscan Formation.<sup>21</sup> Vertebrate paleontological resources recovered from this unit include *Ichthyosaurus* (San Joaquin County) and *Plesiosaurus* (San Luis Obispo County). Although vertebrate fossils are uncommon in this geologic unit, fossils have been important in understanding formation of the Franciscan Formation.<sup>22</sup>

#### 4.6.2.2 Phase 1 Site

Geology and soils conditions at the Phase 1 site are the same as those at the project site as a whole. Accordingly, potential for seismic hazards, expansive soils, and landslide are the same as at the project site.

Geologic units at the Phase 1 site are the same as those at the project site as a whole. Accordingly, potential for paleontological resources to be present at the Phase 1 site is the same as at the project site.

### 4.6.3 Regulatory Framework

This section provides a summary of the geology and soils plans and policies of federal, state, and local agencies that have policy and regulatory control over the project site.

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<sup>19</sup> University of California Museum of Paleontology. 2020. *Advanced Specimen Search, San Mateo County*. Available: <https://ucmpdb.berkeley.edu/advanced.html>. Accessed: September 29, 2020.

<sup>20</sup> University of California Museum of Paleontology. 2020. *Advanced Specimen Search, Merced Formation*. Available: <https://ucmpdb.berkeley.edu/advanced.html>. Accessed: September 29, 2020.

<sup>21</sup> University of California Museum of Paleontology. 2020. *Advanced Specimen Search, Franciscan Formation*. Available: <https://ucmpdb.berkeley.edu/advanced.html>. Accessed: September 29, 2020.

<sup>22</sup> Wakabayashi, J. 1992. Nappes, Tectonics of Oblique Plate Convergence, and Metamorphic Evolution Related to 140 Million Years of Continuous Subduction, Franciscan Complex, California. *The Journal of Geology* 100:1(19-40). Chicago, IL: University of Chicago Press.

#### **4.6.3.1 Federal**

##### **Earthquake Hazard Reduction Act of 1977**

Federal laws codified in United States Code Title 42, Chapter 86, were enacted to reduce risks to life and property from earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. Implementation of the requirements are regulated, monitored, and enforced at the state and local levels.

#### **4.6.3.2 State**

##### **The Alquist-Priolo Earthquake Fault Zoning Act of 1972**

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Alquist-Priolo Act) (Public Resources Code Section 2621 et seq.) is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location and construction of most types of structures intended for human occupancy<sup>23</sup> over active fault traces and strictly regulates construction in corridors along active faults. The California state geologist has established regulatory zones along active faults,<sup>24</sup> called “earthquake fault zones,” and published maps that identify areas where surface traces of active faults are present.<sup>25</sup>

##### **Seismic Hazards Mapping Act**

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) directs the California Geological Survey to identify and map areas that are prone to liquefaction and landslides resulting from seismic events. The Act mandates project applicants to have a site-specific geotechnical investigation performed to identify potential seismic hazards and formulate mitigation measures prior to permitting most developments within specific zoned areas.

##### **California Building Standards Code**

The California Building Standards Code, or state building code, is codified in Title 24 of the California Code of Regulations. The state building code provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within the state. The state building code generally applies to all occupancies in California, with modifications adopted in some instances by state agencies or local governing bodies. The current state building code incorporates, by adoption, the 2018 edition of the International Building Code of the International Code Council, with the California amendments. These amendments include building design and construction criteria that have been tailored for California earthquake conditions.

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<sup>23</sup> With reference to the Alquist-Priolo Act, a structure for human occupancy is defined as one “used or intended for supporting or sheltering any use or occupancy that is expected to have a human occupancy rate of more than 2,000 person-hours per year” (CCR, Title 14, Division 2, Section 3601[e]).

<sup>24</sup> An active fault, for the purposes of the Alquist-Priolo Act, is one that has ruptured in the past 11,000 years.

<sup>25</sup> California Geological Survey. 2020. *The Alquist-Priolo Earthquake Fault Zoning Act*. Available: <http://www.conservation.ca.gov/cgs/rghm/ap>. Accessed: September 3, 2021.

Chapter 16 of the state building code deals with structural design requirements governing seismically resistant construction (Section 1604), including, but not limited to, factors and coefficients used to establish a seismic site class and seismic occupancy category appropriate for the soil/rock at the building location and the proposed building design (Sections 1613.5 through 1613.7). Chapter 18 includes, but is not limited to, the requirements for foundation and soil investigations (Section 1803); excavation, grading, and fill (Section 1804); allowable load-bearing values of soils (Section 1806); foundation and retaining walls (Section 1807); and foundation support systems (Sections 1808 through 1810). Chapter 33 includes, but is not limited to, requirements for safeguards at work sites to ensure stable excavations and cut-and-fill slopes (Section 3304) as well as the protection of adjacent properties, including requirements for noticing (Section 3307). Appendix J of the state building code includes, but is not limited to, grading requirements for the design of excavation and fill (Sections J106 and J107), specifying maximum limits on the slope of cut-and-fill surfaces and other criteria, required setbacks and slope protection for cut-and-fill slopes (Section J108), and erosion control through the provision of drainage facilities and terracing (Sections J109 and J110).

### California Division of Occupational Safety and Health Regulations

Construction activities are subject to occupational safety standards pertaining to excavation, shoring, and trenching, as specified in California Division of Occupational Safety and Health regulations (Title 8).

### State Historic Significance Criteria

As discussed in Section 4.6.4.1, *Significance Criteria*, Appendix G of the California Environmental Quality Act (CEQA) Guidelines includes the following question: “Would the project directly or indirectly destroy a unique paleontological resource or site?” Although CEQA does not define what constitutes “a unique paleontological resource or site,” Section 21083.2 defines *unique archaeological resources* as “an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.”

This definition is equally applicable to recognizing a unique paleontological resource or site. CEQA Section 15064.5(a)(3)(D) provides additional guidance, indicating that, generally, a resource shall be considered historically significant if it has yielded, or may be likely to yield, information important in prehistory or history.

The CEQA lead agency having jurisdiction over a project is responsible for ensuring that paleontological resources are protected in compliance with CEQA and other applicable statutes. Public Resources Code Section 21081.6, Mitigation Monitoring Compliance and Reporting, requires the CEQA lead agency to demonstrate project compliance with the mitigation measures developed during the environmental impact review process.

### 4.6.3.3 Local

#### South San Francisco General Plan

The 1999 South San Francisco General Plan provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The City General Plan provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The City General Plan contains a Health and Safety Element, which acknowledges and mitigates the risks posed by hazards (e.g., geologic and seismic). The City General Plan includes the following policy applicable to seismic activity and geologic hazards:

- Policy 8.1-G-1: Minimize the risk to life and property from seismic activity and geologic hazards in South San Francisco.

The General Plan includes no policies relevant to paleontological resources.

#### City of South San Francisco Building Code

The City Building Division enforces the minimum standards found in the various codes adopted by the state through the Building Standards Commission and as adopted and amended by the City Council. In particular, the City adopted by reference the California Building Standards Code, volumes 1 and 2 (2019 edition), as the building code for the city of South San Francisco, codified as Title 15 to the South San Francisco Municipal Code.<sup>26</sup>

#### Other Titles of the City of San South San Francisco Municipal Code

The City has adopted requirements to regulate excavation and construction on public property, codified as Chapter 13.04 to the South San Francisco Municipal Code. The municipal code requires that excavation and construction must adhere to certain conditions, including adhering to applicable restrictions and requirements for excavation and grading as imposed by the Uniform Building Code (enforced through adoption of the California Building Standards Code), disposing of constructed or excavated materials, adhering to maximum or minimum slopes to be used, adhering to requirements for degree of compaction of fill immaterial, and adhering to requirements for safe and adequate drainage of the site.<sup>27</sup>

The City Municipal Code does not reference paleontological resources or fossil resources.

#### San Bruno Plans and Policies

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno (San Bruno) but would not develop any new structures or new land uses in San Bruno. The improvements would occur on areas that are already developed with existing circulation

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<sup>26</sup> South San Francisco Municipal Code Section 15.08.010.

<sup>27</sup> South San Francisco Municipal Code Section 13.04.040.

improvements. The specific off-site improvements located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. This section identifies and evaluates the proposed project's consistency with relevant policies from the San Bruno General Plan and the San Bruno Municipal Code related to geology and soils as related to the portions of the off-site improvements located within San Bruno's jurisdiction. For additional discussion of the proposed project's consistency with San Bruno land use plans and policies, refer to Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*.

### San Bruno General Plan

The 2009 San Bruno General Plan outlines a vision for the long-range physical and economic development of the community through 2025. The San Bruno General Plan contains a Health & Safety Element, which acknowledges and mitigates the risks posed by hazards (e.g., earthquake).<sup>28</sup> The San Bruno General Plan includes the following policies applicable to seismic and geologic hazards that are relevant to the proposed off-site improvements in San Bruno's jurisdiction:

- Policy HS-1: Regulate development ... to assure adequate mitigation of safety hazards on sites having a history of threat of slope instability, erosion, subsidence, seismic dangers (including those resulting from liquefaction, ground failure, ground rupture)[...]
- Policy HS-3: Require geotechnical investigation of all sites, except single-family dwellings, proposed for development in areas where geologic conditions or soil types are subject to landslide risk, slippage, erosion, liquefaction, or expansive soils[...]
- Policy HS-4: Prevent soil erosion by retaining and replanting vegetation and by siting development to minimize grading and land form alterations.
- Policy HS-5: Require preparation of a drainage and erosion control plan for land alteration and vegetation removal on sites greater than 10,000 sq. ft. in size.
- Policy HS-7: Development in areas subject to seismic hazards, including ground shaking, liquefaction, and seismically induced landslides (Figure 7-2... will comply with guidelines set forth in the most recent version of the California Division of Mines and Geology Special Publication 117.
- Policy HS-9: In accordance with the Alquist-Priolo Special Studies Zones Act, do not permit structures across an active fault (Figure 7-2) or within 50 feet of an active fault, except single-family wood frame dwellings where no other location on a lot is feasible. Require any new development to contract with geotechnical engineers to reduce potential damage from seismic activity.
- Policy HS-10: Recommend a geologic report by a qualified geologist for construction or remodeling of all structures, including single-family dwellings, proposed within 100 feet of a historically active or known active fault (Figure 7-2). Geologic reports should recommend minimum setbacks, siting and structural safety standards, to reduce potential seismic hazards.

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<sup>28</sup> City of San Bruno. 2009. General Plan: Health & Safety Element. Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24020>. Accessed: November 10, 2020.

Geologic reports must be filed with the State Geologist by the City of San Bruno within 30 days of receipt.

The San Bruno General Plan also contains an Environmental Resources and Conservation Element, which prescribes mitigation for grading or construction on geologic units sensitive for paleontological resources.<sup>29</sup>

- Policy ERC-45: If, prior to grading or construction activity, an area is determined to be sensitive for paleontological resources, retain a qualified paleontologist to recommend appropriate actions. Appropriate action may include avoidance, preservation in place, excavation, documentation, and/or data recovery, and shall always include preparation of a written report documenting the find and describing steps taken to evaluate and protect significant resources.

#### **City of San Bruno Building Code**

The Building Division of the City of San Bruno enforces the minimum standards found in the various codes adopted by the state through the Building Standards Commission and as adopted and amended by the San Bruno City Council. In particular, the City of San Bruno adopted by reference the California Building Standards Code (2019 edition) as the building code for the city.<sup>30</sup>

#### **San Bruno Municipal Code**

The San Bruno Municipal Code does not reference paleontological resources or fossil resources except for those that may occur in recreational facilities such as parks and trails.<sup>31</sup>

## **4.6.4 Impacts and Mitigation Measures**

This section describes the impact analysis related to geology and soils for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

### **4.6.4.1 Significance Criteria**

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant geology and soils impact if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42;
  - Strong seismic ground shaking;

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<sup>29</sup> City of San Bruno. 2009. General Plan: Environmental Resources & Conservation Element. Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24019>. Accessed: November 10, 2020.

<sup>30</sup> City of San Bruno. n.d. Building Division. Available: [https://www.sanbruno.ca.gov/gov/city\\_departments/commdev/building\\_division/](https://www.sanbruno.ca.gov/gov/city_departments/commdev/building_division/). Accessed: August 30, 2021.

<sup>31</sup> San Bruno Municipal Code 9.20.040 Prohibited acts.

- Seismic-related ground failure, including liquefaction;
- Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water; or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

#### 4.6.4.2 Approach to Analysis

##### Geology, Soils, and Seismicity

Evaluation of the project and Phase 1 development is based on the Design-Level Geotechnical Investigation prepared for the project, unless otherwise noted.<sup>32</sup> The Design-Level Geotechnical Investigation provided design-level analysis for the parcels comprising the Specific Plan area inclusive of Phase 1. The Design-Level Geotechnical Investigation included field and laboratory programs to evaluate physical and engineering properties of the subsurface soils as well as engineering analysis to prepare recommendations for site work and grading, building foundations, flatwork, temporary shoring and dewatering, retaining walls, and pavements. While the Design-Level Geotechnical Investigation did not cover the off-site improvement areas, given the close proximity of the off-site improvement areas to the Specific Plan area, it is assumed that similar conditions apply to these areas. Therefore, existing conditions and impacts are described for the project site as a whole. The geotechnical investigation concluded that the proposed project is feasible from a geotechnical standpoint, provided the recommendations included in the investigation are incorporated into project plans and specifications.

In the *California Building Industry Association v. Bay Area Air Quality Management District* case, decided in 2015,<sup>33</sup> the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might affect a project, except where the project would significantly exacerbate an existing environmental condition. Accordingly, placing new development in an existing or future seismic hazard area or an area with unstable soils is not considered an impact under CEQA unless the project would significantly exacerbate the seismic hazard or unstable soil conditions. Therefore, the analysis below evaluates whether the proposed project would exacerbate existing or future seismic hazards or unstable soils at the project site and result in a substantial risk of loss, injury, or death.

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<sup>32</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>33</sup> *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369. Opinion filed December 17, 2015. Available: <https://caselaw.findlaw.com/ca-supreme-court/1721100.html>. Accessed: August 30, 2021.

## Paleontological Resources

The *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (Procedures)<sup>34</sup> of the Impact Mitigation Guidelines Revision Committee of the Society of Vertebrate Paleontology include procedures for the investigation, collection, preservation, and cataloging of fossil-bearing sites. This includes the designation of paleontological sensitivity. The Procedures are widely accepted among paleontologists and followed by most investigators. The Procedures identify two key phases of paleontological resource protection: (1) assessment and (2) implementation. Assessment involves identifying the potential for a project site or area to contain significant, nonrenewable paleontological resources that could be damaged or destroyed by project excavation or construction. Implementation involves formulating and applying measures to reduce such adverse effects.

For the assessment phase, the Society of Vertebrate Paleontology uses one of four sensitivity categories for sedimentary rocks (i.e., high, undetermined, low, no potential) to define the level of potential.<sup>35</sup>

- **High Potential.** Assigned to geologic units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered as well as sedimentary rock units suitable for the preservation of fossils (middle Holocene and older fine-grained fluvial sandstones, fine-grained marine sandstones, etc.). Paleontological potential refers to the potential for yielding abundant fossils, a few significant fossils, or recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data.
- **Undetermined Potential.** Assigned to geologic units for which little information is available concerning their paleontological content, geologic age, and depositional environment. In cases where no subsurface data already exist, paleontological potential can sometimes be assessed by subsurface site investigations.
- **Low Potential.** Field surveys or paleontological research may determine that a geologic unit has low potential for yielding significant fossils (e.g., basalt flows).
- **No Potential.** Some geologic units have no potential to contain significant paleontological resources (e.g., high-grade metamorphic rocks [gneisses and schists] and plutonic igneous rocks [granites and diorites]).

The methods used to analyze potential impacts on paleontological resources and develop mitigation for the identified impacts followed the Society of Vertebrate Paleontology's Procedures.

- **Assessment**
  - Identify the geologic units that would be affected by the project, based on the project's depth of excavation—either at the ground surface or below the ground surface, defined as at least 5 feet bgs.
  - Evaluate the potential of the identified geologic units to contain significant fossils (paleontological sensitivity).

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<sup>34</sup> Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available: [http://vertpaleo.org/Membership/Member-Ethics/SVP\\_Impact\\_Mitigation\\_Guidelines.aspx](http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx). Accessed: September 29, 2020.

<sup>35</sup> Ibid.

- Identify impacts on paleontologically sensitive geologic units as a result of near-term and longer-term construction and operation that involve ground disturbance.
- Evaluate impact significance.
- Implementation
  - According to the identified degree of sensitivity, formulate and implement measures to mitigate potential impacts.

The potential of the project to affect paleontological resources is related to ground disturbance. Geologic units at the project site were identified through California Geological Survey regional maps.<sup>36</sup> A determination regarding the presence of paleontological resources in the units was based on the fossil record, as documented by the University of California Museum of Paleontology.<sup>37</sup>

After the records search, the paleontological sensitivity of the units was assessed according to the Procedures.<sup>38</sup>

For the purposes of this analysis, an impact on paleontological resources was considered significant, thereby requiring mitigation, if it would result in any of the following:

- Damage to, or destruction of, vertebrate paleontological resources.
- Damage to, or destruction of, any paleontological resource that:
  - Provides important information about evolutionary trends, including the development of biological communities;
  - Demonstrates unusual circumstances in the history of life;
  - Represents a rare taxon or a rare or unique occurrence;
  - Is in short supply and in danger of being destroyed or depleted;
  - Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
- Provides information used to correlate strata for which it may be difficult to obtain other types of age information.

### **Buildout Scenario Studied (Office Scenario)**

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the proposed project would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under

<sup>36</sup> Wagner, D.L., E.J. Bortugno, and R.D. McJunkin. 1991. *Geologic Map of the San Francisco-San Jose Quadrangle, California, 1:250,000*. Available: [https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/RGM\\_005A/RGM\\_005A\\_SanFrancisco-SanJose\\_1991\\_Sheet1of5.pdf](https://www.conservation.ca.gov/cgs/Documents/Publications/Regional-Geologic-Maps/RGM_005A/RGM_005A_SanFrancisco-SanJose_1991_Sheet1of5.pdf). Accessed: September 29, 2020.

<sup>37</sup> University of California Museum of Paleontology. 2020. *Advanced Specimen Search, San Mateo County*. Available: <https://ucmpdb.berkeley.edu/advanced.html>. Accessed: September 29, 2020.

<sup>38</sup> Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available: [http://vertpaleo.org/Membership/Member-Ethics/SVP\\_Impact\\_Mitigation\\_Guidelines.aspx](http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx). Accessed: September 29, 2020.

the proposed project: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyzes the buildout scenario that represents the “worst-case” scenario for the resources area being analyzed. The “worst-case” scenario is the scenario with the greatest potential to result in significant impacts.

A project’s geological impacts are site-specific, and analysis of the potential impacts related to geology, soils, and paleontology is dependent on a number of factors, including the project location, the amount of ground that would be disturbed, the type of disturbance, the potential depth of excavation, and other factors. The two buildout scenarios would occur on the same parcels – within the Specific Plan area and the off-site improvement areas – so they present no difference in location that would impact the analysis. While the two potential buildout scenarios are similar in building footprint and lot coverage, the Office Scenario has the greatest building footprint (543,315 square feet versus 531,765 square feet) and lot coverage (49 percent versus 46 percent). While both scenarios would have the same area of ground disturbance (1,435,737 square feet) and maximum depth of excavation (31 feet below grade surface), the Office Scenario would result in a greater excavation volume than the Life Sciences Scenario (688,400 cubic yards versus 353,700 cubic yards, most of this quantity to be off-hauled). Therefore, the Office Scenario has a greater potential to result in significant geological and paleontological resource impacts and is analyzed as the “worst-case” scenario.

#### 4.6.4.3 Impact Evaluation

**Impact GEO-1: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides. (Project: Less than Significant; Phase 1: Less than Significant)**

##### Project (Inclusive of Phase 1)

###### Fault Rupture

As discussed in Section 4.6.2, *Environmental Setting*, under *Primary Seismic Hazards*, the project site is not within an Alquist-Priolo earthquake fault zone, and no known potentially active fault exists in the vicinity of the project site. In addition, the geotechnical investigation found no evidence of active faulting on the project site and concluded that the risk of surface faulting and consequent secondary failure from previous unknown faults is very low. Therefore, the project, inclusive of Phase 1, would not exacerbate the risk of surface fault rupture. This impact would be **less than significant**. No mitigation is required.

###### Ground Shaking

As discussed in Section 4.6.2, *Environmental Setting*, under *Primary Seismic Hazards*, the project site is in a seismically active area. The project site is expected to experience periodic minor earthquakes and a major earthquake (i.e., moment magnitude greater than 6) during the operational life of the project.<sup>39</sup> The Design-Level Geotechnical Investigation recommended, based on site-specific

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<sup>39</sup> A “strong” earthquake is defined on the Modified Mercalli Intensity scale as an VI. It would be felt by all and cause damage to weak plaster, adobe buildings, and some masonry buildings. A “violent” earthquake is defined on the Modified Mercalli Intensity scale as a IX. It could cause some masonry buildings to collapse and other buildings shift off their foundations (see <http://resilience.abag.ca.gov/shaking/mmi/>).

investigation, that the project site be classified as Soil Classification D, which is described as a “stiff soil” profile. The proposed project would comply with the California Building Standards Code’s seismic requirements for the applicable soil classification, as enforced through the South San Francisco Building Code and (for the off-site improvements in San Bruno’s jurisdiction) the San Bruno Building Code. These requirements were established to reduce risks to life from damage to newly constructed buildings due to seismic hazards. Therefore, the project, inclusive of Phase 1, would not exacerbate the risk of ground shaking resulting from a seismic event. This impact would be **less than significant**. No mitigation is required.

### **Soil Liquefaction, Lateral Spreading, and Seismic Settlement**

As discussed in Section 4.6.2, *Environmental Setting*, under *Secondary Seismic Hazards*, risk of seismically induced liquefaction and associated settlement, lateral spreading, and seismic settlement is low at the project site. In addition, the proposed project would comply with the California Building Standards Code’s seismic requirements, as enforced through the South San Francisco Building Code, as well as the San Bruno Building Code for the off-site improvements in San Bruno’s jurisdiction. These requirements which were established to reduce risks to life from damage to newly constructed buildings due to seismic hazards. Therefore, the project would not exacerbate the risk of liquefaction and associated settlement, lateral spreading, and seismic settlement resulting from a seismic event. This impact would be **less than significant**. No mitigation is required.

### **Seismically Induced Landslide**

As discussed in Section 4.6.2, *Environmental Setting*, under *Landslide*, the project site is located on flat land and a gentle slope. It is not located in a landslide risk area; therefore, the potential for a landslide occurring at or near the project site is low. The project would comply with standard regulatory requirements—including completion of a detailed geotechnical investigation required by the California Building Code, which are adopted by reference under the South San Francisco Building Code and the City of San Bruno Building Code. Therefore, the project would result in a **less-than-significant** impact related to landslides. No mitigation is required.

**Impact GEO-2: The project would not result in substantial soil erosion or the loss of topsoil. (Project: Less than Significant; Phase 1: Less than Significant)**

### **Project (Inclusive of Phase 1)**

The project site slopes gently from west to east and lies, as discussed in Section 4.6.2, *Environmental Setting*, between 17 and 33 feet above mean sea level. Construction of the proposed project (inclusive of the off-site improvement areas) would require grading or disturbing an area of approximately 33 acres and excavating up to approximately 688,400 cubic yards of soil. While the proposed project would involve changes to the existing grade, no unprotected, exposed soils at risk of substantial erosion would remain on the project site. The utility and circulation improvements proposed for the off-site improvement areas would involve surface grading and trenching for utilities but would not involve major excavation.

As discussed in Section 4.9, *Hydrology and Water Quality*, construction activities associated with the proposed project must comply with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, the Municipal Regional Permit (MRP), the City’s General Plan and Municipal Code, and, in the case of the off-site improvement areas in San Bruno, the City of San Bruno’s General Plan and Municipal Code. These requirements include preparation and

implementation of a stormwater pollution prevention plan (SWPPP) that incorporates best management practices (BMPs), such as the installation of erosion control measures (e.g., silt fences, staked straw bales/wattles, silt/sediment basins or traps), geofabric, sandbag dikes, covers for stockpiles, or storage precautions for outdoor material storage areas.

In addition, implementation of the proposed project would involve a change in the proportion of impervious and pervious surfaces from 94 percent impervious/6 percent pervious to 77 percent impervious/23 percent pervious, therefore resulting in an increase in pervious surface area across the project site (see Section 4.9, *Hydrology and Water Quality*). Site grading within the Specific Plan area would create two drainage areas to provide appropriate drainage for Specific Plan development: Drainage Area A, which drains to the south and corresponds with the portion of the Phase 1 site located in the Specific Plan area, and Drainage Area B, which drains to the north and corresponds with the future phases in the Specific Plan area. Consistent with C.3 requirements in the MRP and the City of South San Francisco requirements, stormwater runoff from the Specific Plan area will be treated through low impact development (LID) methods, which may consist of bioretention basins, flow through planters, pervious permeable pavements, and other site design features intended to manage stormwater runoff flows from the Specific Plan area and to reduce stormwater pollution. Off-site storm water treatment methods would also comply with C.3 requirements in the MRP and local stormwater requirements of the jurisdiction in which the improvements are located. These project features would avoid substantial soil erosion by implementing measures that would provide adequate drainage and stormwater runoff flow management for surface water.

The proposed improvements within the City of South San Francisco would comply with the City of South San Francisco's standard conditions of approval and grading permit requirements. The City of South San Francisco's grading permit requires applicants to have erosion control measures in place, such as de-silting basins, silt fences, asphaltic emulsions, hay bales, fabric and sand filters, swales, and/or sumps. In the case of the off-site improvement areas in San Bruno, the City of San Bruno's conditions of approval require a grading permit prior to any on-site grading activity. The City of San Bruno's grading permit requires applicants to install sandbags or other erosion control measures to prevent silt runoff to public roadways. In addition, all construction activities would comply with standard construction BMPs.

Therefore, with adherence to the BMPs included in the SWPPP, compliance with the City of South San Francisco's standard conditions of approval and the City of San Bruno's conditions of approval regarding grading, compliance with City of South San Francisco's and City of San Bruno's requirements for grading permits, adherence to standard construction BMPs, and compliance with the California Building Standards Code, impacts related to the proposed project's potential to result in substantial soil erosion would be ***less than significant***. No mitigation is required.

**Impact GEO-3: The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

## **Project (Inclusive of Phase 1)**

### **Unstable Soils as a Result of High Groundwater**

As discussed in Section 4.6.2, *Environmental Setting*, the depth to groundwater on the project site ranges from approximate 8 to 27 feet bgs. The Design-Level Geotechnical Investigation prepared for the project recommends a high groundwater level of 8 feet be used for project design. Deep excavations proposed within the Specific Plan area may extend into saturated clay and sand that may be too saturated to hold an applied load. Heavy construction equipment could potentially make this material unstable. Therefore, as discussed in the Design-Level Geotechnical Investigation, temporary dewatering is recommended during construction of buildings within the Specific Plan area to a depth of at least 5 feet below the bottom of the building foundation.<sup>40</sup> A bridging layer, such as crushed rock, may also be needed below the foundation. Shoring and tie backs may also be necessary during construction. Specifically, the Design-Level Geotechnical Investigation recommends that excavations less than 30 feet deep be supported by soldier beams and tiebacks, sheet piles, or soil mixed walls with internal bracing or tiebacks, or other methods. Excavations greater than 30 feet deep should be shored with less pervious walls consisting of soldier pile tremie concrete (SPTC) or mixed-in-place soil/cement. Below-grade parking level walls within the Specific Plan area would need to be permanently waterproofed and designed for earth pressures that include hydrostatic pressure. Dewatering would not be required for construction in off-site improvement areas. As discussed above, issuance of a grading permit from the Cities of South San Francisco and/or San Bruno, for grading work with each respective jurisdiction, would be required prior to commencing grading activity. Both jurisdictions require preparation of a geotechnical report prior to commencing grading or excavation activity which would further analyze the risk of instability resulting from excavations in areas with high ground water and would provide recommendations for dewatering, shoring, and waterproofing, as may be required. Compliance with the above Design Level Geotechnical Investigation recommendations and grading permit requirements, which would be required as conditions of approval for the proposed project and future development under the Specific Plan, would reduce any risk related to unstable soils as a result of high groundwater levels to a ***less-than-significant*** level. No mitigation is required.

### **Subsidence as a Result of Dewatering**

The proposed project includes excavation activity and development of subterranean parking facilities within the Specific Plan area at a maximum depth of 31 feet bgs. The design groundwater depth of 8 feet bgs, the shallowest depth to groundwater encountered during subsurface investigations, was used for geotechnical analysis.<sup>41</sup> High ground water levels can have impacts on grading which may require dewatering. Because the depth to groundwater is above the maximum depth of excavation (31 feet bgs for Phase 1), dewatering during construction of below-grade

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<sup>40</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>41</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

facilities, specifically the subterranean parking structures, would be required. No dewatering would be required in the off-site improvement areas in the City of San Bruno.

Dewatering, if it is extensive, can result in subsidence. Assuming the groundwater drawdown will be from the design high groundwater level of 8 feet bgs down to 5 feet below the bottom of the excavations within the Specific Plan area, the geotechnical report prepared for the project estimated that settlement as a result of subsidence of the ground surface could be 1.5 to 2 inches for the areas of deepest excavations.<sup>42</sup> However, this potential for subsidence is not anticipated to result in soils becoming unstable as a result of the project dewatering. The City of South San Francisco, in connection with issuance of grading permits for work within the Specific Plan area, would evaluate whether alternative shoring methods such as tied back slurry walls or soil mixed curtain walls should be utilized to reduce the potential for subsidence.<sup>43</sup>

Prior to commencing applicable grading activities, the proposed project would be required to secure a grading permit from the City of South San Francisco for work within its jurisdiction and/or the City of San Bruno for work within its jurisdiction, depending on the location. These grading permits require a soils report and a geotechnical report for issuance of the grading permit. The geotechnical report would address then need for dewatering, shoring, and/or waterproofing measures as may be required. The project would be required, through conditions of approval, to comply with the recommendations in the soils report and geotechnical investigation regarding the design of foundations, floor slabs, and other geotechnical aspects of this project. In addition, the proposed project would comply with applicable regulations required by the California Building Code, which are adopted by reference under the South San Francisco Building Code and the City of San Bruno Building Code, as applicable for work conducted within each respective city. Therefore, impacts related to potential settlement and subsidence due to dewatering related to project construction in soil that is unstable, or could become unstable as a result of such construction, would be ***less than significant***. No mitigation is required.

### **Static Settlement as a Result of Structural Loads**

The project would construct commercial buildings ranging up to seven stories and a parking garage up to nine stories over one or two levels of below-ground parking. When vertical stresses resulting from the structural loads of buildings are applied to soft or loose soil strata, the compression can result in static settlement. The Design Level Geotechnical Investigation found that construction of the project could result in between  $\frac{3}{4}$  to 1 inch of total settlement, depending on the structure and the specific location within the project site. This amount of settlement is typically tolerable on shallow foundations, and the Design Level Geotechnical Investigation concluded that mat foundation<sup>44</sup> would provide a feasible support for the proposed buildings. In addition, the Design Level Geotechnical Investigation found undocumented fill between 2 to 5 feet in some borings and as far as 22 feet bgs at the 50 and 54 Tanforan Avenue location. If undocumented fill is not replaced by engineered soils, it has the potential to exacerbate static settlement; therefore, the Design Level Geotechnical Investigation recommended that undocumented fill be replaced by engineered fill in

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<sup>42</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>43</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>44</sup> A mat foundation is a continuous thick concrete slab on the soil that supports the structure constructed on it and that increases the soil bearing capacity.

order to avoid impacts related to static settlement. As discussed above, the project would be required to prepare a geotechnical report which would further analyze the risk of static settlement and would provide recommendations in terms of foundation design which would reduce any risk to a ***less-than-significant*** level. No mitigation is required.

**Impact GEO-4: The project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. (Project: Less than Significant; Phase 1: Less than Significant)**

### **Project (Inclusive of Phase 1)**

As discussed in Section 4.6.2, *Environmental Setting*, the project site, including the off-site improvement areas in San Bruno, includes soils with a moderate expansion potential. Expansive soils may also underlie surficial soils.

The project has been designed to respond to existing soil conditions by incorporating recommendations from the Design-Level Geotechnical Investigation. To address the potential impact of expansive soils, the Design-Level Geotechnical Investigation recommended that slabs-on-grade should be constructed with sufficient reinforcement and be supported on a layer of non-expansive fill to reduce potential damage to the planned structures from expansive soils. The Design-Level Geotechnical Investigation further recommended that footings extend below the zone of seasonal moisture fluctuation and stressed the importance of using drainage to limit moisture changes in surficial soils. The project would comply with standard regulatory requirements—including completion of a detailed geotechnical investigation as may be required for issuance of grading permits, and compliance with the California Building Code, which is adopted by reference under the South San Francisco Building Code and the City of San Bruno Building Code. Therefore, the project would result in a ***less-than-significant impact*** related to expansive soils. No mitigation is required.

**Impact GEO-5: The project would not have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. (Project: No Impact; Phase 1: No Impact)**

### **Project (Inclusive of Phase 1)**

The proposed project would connect to South San Francisco's sewer and stormwater collection and treatment system, including certain upgrades and modifications to that system, as described in Chapter 3, *Project Description*. Therefore, the proposed project, inclusive of Phase 1, would not use a septic or alternative water disposal system and would have ***no impact*** relating to such systems. No mitigation is required.

**Impact GEO-6: The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Project: Less than Significant with Mitigation; Phase 1: Less than Significant with Mitigation)**

As discussed in Section 4.6.2, *Environmental Setting*, under *Paleontological Resources*, geologic units underlying the project site, specifically the Colma Formation and Merced Formation, are known to have yielded significant vertebrate fossils. Therefore, the paleontological sensitivity of these geologic units is considered to be high, and these geologic units have the potential to contain significant fossils at the project site. Although the project site is already substantially disturbed and

contains artificial fill, in certain portions of the project site, artificial fill extends as little as 2 feet bgs, at which point native sediments are encountered.

Because paleontological resources are located below the ground surface, ground disturbances such as excavating, grading, and resurfacing could affect any paleontological resources that may be present. Therefore, it is possible for construction activities affecting areas at a depth greater than 2 feet bgs to directly or indirectly destroy any paleontological resources within the project site.

## Project

Excavation for the new subterranean parking garage is proposed to a depth of 31 feet bgs. Across the project site, an estimated 1,435,737 square feet of ground surface would be disturbed. In addition, shallow ground disturbance associated with the improvements in the off-site improvement areas (discussed in Section 3.6.2, *Project Characteristics*, in Chapter 3, *Project Description*) may reach depths greater than 2 feet bgs and therefore has potential to disturb paleontological resources, including direct or indirect destruction. An estimated 688,400 cubic yards of soil would be excavated. In addition, utility and circulation improvements in the off-site improvement areas would require surface grading and trenching for utilities.

Destruction of any paleontological resources present within the project site would constitute a significant impact. Implementation of **Mitigation Measure GEO-1** would reduce this potentially significant impact on paleontological resources to less than significant with mitigation by providing training for construction personnel related to the possibility of encountering fossils, requiring work to halt within 25 feet of any potential fossil find, and requiring a qualified paleontologist to evaluate and excavate any such find. Therefore, the impact would be *less than significant with mitigation*.

### **Mitigation Measure GEO-1: Halt Construction Activity in Case of Finding Paleontological Resources, Evaluate Find, and Excavate Find (All Phases)**

In the event that previously unidentified paleontological resources are uncovered during site preparation, excavation, or other construction activity, the project applicant or successor shall cease all such activity within 25 feet of the discovery or ensure that all such activity within 25 feet of the discovery ceases until the resources have been evaluated by a qualified professional and specific measures can be implemented to protect these resources in accordance with Sections 21083.2 and 21084.1 of the California Public Resources Code. If the find is potentially significant, the project applicant or successor shall ensure a qualified paleontologist shall excavate the find in compliance with state law, keeping project delays to a minimum. If the qualified paleontologist determines the find is not significant then proper recordation and identification shall ensure and the project will continue without delay.

## Phase 1

Phase 1 development includes excavation for the new subterranean parking garage, which is proposed to a depth of 31 feet bgs. An estimated 740,000 square feet of ground would be disturbed during construction of Phase 1. In addition, Phase 1 would require a maximum depth of excavation reaching approximately 31 feet bgs. For areas outside the deep basement excavation, maximum depth of excavation would extend to approximately 9 feet bgs to accommodate utility trenching. This excavation has potential to disturb paleontological resources, including direct or indirect destruction. An estimated 293,000 cubic yards of soil would be excavated.

Destruction of any paleontological resources present at the Phase 1 site would constitute a significant impact. Implementation of **Mitigation Measure GEO-1** would reduce this potentially significant impact on paleontological resources to ***less than significant with mitigation*** by providing training for construction personnel related to the possibility of encountering fossils, requiring work to halt within 25 feet of any potential fossil find in case of finding paleontological resources, and requiring a qualified paleontologist to evaluate and excavate any such find.

#### 4.6.4.4 Cumulative Impacts

**Impact C-GEO-1: The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a significant cumulative impact on geology and soils. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

In general, a project's potential impacts related to geology and soils are individual and localized, depending on the project site and underlying soils. Each structure will have different levels of excavation, cut-and-fill work, and grading, which would affect local geologic conditions in different ways. Therefore, the geographic context for cumulative impacts to geology and soils is site-specific.

Past, present, and reasonably foreseeable future projects within a 0.5-mile radius of the project site are identified in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR and shown in **Figure 4.1-1**. The cumulative projects could require various levels of excavation or cut-and-fill, which would affect local geologic conditions. However, the cumulative projects would be required to go through environmental and regulatory review and comply with local and state building codes. In addition, each project would also be required to have a site-specific geotechnical investigation performed, which would provide design recommendations to reduce each project's impacts related to geologic and seismic safety. Similar to the proposed project, mandatory seismic safety standards, design review and conditions of approval would apply to the reasonably foreseeable future projects. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulative geology and soils impact. The cumulative impact would be ***less than significant***. No mitigation is required.

**Impact C-GEO-2: The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a cumulatively considerable contribution to significant cumulative impacts on paleontological resources. (Project: *Less than Cumulatively Considerable*; Phase 1: *Less than Cumulatively Considerable*)**

The geographic context for paleontological resources is the full extent of geologic units with high or unknown paleontological sensitivity that underlie the construction area. For purposes of evaluating potential cumulative impacts on paleontological resources, the cumulative projects are those located within approximately 0.5 mile of the project site, as described in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR and shown in **Figure 4.1-1**. The cumulative projects in the geographic context for paleontological resources would be constructed on infill sites in highly disturbed areas. It is likely that the cumulative projects would be constructed on sites where the ground surface has been disturbed and/or covered with fill and gravel. However, deep excavation could reach areas of undisturbed native sediments that could contain significant paleontological resources. Reasonably foreseeable projects planned or proposed for construction on these sensitive geologic units could encounter paleontological resources. Therefore, the cumulative impact could be significant because the reasonably foreseeable projects would likely involve ground-disturbing activities that could uncover resources related to resources that could be uncovered by the project.

However, implementation of **Mitigation Measure GEO-1** would ensure that the proposed project's contribution to cumulative impacts on paleontological resources would be ***less than cumulatively considerable*** because it would ensure that information that may be recoverable from any identified paleontological resource would be recorded and properly curated as required under state law.

## 4.7 Greenhouse Gas Emissions

### 4.7.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on greenhouse gas (GHG) emissions. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes GHG modeling files and calculations (**Appendix 4.2-1**).

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. No questions or concerns related to GHG emissions were raised in the responses to the NOP.

### 4.7.2 Environmental Setting

#### 4.7.2.1 Project Site and Phase 1 Site

As described in more detail in Chapter 3, *Project Description*, the project site comprises the proposed Specific Plan area and the off-site improvement areas. The Phase 1 site is in the southern portion of the Specific Plan area. The Specific Plan area currently includes a variety of office, industrial, warehouse, and storage facilities as well as surface parking spaces. The off-site improvement areas consist of rights-of-way and easements in the cities of South San Francisco and San Bruno that are developed with circulation and utility infrastructure. Because the project site boundary is inclusive of the boundaries of the Phase 1 site and the offsite improvement areas, for purposes of the GHG emissions analysis, the environmental setting for the project site is considered to be the same as the environmental setting for the Phase 1 site and the offsite improvement areas.

The following sections discuss the environmental setting related to GHG emissions and climate change.

#### 4.7.2.2 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, thereby enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution.<sup>1</sup> 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 temperatures and acidity, reduced sea ice, variable precipitation, and increased frequencies and intensities for extreme weather events.<sup>2</sup> 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 and is 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.<sup>3</sup> Large increases in global temperatures could have substantial adverse effects on the natural and human environments in California and worldwide.

#### 4.7.2.3 Greenhouse Gases

The principal anthropogenic (human-made) GHGs contributing to global warming are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated compounds, including sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons. 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<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. The principal characteristics of these pollutants are discussed below.

CO<sub>2</sub> enters the atmosphere through fossil fuel (i.e., oil, natural gas, coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., from cement manufacturing). CO<sub>2</sub> is also removed from the atmosphere (or *sequestered*) when it is absorbed by plants as part of the biological carbon cycle.

CH<sub>4</sub> is emitted during the production and transport of coal, natural gas, and oil. These emissions also result from livestock operations and other agricultural practices as well as the decay of organic waste in municipal solid waste landfills.

N<sub>2</sub>O is emitted during agricultural and industrial activities and from the combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method for comparing GHG emissions is the

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<sup>1</sup> Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Available: [https://www.ipcc.ch/site/assets/uploads/2018/05/ar4\\_wg1\\_full\\_report-1.pdf](https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf). Accessed: November 9, 2020.

<sup>2</sup> Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C. Contribution of Working Group I, II, and III*. Available: <https://www.ipcc.ch/sr15/>. Accessed: November 9, 2020.

<sup>3</sup> Ibid.

global warming potential (GWP) methodology, as 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<sub>2</sub>e), which compares the gas in question to that of the same mass of CO<sub>2</sub> (CO<sub>2</sub> has a global warming potential of 1 by definition).

**Table 4.7-1, p. 4.7-3**, lists the global warming potential of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O and their lifetimes in the atmosphere.

**Table 4.7-1. Lifetimes and Global Warming Potentials of Key Greenhouse Gases**

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
CO <sub>2</sub>	1	50–200
CH <sub>4</sub>	25	9–15
N <sub>2</sub> O	298	121

Source: California Air Resources Board. 2020a. *Global Warming Potentials*. Last reviewed: June 22. Available: <https://www.arb.ca.gov/cc/inventory/background/gwp.htm#transition>. Accessed: August 17, 2020.

CH<sub>4</sub> = methane  
CO<sub>2</sub> = carbon dioxide  
N<sub>2</sub>O = nitrous oxide

All GWPs used for the California Air Resources Board's (CARB's) GHG inventory and for assessing attainment of the state's 2020 and 2030 reduction targets are considered over a 100-year timeframe (as shown in **Table 4.7-1, p. 4.7-3**). However, CARB recognizes the importance of short-lived climate pollutants as well as the importance of 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<sub>2</sub>.<sup>4</sup> Because of their short-term lifespan and warming impact, short-lived climate pollutants are measured in terms of CO<sub>2</sub>e, using a 20-year time period. The use of GWPs with a time horizon of 20 years captures the importance of short-lived climate pollutants and gives a better perspective on the speed at which emission controls will affect the atmosphere relative to CO<sub>2</sub> emission controls. The Short-Lived Climate Pollutant Reduction Strategy, discussed in Section 4.7.3, *Regulatory Framework*, addresses issues associated with CH<sub>4</sub>, hydrofluorocarbon gases, and anthropogenic black carbon. CH<sub>4</sub> 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.<sup>5</sup>

#### 4.7.2.4 Greenhouse Gas Reporting

A GHG inventory is a quantification of all GHG emissions and sinks<sup>6</sup> within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Several agencies have developed

<sup>4</sup> California Air Resources Board. 2017b. *Short-Lived Climate Pollutant Reduction Strategy*. Available: [https://www2.arb.ca.gov/sites/default/files/2018-12/final\\_slcp\\_report%20Final%202017.pdf](https://www2.arb.ca.gov/sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf). Accessed: November 9, 2020.

<sup>5</sup> Ibid.

<sup>6</sup> A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

tools to quantify emissions from certain sources. **Table 4.7-2, p. 4.7-3**, outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related emissions.

**Table 4.7-2. Global, National, State, Regional, and Local Greenhouse Gas Emissions Inventories**

<b>Emissions Inventory</b>	<b>CO<sub>2</sub>e (metric tons)</b>
2010 IPCC Global GHG Emissions Inventory	52,000,000,000
2018 EPA National GHG Emissions Inventory	6,676,600,000
2018 CARB State GHG Emissions Inventory	425,300,000
2015 BAAQMD GHG Emissions Inventory	85,000,000
2005 South San Francisco Inventory	548,600

**Sources:**

Intergovernmental Panel on Climate Change. 2014. *Climate Change Synthesis Report*. Available: [https://www.ipcc.ch/site/assets/uploads/2018/02/SYR\\_AR5\\_FINAL\\_full.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf). Accessed: November 9, 2020;

U.S. Environmental Protection Agency. 2019. *Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990–2017*. Available: <https://www.epa.gov/sites/production/files/2019-02/documents/us-ghg-inventory-2019-main-text.pdf>. Accessed: September 14, 2021;

California Air Resources Board. 2020b. *California Greenhouse Gas Emissions for 2000 to 2018*. Available: [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2018/ghg\\_inventory\\_trends\\_00-18.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf). Accessed: November 9, 2020;

Bay Area Air Quality Management District. 2017b. *Final 2017 Clean Air Plan*. Adopted: April 19. Available: [http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-proposed-final-cap-vol-1-pdf.pdf](http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf). Accessed: November 9, 2020;

City of South San Francisco. 2014. *City of South San Francisco Climate Action Plan*. Adopted: February 13. Available: <https://www.ssf.net/home/showdocument?id=1318>. Accessed: November 9, 2020.

**Notes:**

CO<sub>2</sub>e = carbon dioxide equivalent; IPCC = Intergovernmental Panel on Climate Change; EPA = U.S. Environmental Protection Agency; BAAQMD = Bay Area Air Quality Management District; CARB = California Air Resources Board

## 4.7.2.5 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, 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;<sup>7</sup>

<sup>7</sup> California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment, Statewide Summary Report*. Available: <http://www.climateassessment.ca.gov/state/docs/20190116-StatewideSummary.pdf>. Accessed: November 9, 2020.

- Rising average global sea levels, primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets;<sup>8</sup>
- Changing weather patterns, including changes in precipitation, ocean salinity, and wind patterns, along with the more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and intense tropical cyclones;<sup>9</sup>
- Declining snowpack levels in the Sierra Nevada; snowpacks account for approximately half of the surface water storage in California but are projected to decline by 70 to as much as 90 percent over the next 100 years;<sup>10</sup>
- Increasing the number of days that are conducive to ozone formation (e.g., clear days with intense sun light) by 25 to 85 percent, depending on the future temperature scenario, by the end of the 21<sup>st</sup> century in high ozone areas, including Southern California;<sup>11</sup>
- Increasing the potential for erosion along California's coastlines as well as seawater intrusion at the Sacramento Delta and associated levee systems due to the rise in sea level; and<sup>12</sup>
- Exacerbating the severity of drought conditions in California such that durations and intensities are amplified, ultimately increasing the risk of wildfires and consequential damage.<sup>13</sup>

Under changing climate conditions, agriculture is projected to experience lower crop yields because of extreme heat waves, heat stress, increased water needs associated with crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats.<sup>14</sup>

The impacts of climate change, such as increased heat-related events, droughts, and wildfires, pose direct and indirect risks to public health because people will experience earlier deaths and worsening illnesses. Indirect impacts on public health include an increase in vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.<sup>15</sup>

### 4.7.3 Regulatory Framework

This section provides a summary of the GHG emissions plans and policies of the City of South San Francisco (City) as well as regional, state, and federal agencies that have policy and regulatory control over the project site.

#### 4.7.3.1 International

In 2015, the twenty-first session of the Conference of Parties took place in Paris, France. The session included representatives from 196 parties to the United Nations Framework Convention on Climate Change. The Paris Climate Agreement included limiting global temperature increases to well below

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<sup>8</sup> Ibid.

<sup>9</sup> Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C. Contribution of Working Group I, II, and III*. Available: <https://www.ipcc.ch/sr15/>. Accessed: November 9, 2020.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

2°C, establishing binding commitments so all parties make Nationally Determined Contributions (NDCs), pursuing domestic policies to achieve the NDCs, and having all countries report regularly regarding their emissions and progress made in implementing and achieving their NDCs. In April 2016, 174 states and the European Union signed the agreement, including the United States. However, on November 4, 2019, former President Donald Trump formally notified the United Nations that the United States would withdraw from the Paris Climate Agreement. The United States then entered a 1-year process for exiting the deal, which officially occurred on November 4, 2020; however, President Joseph Biden, who assumed office on January 20, 2021, submitted the United States instrument of acceptance to re-join the agreement on his first day in office.<sup>16</sup> President Biden's Executive Order No. 14008, released on January 27, 2021, begins the process of developing the United States' NDCs and ratifying the Kigali Amendment, among other things. The Kigali Amendment is a 2016 global pact under the Montreal Protocol to phase down climate-warming hydrofluorocarbons (HFCs) over the coming decades. It will ultimately fall to the United States Senate to determine whether to move forward with Kigali ratification.

The Under2 Coalition is an international coalition of jurisdictions that signed the Global Climate Leadership Memorandum of Understanding (Under2 MOU), following former President Trump's decision to withdraw from the Paris agreement. The Under2 MOU aims to limit global warming to 2°C, limit GHGs to 80 to 95 percent below 1990 levels, and/or achieve an annual per capita emissions goal of less than 2 metric tons by 2050. The Under2 MOU has been signed or endorsed by more than 220 jurisdictions, representing 32 countries and six continents. Included among the jurisdictions is California.

#### 4.7.3.2 Federal

There is currently no overarching federal law specifically related to climate change or the reduction of GHG emissions. During the Obama administration, EPA worked to develop regulations under the Clean Air Act. Settlement agreements among EPA, several states, and nongovernmental organizations have been used to address GHG emissions from electric generating plants and refineries. In addition, EPA issued an Endangerment Finding and a Cause or Contribute Finding. EPA has also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO<sub>2</sub> emissions from new and existing coal-fired power plants. However, on February 9, 2016, the Supreme Court issued a stay regarding these regulations pending litigation. In addition, former EPA Administrator Scott Pruitt signed a measure to repeal the Clean Power Plan. The fate of the proposed regulations is uncertain, given the pending deliberations in federal courts.

#### Corporate Average Fuel Economy Standards

As discussed in Section 4.2, *Air Quality*, of this draft environmental impact report (EIR), the National Highway Traffic Safety Administration (NHTSA) sets Corporate Average Fuel Economy (CAFE) standards to improve average fuel economy and reduce GHG emissions generated by cars and light-duty trucks. The standards were updated in October 2012 to apply to new passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2017 through 2025. The standards are equivalent to 54.5 miles per gallon.

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<sup>16</sup> U.S. White House. 2021. *Paris Climate Agreement*. Statements and Releases. January. Available: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/>. Accessed: February 3, 2021.

On August 2, 2018, NHTSA and EPA proposed to amend the fuel efficiency standards for passenger cars and light-duty trucks and establish new standards, covering model years 2021 through 2026, by maintaining the current model year 2020 standards through 2026 (i.e., Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). The Clean Air Act allows California to seek a waiver of the preemption which prohibits states from enacting emission standards for new motor vehicles. EPA had granted California waivers for decades based on its long-standing determination that California's standards are at least as protective as federal standards, they are needed to meet compelling and extraordinary conditions, and are not inconsistent with Clean Air Act provisions related to technical feasibility and lead time to manufacturers. However, EPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). Part One of the SAFE Vehicles Rule went into effect on November 26, 2019, and Part Two went into effect on March 30, 2020. The SAFE Vehicles Rule will decrease the stringency of the previously adopted CAFE standards by 1.5 percent each year through model year 2026 compared with the standards issued in 2012, which would have required about 5 percent annual increases. 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.

On February 11, 2020, *California et al. v. United States Department of Transportation et al.* was stayed pending resolution of the related litigation of *Union of Concerned Scientists v. National Highway Traffic Safety Administration* (19-1230, U.S. Court of Appeals for the District of Columbia Circuit). The Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to dismiss or transfer to the D.C. Circuit a case filed in federal court in D.C. challenging NHTSA's final rule withdrawing California's waiver for its GHG and zero-emission vehicle program and preempting state programs that regulate vehicle greenhouse gas emissions or create ZEV mandates. On February 8, 2021, the D. C. Circuit Court of Appeals issued an order holding the cases in abeyance pending regulatory review.

On January 20, 2021, President Biden released Executive Order No. 13990, which, among other things, calls for agency review for Part One of the SAFE Vehicles Rule by April 2021 and Part Two by July 2021. The order states that agencies shall consider whether to propose, suspend, revise or rescind these rules. On April 22, 2021, NHTSA proposed a rule to repeal Part One of the SAFE rule and restore California's waiver to set its own vehicle standards. The fates of the proposed rules are uncertain, given the pending court deliberations and executive order.

### 4.7.3.3 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 GHG emissions in the state to be reduced to 1990 levels by 2020. Senate Bill (SB) 32 (2016) requires emissions in the state to be reduced to 40 percent below the 1990 level by 2030. The state's plans to reach these targets are presented in periodic scoping plans. CARB most recently adopted

the 2017 Climate Change Scoping Plan in November 2017 to meet the GHG reduction requirement set forth in SB 32.<sup>17</sup> It proposes continuing the major programs of the previous Scoping Plan, including cap-and-trade regulations; low-carbon fuel standards; programs pertaining to more efficient cars, trucks, and freight movement; the Renewables Portfolio Standard (RPS); and programs pertaining to reducing CH<sub>4</sub> 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 (achieved), and 3) 80 percent below the 1990 levels by 2050. In 2018, EO B-55-18 established a new state goal designed to achieve carbon neutrality as soon as possible (no later than 2045) 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 each year from eligible renewable sources. The state's existing RPS requires all retail sellers to procure a certain amount of electricity from eligible renewable energy resources so that the total number of kilowatt-hours sold to their retail customers equals 25 percent of sales by December 31, 2016 (achieved); 33 percent by December 31, 2020; 40 percent by December 31, 2024; 45 percent by December 31, 2027; and 50 percent by December 31, 2030. SB 100 revises and extends these renewable resource targets to 50 percent by December 31, 2026; 60 percent by December 31, 2030; and 100 percent by December 31, 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). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. The standards concern 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 GHG emissions. These stricter emissions standards were designed to apply to automobiles and light-duty trucks beginning with the 2009 model year. Additional strengthening of the Pavley standards (referred to previously as *Pavley II* and now referred to as the *Advanced Clean Cars* measure) led to

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<sup>17</sup> California Air Resources Board. 2017a. *The 2017 Climate Change Scoping Plan Update: The Strategy for Achieving California's 2030 GHG Target*. January. Available: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed: November 9, 2020.

measures being 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.

### **Low-Carbon Fuel Standard**

With EO S-01-07, Governor Schwarzenegger set forth the low-carbon fuel standard for California. Under this 2007 executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.<sup>18</sup> On September 27, 2018, CARB approved amendments requiring a 20 percent reduction in carbon intensity by 2030. CARB is expected to determine whether the 2020 standard was achieved sometime in late 2021.

### **Regional Land Use and Transportation Planning to Reduce Vehicle Miles Traveled**

SB 375 (2009) requires the state's 18 metropolitan planning organizations to develop Sustainable Communities Strategies (SCSs) as part of their Regional Transportation Plans (RTPs) through integrated land use and transportation planning and demonstrate their ability to attain the GHG emissions reduction targets CARB established for the region by 2020 and 2035. This would be accomplished through either a 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 California Environmental Quality Act (CEQA) review requirements. The SCS for the San Francisco Bay Area is addressed in Section 4.7.3.4, p. 4.7-11.

### **CEQA Requirements to Assess Greenhouse Gas Emissions**

Per CEQA Guidelines section 15064.4, lead agencies are required to describe, calculate, or estimate the amount of GHG emissions that would result from a project. Moreover, the CEQA Guidelines emphasize the necessity to determine potential climate change effects of a project and propose mitigation as necessary. The CEQA Guidelines confirm the lead agency's discretion to determine the appropriate significance threshold, but require the preparation of an environmental impact report (EIR) if "there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with adopted regulations or requirements."

CEQA Guidelines section 15126.4 includes considerations for lead agencies related to feasible mitigation measures to reduce GHG emissions, which may include, among others, measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision; implementation of project features, project design, or other measures that are incorporated into the project to substantially reduce energy consumption or GHG emissions; offsite measures, including offsets that are not otherwise required.

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<sup>18</sup> From 2011 to 2018, the GHG intensity of transportation fuels was reduced by approximately 5 percent. Source: GHG Institute. 2020. *The Low Carbon Fuel Standard Has Succeeded, But How Does It Work?* Available: <https://ghginstitute.org/2020/01/22/the-low-carbon-fuel-standard-has-succeeded-but-how-does-it-work/#:~:text=The%20State%20of%20California%20has,the%20baseline%20year%20of%202010>. Accessed May 27, 2021.

## **CEQA Requirements to Assess Vehicle Miles Traveled**

SB 743, adopted in 2013, required revisions to the CEQA Guidelines to establish new impact analysis criteria for the assessment of a project's transportation impacts (Public Resources Code section 21099). The intent behind SB 743 and revising the CEQA Guidelines was to integrate and balance the needs of congestion management, infill development, active transportation, and GHG emissions reduction strategies. The California Office of Planning and Research (OPR) recommended 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. Per CEQA Guidelines section 15064.3, the new VMT criteria and methodology are required as of July 1, 2020.

## **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 percent reduction in CH<sub>4</sub> (below 2013 levels by 2030),
- 40 percent reduction in hydrofluorocarbon gases (below 2013 levels by 2030), and
- 50 percent reduction in anthropogenic black carbon (below 2013 levels by 2030).

The bill also establishes the following targets for reducing organic waste in landfills and CH<sub>4</sub> emissions from dairy and livestock operations:

- 50 percent reduction in organic waste disposal from the 2014 level by 2020,
- 75 percent reduction in organic waste disposal from the 2014 level by 2025, and
- 40 percent reduction in CH<sub>4</sub> emissions from livestock manure management operations and dairy manure management operations from the dairy sector's and livestock sector's 2013 levels by 2030.

CARB and the California Department of Resources Recycling and Recovery (CalRecycle) are currently developing regulations to achieve the organic waste reduction goals found under SB 1383. In January 2019 and June 2019, CalRecycle proposed new and amended regulations in Titles 14 and 27 of the California Code of Regulations. Among other things, the regulations set forth minimum standards for organic waste collection, hauling, and composting. The final regulations will take effect on or after January 1, 2022.

## **Water Conservation Act of 2009**

SB X7-7, enacted in November 2009, requires all water suppliers to 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 was required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. The bill required each water supplier to develop urban water use targets.

## Solid Waste Diversion Targets

To minimize the amount of solid waste that must be disposed of in landfills, the state legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. This 50 percent diversion rate also applies to state agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. As of July 1, 2012, the resulting Mandatory Commercial Recycling Regulation required certain businesses that generate 4 cubic yards or more of commercial solid waste per week to arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them 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.

### 4.7.3.4 Regional

#### Metropolitan Transportation Commission and Sustainable Communities Strategy

The Metropolitan Transportation Commission (MTC) is the metropolitan planning organization for the nine counties that make up the San Francisco Bay Area and the San Francisco Bay Area Air Basin (SFBAAB), which includes the city of South San Francisco. As required by SB 375, in 2010 CARB set the first per capita GHG emissions targets for the SFBAAB of a 7 percent reduction by 2020 and a 15 percent reduction by 2035 compared with 2005 levels. In 2013, MTC adopted a Sustainable Communities Strategy (SCS) as part of its Regional Transportation Plan (RTP) for the SFBAAB. This was known as Plan Bay Area. The plan goes beyond the regional per capita targets, achieving 10 and 16 percent reductions in per capita GHG emissions by 2020 and 2035, respectively.<sup>19</sup> On July 26, 2017, the strategic update to this plan, known as Plan Bay Area 2040, was adopted by the Association of Bay Area Governments and the MTC. As a limited and focused update, Plan Bay Area 2040 builds upon the growth pattern and strategies developed in the original Plan Bay Area but with updated planning assumptions that incorporate the key economic, demographic, and financial trends since 2013.<sup>20</sup> Plan Bay Area 2040 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.

The SCS policies include a mix of strategies that encourage compact growth patterns, mixed-use designs, alternative transportation, transit, mobility and access, network expansion, and transportation investment.

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<sup>19</sup> Metropolitan Transportation Commission and Association of Bay Area Governments. 2013. *Plan Bay Area*. Adopted: July 18. Available: <http://files.mtc.ca.gov/library/pub/28536.pdf>. Accessed: November 11, 2020.

<sup>20</sup> Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040*. Adopted: July 26. Available: [http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final\\_Plan\\_Bay\\_Area\\_2040.pdf](http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf). Accessed: November 11, 2020.

As required by SB 375, CARB updated the per capita GHG emissions reduction targets in 2018. The new targets, which will be addressed in MTC's forthcoming RTPs, are a 10 percent per capita GHG reduction by 2020 and 19 percent per capita reduction by 2035 compared with 2005 levels.<sup>21</sup>

### Bay Area Air Quality Management District

As discussed in Section 4.2, *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 South San Francisco. BAAQMD has adopted advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's GHG emissions. The thresholds are outlined in the agency's CEQA Guidelines.<sup>22</sup> The BAAQMD CEQA Guidelines also outline methods for quantifying GHG emissions as well as developing potential mitigation measures. As discussed in Section 4.2, *Air Quality*, BAAQMD has also adopted air quality plans to protect the climate, including the 2017 Clean Air Plan: Spare the Air, Cool the Climate.<sup>23</sup> The 2017 Clean Air Plan outlines feasible measures for reducing GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

#### 4.7.3.5 Local

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno (San Bruno) but would not develop any new structures or new land uses in San Bruno. The improvements would occur on areas that are already developed with existing circulation improvements. The specific off-site improvements located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue.

Climate change is a global problem, and GHGs are global pollutants. Given the scale of the impact of GHGs, the limited scale of construction that would occur in San Bruno's jurisdiction, and the fact at the proposed project would not introduce any new permanent land uses in San Bruno, this section evaluates the proposed project's consistency with City of South San Francisco plans and policies related to GHGs, and does not include a local-level evaluation of consistency with San Bruno plans and policies related to GHGs.

### South San Francisco General Plan

The 1999 City of South San Francisco General Plan, as amended, provides a vision for long-range physical and economic development of the city, provides strategies and specific implementing

<sup>21</sup> California Air Resources Board 2020. *SB 375 Regional Plan Climate Targets*. Available: <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>. Accessed: August 17, 2020.

<sup>22</sup> Bay Area Air Quality Management District. 2017a. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: November 11, 2020.

<sup>23</sup> Bay Area Air Quality Management District. 2017b. *Final 2017 Clean Air Plan*. Adopted April 19. Available: <https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a-proposed-final-cap-vol-1-pdf.pdf?la=en>. Accessed: January 6, 2020.

actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The City General Plan contains an Open Space and Conservation Element, which outlines policies related to habitat and biological resources, water quality, air quality, GHG emissions, and historic and cultural resources. The City General Plan includes the following policies, which are applicable to GHG emissions:

- Guiding Policy 7.3-G-4: Encourage land use and transportation strategies that promote the use of alternatives to the automobile for transportation, including bicycling, bus transit, and carpooling.
- Guiding Policy 7.3-G-5: Promote clean and alternative fuel combustion in mobile equipment and vehicles.
- Implementing Policy 7.3-I-2: Use the City's development review process and the CEQA regulations to evaluate and mitigate the local and cumulative effects of new development on air quality and GHG emissions.
- Implementing Policy 7.3-I-6: Periodically update the inventory of community-wide GHG emissions and evaluate appropriate GHG emissions reduction targets, consistent with current state objectives, statewide guidance, and regulations.
- Implementing Policy 7.3-I-7: Adopt and implement the City's Climate Action Plan, which will identify a GHG emissions reduction target and measures and actions to achieve the reduction target.
- Implementing Policy 7.3-I-8: Evaluate and regularly report to City Council, or its designee, on the implementation status of the Climate Action Plan and update the Climate Action Plan as necessary should the City find that adopted strategies are not achieving anticipated reductions or otherwise incorporate new opportunities.
- Implementing Policy 7.3-I-9: Promote land uses that facilitate alternative transit use, including high-density housing, mixed uses, and affordable housing served by alternative transit infrastructure.
- Implementing Policy 7.3-I-10: Facilitate energy efficiency in building regulations and streamline review processes, thereby providing the flexibility needed to achieve specified energy performance levels while requiring energy efficiency measures as appropriate.
- Implementing Policy 7.3-I-11: Coordinate with the business community to encourage energy efficiency in the city's largest energy users while supporting economic growth objectives.
- Implementing Policy 7.3-I-12: Adopt guidelines, standards, and flexible regulations that promote on-site renewable energy systems while strengthening South San Francisco's economic competitiveness.
- Implementing Policy 7.3-I-13: Encourage efficient, clean energy and fuel use through collaborative programs, award programs, and incentives while removing barriers to the expansion of alternative-fuel facilities and infrastructure.
- Implementing Policy 7.3-I-14: Ensure that design guidelines and standards support operation of alternative-fuel facilities, vehicles, and equipment.

## South San Francisco Climate Action Plan

The City's Climate Action Plan (CAP), adopted in 2014, includes goals, policies, and strategies to reduce the city's GHG emissions, in compliance with AB 32 and SB 375. GHG reduction strategies identified in the CAP include a development checklist to identify applicable measures for discretionary projects. The City's CAP was adopted to reduce GHGs community-wide and achieve a reduction target of 15 percent below 2005 emission levels by 2020.

The City has identified GHG reduction measures and strategies to reduce GHG emissions. These strategies include implementation of Transportation Demand Management (TDM) Plans, expanding active transportation alternatives, maximizing energy efficiency in the build environment, developing a waste reduction strategy to increase recycling and the reuse of materials, and reducing water demand.<sup>24</sup> The City's CAP is currently being updated as part of the update to the City General Plan. The 2014 CAP remains active until completion and adoption of the new CAP.

Because the City's CAP only demonstrates consistency with the AB 32 near-term reduction target for 2020, it is not a "qualified" CAP available for CEQA streamlining for projects after 2020 (see further discussion in Section 4.7.4.1, *Significance Criteria*). However, until an updated CAP is adopted, the current CAP's measures and development requirements still apply to projects constructed and operated after 2020. Therefore, this analysis evaluates the proposed project's consistency with applicable measures and development requirements in the City's CAP.

## Transportation Demand Management Ordinance

The City's TDM Ordinance requires projects to incorporate measures to reduce the number of trips generated and achieve goals related to alternative mode use. According to the ordinance, a project that is categorized as a business and professional office and requests a floor area ratio (FAR) of 2.3 is required to achieve a minimum alternative mode use of 45 percent (i.e., percentage of total trips).<sup>25</sup> Although the proposed project would implement zoning map and zoning text amendments to reflect adoption of the Specific Plan and implement the Southline Campus (S-C) District zoning, the City considers the 45 percent mode share reduction requirement to be applicable to the project based on similarities to the project site's currently underlying zoning designation and the fact that 45 percent is the maximum mode share reduction required for any use type under the TDM Ordinance. The ordinance requires an annual employee mode-share survey at the project site to ensure that desired transportation mode shares are achieved. Where the mode share target is not achieved, City officials may require program modifications to increase alternative mode share or impose administrative penalties.

## City of South San Francisco Construction and Demolition Waste Management Plan

The City is mandated by the State of California to divert 65 percent of all solid construction waste from landfills either by reusing or recycling. To help meet this goal, a city ordinance requires completion of a Waste Management Plan for covered building projects identifying how at least 65

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<sup>24</sup> Ibid.

<sup>25</sup> South San Francisco, California, Municipal Code § 20.400. The maximum FAR of 2.5 in the BPO district may be achieved through both the TDM measures described above (up to 2.3 FAR), and inclusion of (a) high quality, innovative design and product type, and maximum provisions for pedestrian and bicycle use, and (b) provision of green building measures over and above the applicable green building compliance thresholds required pursuant to Title 15 of the South San Francisco Municipal Code (up to 0.2 additional FAR). South San Francisco, California, Municipal Code § 20.090.003(C).

percent of non-inert project waste materials and 100 percent of inert materials will be diverted from the landfill through recycling and salvage.<sup>26</sup>

## 4.7.4 Impacts and Mitigation Measures

This section describes the impact analysis related to GHG emissions for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) potentially significant impacts accompany each impact discussion, when necessary.

### 4.7.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant GHG emissions impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHG.

CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of environmental impacts pertaining to GHG emissions. Section 15064.4(a) states that a lead agency should make a good-faith effort that is based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions that would result from implementation of a project. Section 15064.4(b) also states that, when assessing the significance of impacts from GHG emissions, a lead agency should consider 1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, 2) whether the project's GHG emissions would exceed a threshold of significance that the lead agency has determined to be applicable to the project, and 3) the extent to which the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The California Supreme Court's decision in *Center for Biological Diversity et al. v. California Department of Fish and Wildlife* (62 Cal. 4th 204; "Newhall Ranch") 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 various threshold approaches and guidelines for analyzing GHG emissions in CEQA documents. Common threshold approaches include 1) compliance with a qualified GHG reduction strategy, 2) numeric "bright-line" thresholds, 3) efficiency-based thresholds, 4) performance-based reductions,<sup>27</sup> and 5) compliance with regulatory programs.

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<sup>26</sup> City of South San Francisco. 2017. *Construction and Demolition Waste Management Plan – Information for the Applicants*. Available: <https://www.ssf.net/home/showdocument?id=2416>. Accessed: September 14, 2021.

<sup>27</sup> Performance-based thresholds are based on the percentage reduction from a projected future condition (e.g., reducing future business-as-usual emissions to meet the SB 32 target [40 percent below 1990 levels]) through a combination of state measures; project design features, such as features related to renewable energy; and mitigation.

Given 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 with respect to the most applicable regulatory programs, policies, best management practices (BMPs), and thresholds recommended by BAAQMD, CARB, and OPR, as described below.

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 the GHG emissions be made with respect to whether a project is consistent with emissions reduction goals. BAAQMD further recommends incorporation of BMPs to reduce GHG emissions during construction, as feasible and applicable. This approach is used to evaluate construction-generated emissions.

An adopted qualified CAP may have a near-term focus, in terms of GHG reduction targets and associated reduction measures that are consistent with the 2020 target established in AB 32, but may not be consistent with a longer-term 2030 target expressed in SB 32 because the CAP was adopted before SB 32 was passed in Fall 2016. In such cases, a local CAP may no longer be considered "qualified" to meet the criteria in CEQA Guidelines Section 15183.5. This is the case for the City's CAP, which was adopted in 2014. The City has not adopted a qualified GHG reduction plan beyond 2020 (i.e., when the proposed project would be constructed and operational) for the purposes of showing consistency with the 2030 SB 32 target and thus tiering per CEQA Guidelines Section 15183.5 is not an applicable option for assessing the proposed project's GHG impacts.<sup>28</sup> The CAP measures and development requirements still apply to projects constructed and operated after 2020. The proposed project is compared with the CAP to determine consistency as part of Impact GHG-2.

BAAQMD's CEQA Guidelines recommend efficiency-based thresholds for land use projects (1,100 metric tons of CO<sub>2</sub>e per year and 4.6 metric tons of CO<sub>2</sub>e per service population per year,<sup>29</sup> respectively)<sup>30</sup> to evaluate a project's total GHG emissions. However, these thresholds were developed by BAAQMD in accordance with the 2020 AB 32 GHG reduction targets. The proposed project would be constructed and would operate entirely in the post-2020 period; therefore, it is not appropriate to evaluate the project's emissions relative to the 2020 land use project thresholds.<sup>31</sup> All operational GHG impacts (excluding stationary sources, which are discussed separately below) are evaluated based on implementation of BMPs to reduce GHG emissions and compliance with regulatory programs, consistent with the California Supreme Court's determination that compliance with statewide emissions reduction targets may be an acceptable pathway for evaluating project-level GHG emissions under CEQA (*Newhall Ranch*, 62 Cal. 4th 204, 222-24).

The *Newhall Ranch* decision, which concerned a 2010 EIR prior to adoption of SB 32, specifically mentions consistency with SCSs (per SB 375) and AB 32 as a potential mechanism for evaluating significance. A lead agency could assess project-level consistency with AB 32 in whole or part by evaluating whether the project complies with applicable policies in the AB 32 Scoping Plan. The AB

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<sup>28</sup> However, the CAP measures and development requirements still apply to projects constructed and operated after 2020. Consistency with the CAP framework is considered in this analysis.

<sup>29</sup> Service population refers to the total number of residents and/or employees.

<sup>30</sup> Bay Area Air Quality Management District. 2017a. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: January 7, 2020.

<sup>31</sup> These thresholds do not account for GHG emissions reductions from new development post-2020 and are not tailored to the proposed project.

32 Scoping Plan does not consider the deeper reductions needed to meet the state's 2030 target under SB 32. Accordingly, relying exclusively on consistency with the AB 32 Scoping Plan and related programs to evaluate emissions generated by land use development projects constructed after 2020 would not fully consider a project's potential GHG impacts on the state's long-term reduction trajectory.

The state has a carbon neutrality goal, which was set by EO B-55-18. However, the state's 2045 goal has not been codified into law, and neither the state nor the City has adopted a plan or framework for achieving the 2045 goal. The state's 2030 target was codified into law through SB 32 and the 2017 Climate Change Scoping Plan<sup>32</sup> was adopted to meet that goal. Therefore, 2030 marks the next statewide statutory milestone target that would be applicable to the proposed project, with buildout years for Phase 1 and the Specific Plan in 2024 and 2030, respectively.

This analysis focuses on the 2030 target and the plans, policies, and regulations adopted pursuant to achieving 2030 reductions. Emissions generated in 2030 are used as an indicator of long-term progress toward emissions reductions and evaluated as they relate to the proposed project's impacts on the state's long-term GHG reduction targets. More specifically, BMPs and project design features stipulated by Title 24, the California Department of Water Resources Model Water Efficient Landscape Ordinance, the 2019 California Green Building Standards Code, and CARB's 2017 Climate Change Scoping Plan, for instance, could be used to show compliance with performance-based standards and fulfill the statewide goal of reducing GHG emissions. To the extent that the proposed project complies with or exceeds the regulations outlined in the 2017 Scoping Plan and adopted by CARB or other state agencies, the proposed project could appropriately rely on their use to demonstrate compliance with the performance-based standards adopted to fulfill the statewide goal of reducing GHG emissions. The proposed project's consistency with regulatory programs adopted by CARB and other state agencies is therefore used to evaluate the significance of the proposed project's GHG emissions. Although the regulatory framework to achieve long-term (post-2030) emissions reductions is in its infancy, many of the programs outlined in the 2017 Scoping Plan are likely to be carried forward or have already been adopted with post-2030 requirements (e.g., the RPS). Accordingly, evaluating consistency with BMPs, design features, programs, and relevant guidance published by OPR and CARB for the reduction of long-term emissions is also considered in the analysis of the proposed project's emissions.

- **Mobile Sources:** CARB's 2017 Scoping Plan recognizes that, although vehicle technologies and low-carbon fuels will continue to reduce transportation-sector emissions, VMT reductions are necessary to achieve California's long-term GHG emissions reduction target. Mobile emissions are evaluated against the screening threshold for transportation impacts under SB 743. There is a nexus between SB 743 and the state's goals to reduce GHG emissions; one of the criteria under SB 743 for determining the significance of transportation impacts from a project is whether the project reduces GHG emissions. As such, if the proposed project is consistent with SB 743 screening thresholds, it would be considered to have a less-than-significant GHG impact from mobile emissions. In addition, compliance with regulatory programs (e.g., AB 1493, the low-carbon fuel standard, SB 375) would also be required to reduce statewide mobile GHG emissions impacts to a less-than-significant level.

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<sup>32</sup> California Air Resources Board. 2019. *2017 Scoping Plan – Identified VMT Reductions and Relationship to State Climate Goals*. January. Available: [https://ww2.arb.ca.gov/sites/default/files/2019-01/2017\\_sp\\_vmt\\_reductions\\_jan19.pdf](https://ww2.arb.ca.gov/sites/default/files/2019-01/2017_sp_vmt_reductions_jan19.pdf). Accessed: November 9, 2020.

- Energy, Water, Waste, Area, and Land Use Sources.** CARB’s 2017 Scoping Plan, which relies heavily on state programs (e.g., Title 24, SB 100), outlines the strategies required to reduce statewide GHG emissions and achieve California’s SB 32 reduction target.<sup>33</sup> Projects that implement applicable strategies from the 2017 Scoping Plan would be consistent with the state’s GHG reduction framework as well as requirements for these sectors. Accordingly, a sector-by-sector review of the respective sustainability design features and objectives included in the proposed project is provided to evaluate consistency with BMPs, design features, plans, and policies. This assessment also considers recent CARB guidance<sup>34</sup> related to long-term reductions in statewide emissions. Accordingly, impacts from energy, water, waste, area, and land use sources would be considered less than significant if the proposed project is consistent with all applicable BMPs, design features, strategies, and supporting regulations and guidance.
- Stationary Sources.** BAAQMD has adopted a threshold of 10,000 metric tons of CO<sub>2</sub>e for stationary sources.<sup>35</sup> 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 associated with new permit applications for stationary sources in the air basin. It would do so by capturing only the large, significant projects because permit applications with emissions above the threshold of 10,000 metric tons of CO<sub>2</sub>e account for less than 10 percent of all applications. The emergency generator included as part of the proposed project would be a permitted source, and as such, BAAQMD’s threshold of 10,000 metric tons of CO<sub>2</sub>e is appropriate for analyzing the significance of emissions generated by the generator. Impacts from stationary sources would be considered less than significant if the emissions total less than 10,000 metric tons of CO<sub>2</sub>e.

#### 4.7.4.2 Approach to Analysis

GHG impacts from 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 4.2-1**.

#### Project

##### Buildout Scenario Studied (Office Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, with a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified that represent the reasonably foreseeable range of development expected to occur under the Specific Plan, the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses the buildout scenario that represents the “worst-case”

<sup>33</sup> California Air Resources Board. 2017a. *California’s 2017 Climate Change Scoping Plan*. November. Accessed: [https://ww3.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf). Accessed: November 11, 2020.

<sup>34</sup> California Air Resources Board. 2019. *2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*. January. Available: [https://ww2.arb.ca.gov/sites/default/files/2019-01/2017\\_sp\\_vmt\\_reductions\\_jan19.pdf](https://ww2.arb.ca.gov/sites/default/files/2019-01/2017_sp_vmt_reductions_jan19.pdf). Accessed: November 11, 2020.

<sup>35</sup> Ibid.

scenario for the resource area being analyzed. The “worst-case” scenario is the scenario with the greatest potential to result in significant impacts.

The Office Scenario would develop up to seven buildings with office uses up to seven stories tall and the four-story amenity building for a total of 2,800,000 square feet (FAR of approximately 2.4). The Life Sciences Scenario would develop up to nine buildings with R&D uses, including laboratory and office spaces, up to six stories tall and the four-story amenity building for a total of 2,025,050 square feet (FAR of approximately 1.75). 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. Therefore, either buildout scenario represents the worst-case scenario in terms of the GHG emissions impacts associated with construction.

On the other hand, the differences in the gross square footage and land uses would influence long-term operational emissions. The R&D buildings under the Life Sciences Scenario would have a higher building energy consumption rate (in terms of kilowatt-hour per square foot of space) and higher-horsepower emergency diesel generators, which would be more emissions intensive. The Life Sciences Scenario also includes the unique emission source of up to six process boilers that would be used to generate steam for a range of applications (e.g., intensive cleaning of manufacturing equipment). However, the Office Scenario would involve more building development than the Life Sciences Scenario (i.e., an additional 774,950 square feet). Although the Office Scenario would have a lower building energy consumption rate per square foot, lower-horsepower generators and no process boilers, the increased building square footage would result in higher total energy consumption compared to the Life Sciences Scenario, making the Office Scenario the worst-case scenario in terms of GHG emissions associated with operation. Furthermore, the Office Scenario would generate nearly twice as many vehicle trips by commuters compared with the Life Sciences Scenario (11,200 employees versus 5,786). Mobile-source emissions typically make up the largest portion of a project’s operational emissions profile. Therefore, for the analysis of GHG emissions associated with operation, the worst-case scenario is assumed to be the Office Scenario. That scenario is evaluated in this section.

### Construction Emissions

Land uses that could be developed under the Specific Plan and offsite improvements would generate construction related GHG emissions from the use of mobile and stationary construction equipment; the use of vehicles, including haul trucks, by workers; and the use of electricity. The specific size, location, construction techniques, and scheduling for each individual development project occurring on the project site from implementation of the proposed Specific Plan are not currently known. With an anticipated buildout year of 2030, development of the various land uses associated with the proposed Specific Plan would occur over an extended period of time. As such, without specific project-level details, with the exception of Phase 1, which is described below, it is not possible to develop a refined construction emissions inventory.<sup>36</sup> Consequently, the determination of construction-related GHG impacts for each individual development project, or a combination of these projects, is not reasonably foreseeable and would require speculation regarding potential future project-level environmental impacts. Therefore, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential

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<sup>36</sup> Project-level information includes details such as the size and scale of the project to be constructed, the construction schedule, the equipment fleet, estimates regarding the size of the construction crew, and demolition and grading specifics.

construction-related impacts resulting from implementation of the Specific Plan is conducted qualitatively and at a program level in this EIR. Emission-generating activities and the types of emissions are described, and additional details regarding timing and phasing are provided for context.

### Operational Mobile-Source Emissions

GHG emissions impacts from motor vehicles associated with the project were evaluated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2; vehicle emission factors from CARB's EMFAC2017 emissions model; and daily VMT estimates based on the countywide travel demand model developed by the City/County Association of Governments of San Mateo County (C/CAG).<sup>37</sup> Daily VMT under existing conditions (2018) in the traffic analysis zone (TAZ) that contains the project site was estimated to be 258,452 miles.<sup>38</sup> Daily VMT in the TAZ in 2040, following Specific Plan buildout, was estimated to be 566,750 miles.<sup>39</sup> VMT estimates were based on the City/County Association of Governments of San Mateo County travel demand model and then modified to account for 1) the VMT reduction associated with the east-west extension through the Specific Plan area via Southline Avenue (see Section 4.15, *Transportation and Circulation*) and 2) the VMT reduction associated with the City's TDM Ordinance, under which the project would be required to achieve an alternative mode share of 45 percent, resulting in a 23 percent reduction in project VMT.<sup>40</sup> Daily VMT was annualized using a factor of 347 days, consistent with CARB guidance.<sup>41</sup>

Mobile emissions from gasoline-powered light-duty vehicles (e.g., vehicles for employee commuting) were adjusted to account for the impact of implementation of Part Two of the SAFE Vehicles Rule. Consistent with the capabilities of CalEEMod, this analysis does not quantify the emissions benefit from vehicle fuel switching that could be induced by electric vehicle chargers in parking spaces. This emissions benefit is qualitatively described where applicable in the impact analysis. See **Appendix 4.2-1** for the EMFAC2017 emission factors and traffic data utilized in this analysis.

### Operational Area, Energy, Water, Waste, and Land Use Emissions

Area, energy, water, waste, and land use emissions were estimated using CalEEMod, version 2016.3.2. Landscaping equipment, including gasoline-powered equipment (e.g., trimmers, mowers), is the primary area source of GHG emissions. Calculations of area-source emissions rely on CalEEMod's default assumptions, which represent a conservative estimate of equipment usage, based on the square footage of the new building space. The combustion of natural gas and use of electricity for building and water heating and cooling is the primary source of operational, non-mobile GHG emissions. Water consumption results in indirect GHG emissions from the electricity used to convey and treat the water. Waste generation results in fugitive CH<sub>4</sub> and N<sub>2</sub>O emissions from

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<sup>37</sup> Fehr & Peers. 2021. *Southline Transportation Impact Analysis*. June.

<sup>38</sup> The existing conditions reflect transportation conditions prior to the COVID-19 pandemic. Due to the atypical travel patterns and transit service levels during the COVID-19 pandemic, new data was not collected for this analysis.

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> California Air Resources Board. 2018. *EMFAC2017 Volume III – Technical Documentation*. Available: <https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf>. Accessed: November 11, 2020.

the decomposition of organic matter. Changes to the natural land, specifically the net change in the number of trees and the amount of vegetation on the project site, results in changes to the sequestration capacity of the project site.

Emissions were quantified for existing conditions (2018) and buildout conditions for the worst-case scenario (i.e., the Office Scenario [2030]). The 2030 modeling reflects implementation of state measures to reduce GHG emissions (e.g., SB 100, Pavley). The assumed defaults were based on the anticipated land uses and square footage identified in the Office Scenario. The analysis quantifies the emissions benefit from the Specific Plan's requirement that the project utilize 100 percent carbon-free electricity for all operational electricity needs through participation in programs such as PG&E Solar Choice or Peninsula Clean Energy (see Chapter 3, *Project Description*, of this EIR). This would eliminate any electricity-based operational GHG emissions from the proposed project. The analysis also accounts for the emissions benefit from weather-based irrigation controls to reduce water consumption and therefore indirect GHG emissions. Quantifiable features required for compliance with CALGreen (i.e., low-flow fixtures) were also incorporated into the CalEEMod model. Consistent with the capabilities of CalEEMod, the analysis does not quantify the emissions benefit that would occur with implementation of the Specific Plan's range of non-transportation-related sustainability features (e.g., exterior electrical power infrastructure to support electric landscaping equipment, a Leadership in Energy and Environmental Design (LEED) Silver rating for buildings, high-efficiency natural gas appliances, and a 10 percent improvement in energy performance compared with an American Society of Heating, Refrigerating, and Air-Conditioning Engineers [ASHRAE] 90.1-2010 reference baseline building). These emissions benefits are qualitatively described in the impact analysis where applicable. Please refer to **Appendix 4.2-1** for the CalEEMod output files.

### Operational Stationary-Source Emissions

Stationary sources under the Office Scenario include the five emergency diesel generators that would be installed under Phase 1. Additional generators may be installed as part of development constructed under future phases, but their locations and specifications are unknown at this time. Generator information is described further under the Phase 1 approach to analysis.<sup>42</sup>

### 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 handed down another baseline decision, *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (57 Cal.4th 439), which clarified that,

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<sup>42</sup> The Life Sciences Scenario would include up to six process boilers. While this buildout scenario would be the worst-case scenario for stationary source emissions, associated emissions would still be well below BAAQMD's threshold. For consistency with the rest of the operational source analysis, and because impacts would be the same, the stationary source equipment and activity rates defined under the Office Scenario were used to quantify stationary source emissions.

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 Specific Plan, utilizing existing conditions to evaluate criteria pollutant impacts could potentially misinform the public and decision makers with respect to potential climate change impacts for three reasons: 1) natural vehicle fleet mix turnover, 2) changes in on-road emission factors, and 3) changes in renewable content of grid-based electricity, each as described below.

1. The fleet mix in San Mateo County will be different by the time the Specific Plan is fully implemented in 2030, as the percentage of truck traffic to all vehicle traffic changes. Per CT-EMFAC 2017, in 2018, 5.4 percent of the San Mateo County fleet mix was made up of trucks, while in 2030 it is forecasted to increase to 7 percent.<sup>43</sup> Trucks have different emission profiles and are generally more emission-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 Specific Plan is fully operational.
2. On-road vehicle emissions rates are anticipated to lessen in the future due to continuing engine advancements and more stringent environmental regulations. Analyzing existing conditions (2018) and quantifying emissions utilizing 2018 vehicle emissions rates instead of the reduced 2030 vehicle emission rates would not only represent an unrealistic scenario but would also overestimate emissions reductions and potential GHG benefits achieved by the Specific Plan.
3. The electricity intensity factor of the utility servicing the project study area, PG&E, is anticipated to lessen in the future due to the renewable resource targets set by SB 100. Analyzing existing conditions (2018) and quantifying emissions utilizing the 2018 electricity intensity factor instead of the reduced 2030 factor would not only represent an unrealistic scenario but would also overestimate reductions and potential GHG benefits achieved by the Specific Plan.

Accordingly, the CEQA baseline for the purposes of this GHG analysis is defined as Specific Plan buildout (2030) conditions. The 2030 baseline represents the full buildout year under the Specific Plan, with impacts accounting for future fleet changes, appropriate engine exhaust emission factors, and utility electricity intensity factors. Utilizing the Specific Plan buildout conditions as the CEQA baseline is most appropriate to inform public and decision makers with respect to climate change impacts, consistent with current CEQA case law. Where appropriate, emissions under existing conditions (2018) are also presented for informational purposes.

## Phase 1

### Construction Emissions

Construction-related GHG emission sources similar to those described above for the overall project are anticipated with construction of Phase 1. GHG emissions were estimated using the emission

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<sup>43</sup> California Department of Transportation. 2017. *CT-EMFAC 2017*. Available: <https://dot.ca.gov/programs/environmental-analysis/air-quality/project-level-air-quality-analysis>. Accessed: February 3, 2021.

calculation methods provided in CalEEMod, version 2016.3.2, and its technical support documentation. The construction schedule, equipment operating details, trip numbers, trip lengths, electricity consumption from mobile trailers, and material quantities were provided by the project applicant's construction contractor.<sup>44,45</sup> Annual construction emissions were estimated using these project-specific details. Please refer to **Appendix 4.2-1** for the construction modeling inputs and CalEEMod outputs.

### Operational Mobile Source Emissions

GHG emissions from motor vehicles associated with Phase 1 were evaluated using the same methods and models (e.g., EMFAC2017, CalEEMod) described above for the Specific Plan. Phase 1 (2024) daily VMT in the TAZ was estimated to be 335,006 miles.<sup>46</sup>

### Operational Area, Energy, Water, Waste and Land Use Emissions

GHG emissions from other operational sources associated with buildout of Phase 1 were evaluated using the same methods and models (e.g., CalEEMod) described above for the proposed Specific Plan.

### Operational Stationary-Source Emissions

Stationary sources include the five emergency diesel generators. Annual stationary source emissions were estimated in 2030 using CalEEMod, version 2016.3.2. Generator emissions factors and horsepower were based on the makes and models identified by the project applicant.<sup>47, 48, 49, 50</sup> On an annual basis, each generator would run for up to 50 hours per year for testing, consistent with CARB's Airborne Toxic Control Measure for Stationary Compression Ignition Engines and Section 330.3 of BAAQMD Regulation 9, Rule 8. It was assumed that generators would run under full load, which is the most emissions-intensive load. **Table 4.7-3, p. 4.7-24**, summarizes the generator equipment specifications and testing schedule. Note that only the annual generator activity is relevant to the GHG analysis given GHG emissions are typically reported on an annual timescale. See **Appendix 4.2-1** for the CalEEMod output files and generator emissions factors.

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<sup>44</sup> McKinley, Jerry. DPR Construction. October 13, 2020—email to Devan Attenberry of ICF regarding Southline (call requested to discuss outstanding data needs).

<sup>45</sup> As described in Chapter 3, *Project Description*, there are two options for the construction haul truck routes, each using different access/exit roads from the project site. The incremental differences in total route length between the two options do not influence the GHG impact analysis. (Three options were identified at the onset of Draft EIR preparation; one has since been removed from consideration.)

<sup>46</sup> Ibid.

<sup>47</sup> Cummins, Inc. 2017a. *Exhaust Emission Data Sheet 1250DQGAE*. Available: [https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary\\_Asset/pdf/Commercial/Datasheets/Emissions/eds-1110.pdf](https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary_Asset/pdf/Commercial/Datasheets/Emissions/eds-1110.pdf). Accessed: November 11, 2020.

<sup>48</sup> Cummins, Inc. 2017b. *Exhaust Emission Data Sheet 1500DQGAF*. Available: [https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary\\_Asset/pdf/Commercial/Datasheets/Emissions/eds-1111.pdf](https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary_Asset/pdf/Commercial/Datasheets/Emissions/eds-1111.pdf). Accessed: November 11, 2020.

<sup>49</sup> Cummins, Inc. 2018. *Exhaust Emission Data Sheet 500DFEK*. Available: [https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary\\_Asset/pdf/Commercial/Datasheets/Emissions/eds-173.pdf](https://powersuite.cummins.com/PS5/PS5Content/SiteContent/en/Binary_Asset/pdf/Commercial/Datasheets/Emissions/eds-173.pdf). Accessed: November 11, 2020.

<sup>50</sup> Meyers+ Engineers. 2020. *Southline CEQA Response*. May.

**Table 4.7-3. Phase 1 Emergency Generator Technical Specifications and Testing Schedule**

Generator	Building <sup>1</sup>	HP	Hours Tested per Year
1	1	1700	50
2	1	1700	50
3	2	700	50
4	7	1700	50
5	7	1700	50
<b>Total</b>			<b>250</b>

<sup>1</sup> Generators listed include only those known for the buildings constructed as part of Phase 1. Additional generators may be installed as part of development constructed under future phases, but their locations and specifications are unknown at this time.

### Selection of Future Year Baseline Conditions

Similar to the Specific Plan GHG analysis, utilizing existing conditions to evaluate criteria pollutant impacts of Phase 1 would potentially mislead the public and decision makers with respect to potential climate change impacts for three reasons: 1) natural vehicle fleet mix turnover, 2) changes in on-road emission factors, and 3) changes in renewable content of grid-based electricity (detailed further above for the Specific Plan). Accordingly, the CEQA baseline for the purposes of this GHG analysis is defined as Phase 1 opening year (2024) conditions. Where appropriate, emissions under existing conditions (2018) are also presented for informational purposes.

### 4.7.4.3 Impact Evaluation

**Impact GHG-1a. The project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment during construction. (*Project: Less than Significant with Mitigation; Phase 1: Less than Significant with Mitigation*).**

#### Project

Under both the Life Sciences Scenario and Office Scenario, construction associated with new land use developments under the Specific Plan and offsite improvements would result in the temporary generation of GHG emissions. Emissions would originate from construction equipment exhaust, vehicle exhaust, and the use of electricity in mobile trailers. Construction-related GHG emissions would vary substantially throughout buildout under the Specific Plan, depending on the level of activity, length of the construction period, specific construction operations, the types of equipment, and the number of workers.

Currently, the Phase 1 Precise Plan and related offsite improvements are the only project-level development proposals under the proposed Specific Plan. As discussed in Chapter 3, *Project Description*, the project applicant has identified additional phases for future development permitted under the Specific Plan. Because the timing and intensity of future development projects is not known, the precise effects of construction activities associated with buildout of the project site cannot be accurately quantified.

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 implementing feasible BMPs. If a project does not implement feasible BMPs, it is anticipated that it would conflict

with statewide emissions goals. 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. Note that BAAQMD's recommended BMP to recycle and reuse at least 50 percent of construction waste or demolition materials is not as rigorous as the City's applicable requirement that new construction submit a Waste Management Plan identifying how at least 65 percent of non-inert project waste materials and 100 percent of inert materials will be diverted from the landfill through recycling and salvage. Also, BAAQMD's recommended BMP to use alternative fuel in 15 percent of the construction vehicles/equipment would be bolstered with implementation of **Mitigation Measure AQ-4**, which requires the construction fleet to use renewable diesel. Consequently, the impact from construction related GHG emissions would be *less than significant with mitigation*.

### Phase 1

Construction of Phase 1 is scheduled to commence in late 2021 and end in early 2024. The types of construction emissions generated by Phase 1 would be similar to those described above for the Specific Plan. Construction activities would include the demolition of structures and parking lots on the project site (i.e., extending beyond the boundary of the Phase 1 site), excavation, grading, paving, utility installations, off-site area improvements, construction of three new buildings and a parking structure, and landscaping. These activities would require construction equipment and on-road vehicles such as haul trucks for demolition debris and concrete trucks for asphalt deliveries. Site grading and excavation would be required for building foundations, utilities, and pervious pavement and landscaping. Electricity would be consumed by the mobile trailers stationed on-site. Estimated construction GHG emissions are presented in **Table 4.7-4, p. 4.7-25**.

**Table 4.7-4. Estimated Construction GHG Emissions from Phase 1 (metric tons)**

Construction Year	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
2021	614	< 1	< 1	633
2022	3,973	1	< 1	4,083
2023	1,568	< 1	< 1	1,594
2024	4	< 1	< 1	4
<b>Total<sup>a</sup></b>	<b>6,159</b>	<b>1</b>	<b>&lt; 1</b>	<b>6,314</b>

Source: Refer to **Appendix 4.2-1** for construction modeling outputs.

Notes:

<sup>a</sup>. Totals may not add up because of rounding.

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 implementing feasible BMPs. Therefore, construction-related GHG emissions from Phase 1 would be mitigated to less than significant with implementation of **Mitigation Measure GHG-1**, which requires the use of the BMPs recommended by BAAQMD during construction, thereby avoiding any conflict with statewide emission reduction goals. Note that BAAQMD's recommended BMP to recycle and reuse at least 50 percent of construction waste or demolition materials is not as rigorous as the City's applicable requirement that new construction submit a Waste Management Plan identifying how at least 65 percent of non-inert project waste materials and 100 percent of inert materials will be

diverted from the landfill through recycling and salvage. This impact would be ***less than significant with mitigation***.

### **Mitigation Measure GHG-1: Require Implementation of BAAQMD-recommended Construction BMPs (All Phases)**

The Phase 1 applicant and applicants of future Precise Plans shall require their contractors, as a condition in contracts, to reduce construction-related GHG emissions by implementing BAAQMD's recommended BMPs, based on BAAQMD's CEQA Guidelines:

- Ensure that alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet,
- Use local building materials (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.

**Impact GHG-1b. The project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment during operation. (*Project: Less than Significant; Phase 1: Less than Significant*).**

### **Project**

Operation of land uses under the Specific Plan would generate direct and indirect GHG emissions. Sources of direct emissions include vehicles, emergency generators, natural gas combustion, and landscaping activities. Indirect emissions would be generated by waste and wastewater generation as well as water use.<sup>51</sup> As discussed in Section 4.7.4.2, *Approach to Analysis*, the emissions estimate quantified the effect of the following: the Specific Plan's requirement to utilize 100 percent carbon-free electricity for all operational electricity needs through participation in programs such as PG&E Solar Choice or Peninsula Clean Energy, weather-based irrigation controls, compliance with CALGreen (i.e., low-flow fixtures), the VMT reduction associated with the extension of Southline Avenue, and the 23 percent reduction in VMT associated with the project's requirement to achieve an alternative mode share of 45 percent.<sup>52</sup> Consistent with the capabilities of CalEEMod, this analysis does not quantify the emissions benefit from the following: vehicle fuel switching, LEED Silver-rated buildings, exterior electrical power infrastructure to support electric landscaping equipment, high-efficiency natural gas appliances, and a 10 percent improvement in energy performance compared with an ASHRAE 90.1-2010 reference baseline building.

**Table 4.7-5, p. 4.7-27**, summarizes annual area-, energy-, mobile-, stationary-, waste-, water-, and land use-related emissions generated under existing conditions (2018), 2030 conditions without the project (assuming no other development takes place in the Specific Plan area), and 2030 conditions with the project. Emissions under Specific Plan buildout in 2030 are compared to 2030 emissions without the Specific Plan.

<sup>51</sup> The existing VMT on the roadways within the off-site improvement areas is captured by the larger, TAZ-level estimate of VMT based on C/CAG's travel demand model (see *Operational Mobile-Source Emissions* above). The model does not provide data at a scale granular enough to disaggregate the TAZ-level VMT to only these select roadway segments, intersections, and rail-crossings.

<sup>52</sup> Ibid.

**Table 4.7-5. Estimated Annual Specific Plan Operational GHG Emissions (Office Scenario) (metric tons)**

Condition/Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	% of Total CO <sub>2</sub> e
<b>Existing (2018)</b>					
Area sources	< 1	< 1	< 1	< 1	< 0.1%
Energy sources	312	< 1	< 1	313	0.9%
Mobile sources	33,714	2	< 1	33,761	98.6%
Stationary sources <sup>a</sup>	0	0	0	0	0.0%
Waste generation	55	3	< 1	137	0.4%
Water consumption	103	2	< 1	172	0.5%
Land use <sup>b</sup>	< 1	< 1	< 1	-128	-0.4%
Total existing <sup>c</sup>	34,184	7	< 1	34,256	—
<b>2030 without Project</b>					
Area sources	< 1	< 1	< 1	< 1	< 0.1%
Energy sources	127	< 1	< 1	128	0.4%
Mobile sources	25,554	1	< 1	25,581	74.7%
Stationary sources <sup>a</sup>	0	0	0	0	0.0%
Waste generation	55	3	0	137	0.4%
Water consumption	49	2	0	118	0.3%
Land use <sup>b</sup>	< 1	< 1	< 1	-128	-0.4%
Total 2030 without Specific Plan <sup>c</sup>	25,785	7	< 1	25,835	—
<b>2030 with Project</b>					
Area sources	< 1	< 1	< 1	< 1	< 0.1%
Energy sources	3,045	< 1	< 1	3,063	4.8%
Mobile sources	58,572	2	< 1	58,634	92.2%
Stationary sources	196	0	< 1	196	0.3%
Waste generation	635	37	< 1	1,572	2.5%
Water consumption	126	13	< 1	541	0.9%
Land use <sup>b</sup>	< 1	< 1	< 1	-432	-0.7%
Total 2030 with Specific Plan <sup>c</sup>	62,573	53	< 1	63,574	—
<b>Net Increase with Project</b>					
2030 with Project vs. 2030 without Project	36,789	46	< 1	37,739	

Source: Refer to **Appendix 4.2-1** for operation model outputs and mobile emissions calculations.

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent

<sup>a</sup>. No stationary sources were identified as part of existing conditions.

<sup>b</sup>. The proposed project would result in a net gain of 419 trees (the 581 new trees to be planted minus 162 existing trees to be removed) and 1.81 acres of vegetation (4.86 acres proposed compared with 3.05 acres existing) at the project site, resulting in increases in carbon sequestration and therefore a net carbon decrease in the atmosphere.

<sup>c</sup>. Values may not add up because of rounding.

The following sections present the sector-by-sector analysis of GHG impacts, consistent with OPR, CARB, and BAAQMD guidance.

### **Area-Source Emissions**

Area-source GHG emissions from the Specific Plan would be generated by landscaping-related sources involving fuel combustion, such as lawn mowers. The proposed project would incorporate exterior electrical power infrastructure to support electric landscaping equipment. It would also plant trees, install biotreatment areas, and plant native and drought-tolerant landscaping as opposed to grass, which would minimize the routine use of mowers and other landscaping equipment.

The Scoping Plan does not include specific measures or 2030 emissions reduction requirements for landscaping equipment. OPR guidance recommends that land use development projects should strive to avoid the use of fossil fuels.<sup>53</sup> Although a transition away from fossil-fueled equipment would be needed to achieve carbon neutrality by 2045, the Scoping Plan does not assume the use of all-electric landscaping equipment in the 2030 reduction analysis. The proposed landscaping would reduce landscaping emissions compared with emissions from buildings with grass areas. This is consistent with the Scoping Plan's overall goal of reducing emissions from fossil-fueled landscaping equipment.

### **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 from fossil fuels. The 2017 Scoping Plan outlines strategies for reducing energy demand and fossil fuel use while increasing energy efficiency and renewable energy generation. These strategies include transitioning to cleaner fuels, ensuring greater efficiency in existing buildings, and the electrification of end uses in commercial sectors. Although OPR recommends that new buildings should avoid the use of fossil fuels, the Scoping Plan does not assume all-electric buildings in the 2030 reduction analysis.

The proposed project 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 LEED Silver certification. Furthermore, buildings would achieve a 10 percent improvement in energy performance compared with an ASHRAE 90.1-2010 reference baseline building. Emissions from electricity consumption would be eliminated through the Specific Plan's requirement to purchase 100 percent carbon-free electricity. New construction would be encouraged to design all-electric buildings, and any new natural gas appliances in buildings that use natural gas will be high-efficiency units. Although the Specific Plan encourages an all-electric design, it does not prohibit buildings from including natural gas appliances and the City has not adopted such regulations through changes to the building code. Natural gas appliances may be needed for individual tenant operations, particularly for R&D uses and operation of retail and/or tenant-serving kitchen uses in the amenities building. Furthermore, although the Specific Plan would result in the generation of emissions from natural gas use, the proposed project's implementation of sustainability features would offset the increase in emissions from natural gas. In

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<sup>53</sup> Office of Planning and Research. 2018. *CEQA and Climate Change Advisory*. Discussion draft. Available: [https://opr.ca.gov/docs/20181228-Discussion\\_Draft\\_Climate\\_Change\\_Advisory.pdf](https://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Advisory.pdf). Accessed: November 11, 2020.

particular, the Specific Plan's requirement to purchase 100 percent carbon-free electricity would exceed the statewide mandates for renewable energy, as noted in *Regulatory Framework*, above. In the buildout year of 2030, the proposed project would use 100 percent carbon-free electricity; the statewide target for renewables would be 60 percent. As such, the proposed project would reduce emissions relative to the RPS target in 2030. The reduction would amount to 3,102 metric tons of CO<sub>2</sub>e, which is the difference between 100 percent renewables and 60 percent renewables, based on PG&E's utility emission factor for 2030.

Although the proposed project's natural gas use would result in a net increase in energy-related emissions (i.e., 2,935 metric tons of CO<sub>2</sub>e) (see **Table 4.7-5, p. 4.7-27** [difference between existing and 2030 with Specific Plan]), this net increase in energy-related emissions would be more than offset by the Specific Plan's requirement to purchase 100 percent carbon-free electricity.

### ***Mobile-Source Emissions***

As discussed in Section 4.15, *Transportation and Circulation*, of this EIR, the proposed project would meet the criteria set by OPR and CEQA statute to establish the presumption of a less-than-significant impact on VMT under SB 743. Specifically, the proposed project is an employment center within 0.5 mile of a major transit station and a high-quality transit corridor, with a parking ratio below what would otherwise be required by the City for projects of this type. Project elements would be designed to encourage transit use and reduce the number of automobile trips to and from the site. Furthermore, the proposed Southline Avenue extension would not be expected to increase VMT, being a street extension 0.25 mile in length with mostly local circulation effects. As discussed in Section 4.7.4.2, *Approach to Analysis*, there is a nexus between SB 743 and the state's goals to reduce GHG emissions; as such, if the proposed project is consistent with the SB 743 screening thresholds, it would be considered to have a less-than-significant GHG impact related to mobile emissions. Furthermore, as an infill transit-oriented development, the proposed project is anticipated to achieve an alternative mode share of 45 percent under the City's TDM Ordinance, resulting in a 23 percent reduction in project VMT.<sup>54</sup> The proposed project would include mobility hubs to accommodate a range of nearby project-transit services and reduce the need for private vehicle use by tenants and visitors. The project would provide electric vehicle charging infrastructure on-site for 10 percent of the parking spaces. The project would also expand pedestrian and bicycle infrastructure within the project site by expanding sidewalks and providing short- and long-term bicycle parking with showers and lockers to accommodate long-term users; therefore, the proposed project would be consistent with SB 743 and state and local policies to encourage transit-oriented development and reduce transportation emissions, and would not conflict with the state's long-term emissions reduction trajectory.

### ***Stationary-Source Emissions***

As shown in **Table 4.7-5, p. 4.7-27**, emergency generator testing would generate 196 metric tons of CO<sub>2</sub>e per year in 2030. This is well below BAAQMD's stationary-source threshold of 10,000 metric tons of CO<sub>2</sub>e per year. The project would not include any other significant stationary sources of GHGs.

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<sup>54</sup> Ibid.

***Waste Emissions***

Solid waste may be disposed of in landfills or diverted for recycling, composting, or reuse. GHG emissions from landfills are generated through the anaerobic breakdown of material. The Scoping Plan aims to reduce waste emissions by diverting waste away from landfills through waste reduction, reuse, composting, and material recovery. In addition, AB 341 requires mandatory recycling for certain commercial businesses.

During construction and demolition, at least 65 percent of non-inert project waste materials and 100 percent of inert materials would be diverted from the landfill through recycling and salvage, as required by the City's municipal code (Chapter 15.60). The applicant would also submit a Waste Management Plan.

During operations, the Specific Plan would incorporate extensive recycling and composting facilities to divert organic materials away from landfills and incorporate dedicated space and waste collection infrastructure (i.e., for batteries, mercury-containing light fixtures, electronic waste). These features would be consistent with the 2017 Scoping Plan's overall goal of reducing waste emissions and its specific strategy to avoid CH<sub>4</sub> emissions at landfills by reducing the disposal of waste and organics in landfills. In addition, these features would support and comply with the mandatory recycling requirement of AB 341 and support the state's goal to reduce landfill waste and thus GHG emissions.

***Water and Wastewater Emissions***

Indirect GHG emissions result from the production of the electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required depends on the volume of water as well as the source of the water. Additional wastewater emissions include CH<sub>4</sub> and N<sub>2</sub>O, although these are generated by wastewater treatment at individual wastewater treatment plants. The proposed project does not include any new wastewater treatment plants.

The 2017 Scoping Plan outlines objectives and goals to reduce GHGs in the water sector. These include using and reusing water more efficiently through greater water conservation, using drought-tolerant landscaping, implementing stormwater capture measures, and recycling water. 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 incorporate several water conservation features to reduce indoor and outdoor water use. Native and drought-tolerant landscaping would reduce overall exterior water needs. Drip irrigation, rotary sprays, and other efficient methods for delivering water for landscaping would be incorporated, as would targeted hydro-zoning to address species-specific water needs. Weather-based irrigation controls would be incorporated to reduce potable water use when weather conditions allow. Interior water fixtures would include high-efficiency toilets, urinals, showerheads, and lavatories to reduce indoor water usage, in compliance with CALGreen standards. Furthermore, the proposed project would comply with all other applicable water conservation (indoor and outdoor) measures, including Title 24, Part 6, the California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards, and the California Department of Water Resources Model Water Efficient Landscape Ordinance. 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 and distributing water.

### ***Land Use Emissions***

The Specific Plan would result in a net gain of 419 trees (which equals the 581 new trees to be planted minus the 162 existing trees to be removed) and 1.81 acres of vegetation (which equals the 4.86 acres proposed minus the 3.05 acres existing) in the Specific Plan area. The Specific Plan would thus be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and assist with meeting the state's goals for climate neutrality (e.g., EO B-55-18) beyond 2030.

### ***Conclusion***

As described above, stationary-source emissions would be below BAAQMD's stationary-source threshold. The proposed Specific Plan's sustainability features represent a robust suite of strategies (i.e., BMPs) that are consistent with applicable policies from the Scoping Plan and other regulatory programs for the area, electricity, mobile, waste, and water sectors. The Specific Plan would also be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and limiting land use emissions. Finally, the Specific Plan would exceed statewide RPS targets by 40 percent in 2030 by purchasing 100 percent carbon-free electricity. Although the Specific Plan would involve the use of natural gas, the Specific Plan's requirement to purchase carbon-free electricity would more than offset the net increase in emissions from energy sources between the Specific Plan in 2030 and existing conditions. Therefore, operational GHG impacts would be ***less than significant***. No mitigation is required.

### **Phase 1**

The types of operational GHG emissions for Phase 1 would be similar to those described above for the Specific Plan. The analysis includes emissions benefits from the same sustainability design features described for the Specific Plan. **Table 4.7-6, p. 4.7-32**, summarizes by source emissions generated under existing conditions (2018) and 2024 conditions with and without Phase 1.

The following sections present the sector-by-sector analysis of GHG impacts, consistent with OPR, CARB, and BAAQMD guidance. Because Phase 1 would be in operation in 2024, the 2017 Scoping Plan, which outlines reduction targets through 2030, is the most relevant regulatory document for evaluating Phase 1.

**Table 4.7-6. Estimated Annual Unmitigated Phase 1 Operational GHG Emissions (metric tons)**

Condition/Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	% of Total CO <sub>2</sub> e
<b>Existing (2018)</b>					
Area sources	< 1	< 1	< 1	< 1	< 0.1%
Energy sources	312	< 1	< 1	313	0.9%
Mobile sources	33,714	2	< 1	33,761	98.6%
Stationary sources <sup>a</sup>	0	0	0	0	0.0%
Waste generation	55	3	< 1	137	0.4%
Water consumption	103	2	< 1	172	0.5%
Land use <sup>b</sup>	< 1	< 1	< 1	-128	-0.4%
Total existing <sup>c</sup>	34,184	7	< 1	34,256	—
<b>2024 without Phase 1</b>					
Area sources	< 1	< 1	< 1	< 1	< 0.1%
Energy sources	165	< 1	< 1	166	0.4%
Mobile sources	28,549	1	< 1	28,582	71.8%
Stationary sources <sup>a</sup>	0	0	0	0	0.0%
Waste generation	55	3	< 1	137	0.3%
Water consumption	60	2	0	129	0.3%
Land Use <sup>b</sup>	< 1	< 1	< 1	-128	-0.3%
Total 2024 without Phase 1 <sup>c</sup>			< 1		—
<b>2024 with Phase 1</b>					
Area sources	< 1	< 1	< 1	< 1	< 0.1%
Energy sources	880	< 1	< 1	885	2.2%
Mobile sources	38,184	2	< 1	38,228	96.1%
Stationary sources	196	< 1	< 1	196	0.5%
Waste generation	238	14	< 1	590	1.5%
Water consumption	31	3	< 1	134	0.3%
Land Use <sup>b</sup>	< 1	< 1	< 1	-237	-0.6%
Total 2024 with Phase 1 <sup>c</sup>	39,529	19	< 1	39,797	—
<b>Net Increase with Phase 1</b>					
2024 with Phase 1 vs. 2024 without Phase 1 <sup>c</sup>	10,701	12	< 1	10,912	—

Source: Refer to **Appendix 4.2-1** for operation model outputs and mobile emissions calculations.

Notes: CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent

a. No stationary sources were identified as part of existing conditions.

b. Phase 1 would result in a net gain of 149 trees (the 311 new trees to be planted minus 162 existing trees to be removed) and 0.92 acre of vegetation (3.97 acres proposed compared with 3.05 acres existing) at the project site, resulting in increases in carbon sequestration and therefore a net carbon decrease in the atmosphere.

c. Values may not add up because of rounding.

### Area-Source Emissions

Area-source GHG emissions from Phase 1 would be generated by landscaping-related sources involving fuel combustion, such as lawn mowers. Phase 1 would incorporate exterior electrical power infrastructure to support electric landscaping equipment. Phase 1 would also plant trees,

install biotreatment areas, and plant native and drought-tolerant landscaping as opposed to grass, which would minimize the routine use of mowers and other landscaping equipment.

As noted above for the project analysis, the Scoping Plan does not include specific measures or 2030 emissions reduction requirements for landscaping equipment. The proposed landscaping would reduce landscaping emissions compared with emissions from buildings with grass areas and include a project feature (i.e., exterior electrical power infrastructure) to encourage further emissions reductions. This is consistent with the Scoping Plan's overall goal of reducing emissions from fossil-fueled landscaping equipment.

### ***Energy Emissions***

Phase 1 requires building design features that reduce energy consumption and increase renewable energy generation, consistent with the Scoping Plan. For example, all Phase 1 buildings would achieve LEED Silver certification. Buildings would also achieve a 10 percent improvement in energy performance compared with an ASHRAE 90.1-2010 reference baseline building. Emissions from electricity consumption would be eliminated by the Specific Plan's requirement to purchase 100 percent carbon-free electricity. Any new natural gas appliances would be high-efficiency units. Although OPR recommends that new buildings should avoid the use of fossil fuels, the Scoping Plan does not assume all-electric buildings in the 2030 reduction analysis. However, although Phase 1 would result in the generation of emissions from natural gas use, the implementation of sustainability features would offset the increase in emissions from natural gas. In particular, the requirement to purchase 100 percent carbon-free electricity would exceed statewide mandates for renewable energy, as noted in the *Regulatory Framework*, above. Phase 1 development would use 100 percent carbon-free electricity. The statewide target for renewables in 2024 (the opening year) would be 40 percent and in 2030 (the next statutory milestone) would be 60 percent. As such, Phase 1 would reduce emissions relative to the RPS target in 2030 by 1,097 metric tons CO<sub>2</sub>e, which is the difference between 100 percent renewables and 60 percent renewables, based on PG&E's utility emissions factor for 2030.

Although natural gas use under Phase 1 would result in a net increase in energy-related emissions amounting to 719 metric tons of CO<sub>2</sub>e (see **Table 4.7-6, p. 4.7-32** [difference between existing and 2024 with Phase 1]), this net increase in energy-related emissions would be more than offset by the requirement for Phase 1 to purchase 100 percent carbon-free electricity.

### ***Mobile-Source Emissions***

As discussed in Section 4.15, *Transportation and Circulation*, Phase 1 meets the criteria set by OPR and CEQA statute to establish the presumption of a less-than-significant impact on VMT under SB 743. Specifically, Phase 1 is part of an employment center within 0.5 mile of a major transit station and high-quality transit corridor, with a parking ratio below what would otherwise be required by the City for projects of this type. Project elements are designed to encourage transit use and reduce the number of automobile trips to and from the site. Furthermore, the proposed Southline Avenue extension would not be expected to increase VMT, being a street extension 0.25 mile in length with mostly local circulation effects. As discussed in Section 4.7.4.2, *Approach to Analysis*, there is a nexus between SB 743 and the state's goals to reduce GHG emissions; as such, because Phase 1 is consistent with SB 743 screening thresholds, it would be considered to have a less-than-significant GHG impact from mobile emissions. Phase 1 would not conflict with the state's long-term emissions reduction trajectory for the transportation sector.

***Stationary-Source Emissions***

As shown in **Table 4.7-6, p. 4.7-32**, emergency generator testing would generate 196 metric tons of CO<sub>2</sub>e per year in 2024. This is below BAAQMD's stationary source threshold of 10,000 metric tons of CO<sub>2</sub>e per year.

***Waste Emissions***

Phase 1 would incorporate extensive recycling and composting facilities to divert organic materials away from landfills and incorporate dedicated space and waste collection infrastructure for batteries, mercury-containing light fixtures, and electronic waste. During construction and demolition, at least 65 percent of non-inert project waste materials and 100 percent of inert materials would be diverted from the landfill through recycling and salvage, as required by the City's municipal code (Chapter 15.60). The applicant would also submit a Waste Management Plan. These features would be consistent with the Scoping Plan's overall goal of reducing waste emissions and its specific strategy to avoid landfill CH<sub>4</sub> emissions by reducing the disposal of waste and organics in landfills. In addition, these features would support and comply with the mandatory recycling requirement of AB 341 as well as the state's goal of reducing waste in landfills and thus GHG emissions.

***Water Emissions***

Phase 1 does not include any features that would conflict with the state's measures and programs related to water conservation, water supply, drought-tolerant landscaping, stormwater capture, and water recycling. Phase 1 would incorporate several water conservation features that would reduce indoor and outdoor water use. Native and drought-tolerant landscaping would reduce overall exterior water needs. Drip irrigation, rotary sprays, and other efficient methods of delivering water for landscaping would be incorporated, as would targeted hydro-zoning to address species-specific water needs. Weather-based irrigation controls would be incorporated to reduce potable water use when weather conditions allow. Interior water fixtures would include high-efficiency toilets, urinals, showerheads, and lavatories to reduce indoor water usage, in compliance with CALGreen standards. Furthermore, the proposed project would comply with all other applicable water conservation (indoor and outdoor) measures, including Title 24, Part 6, the California Energy Code baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards, and the California Department of Water Resources Model Water Efficient Landscape Ordinance. These features would be 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 and distributing water.

***Land Use Emissions***

Phase 1 would result in a net gain of 149 trees (which equals the 311 new trees to be planted minus the 162 existing trees to be removed) and 0.93 acres of vegetation (which equals the 3.97 acres proposed minus the 3.05 acres existing) at the project site. Therefore, Phase 1 would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and assist with meeting the state's goals for climate neutrality (e.g., EO B-55-18) beyond 2030.

***Conclusion***

As described above, stationary-source emissions would be below BAAQMD's stationary-source threshold. The Phase 1 sustainability features represent a robust suite of strategies (i.e., BMPs) that

are consistent with the applicable policies from the Scoping Plan and other regulatory programs for the area, electricity, mobile, waste, and water sectors. Phase 1 would also be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and limiting land use emissions. Finally, Phase 1 would exceed the statewide RPS targets by 40 percent in 2030 (and 60 percent in 2024) by purchasing 100 percent carbon-free electricity. Although Phase 1 would involve the use of natural gas, the carbon-free electricity commitment would more than offset the net increase in emissions from energy sources between Phase 1 and existing conditions. Therefore, operational GHG impacts would be ***less than significant***.

**Impact GHG-2. The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs during construction and operation. (Project: Less than Significant with Mitigation; Phase 1: 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. Although not legislatively adopted, EO S-03-05 establishes the state's long-term goal to reduce GHG emissions by 80 percent from 1990 levels by 2050. EO B-55-18 sets a more ambitious state goal of net-zero GHG emissions by 2045.

CARB adopted the 2008 Scoping Plan and 2014 first update 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 for achieving the 2030 GHG reduction goal described in SB 32. There is currently 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 requirements, 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 to 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 emissions of GHGs, and impacts would be ***less than significant with mitigation***.

As described in **Impact GHG-1b**, stationary-source emissions would be below BAAQMD's stationary-source threshold. The Specific Plan sustainability features represent a robust suite of strategies that are consistent with applicable policies from the Scoping Plan and regulatory

programs for the area, electricity, mobile, waste, and water sectors. The Specific Plan would also be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and limiting land use emissions. These project features would assist the state with meeting its reduction targets under SB 32 as well as its carbon neutrality goal under EO B-55-18. Although the use of natural gas in future development would result in GHG emissions that would not be entirely consistent with OPR's applicable guidance, the Specific Plan's requirement to purchase 100 percent carbon-free electricity would exceed statewide RPS targets by 40 percent in 2030. As such, because the proposed project would go beyond the statewide mandates for renewable energy, a net increase in emissions from energy sources would not occur (see *Energy Emissions* in **Impact-GHG-1b** above), which is consistent with the state's overarching climate goals. Therefore, the GHG impacts of the proposed project would be ***less than significant*** because the project would be consistent with state goals to reduce GHG emissions.

### Phase 1

Phase 1 construction activities would also 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 Phase 1 would not conflict with or obstruct implementation of an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs. This impact would be ***less than significant with mitigation***.

As described in **Impact GHG-1b**, stationary-source emissions would be below BAAQMD's stationary-source threshold. Phase 1 sustainability features represent a robust suite of strategies that are consistent with applicable policies from the Scoping Plan and other regulatory programs for the area, electricity, mobile, waste, and water sectors. Phase 1 would also be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration and limiting land use emissions. These project features would assist the state with meeting its reduction targets under AB 32 and SB 32 as well as its carbon neutrality goal under EO B-55-18. Although the use of natural gas in Phase 1 operations would result in GHG emissions would not be entirely consistent with OPR's applicable guidance, the Specific Plan's requirement to purchase 100 percent carbon-free electricity would exceed statewide RPS targets by 40 percent in 2030. As such, because Phase 1 would go beyond the statewide mandates for renewable energy, a net increase in emissions from energy sources would not occur (see *Energy Emissions* in **Impact-GHG-1b** above), which is consistent with the state's overarching climate goals. Therefore, the GHG impacts of Phase 1 would be ***less than significant*** because the project would be consistent with state goals to reduce GHG emissions.

### 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-duty trucks. The SCS policies include a mix of strategies that encourage compact growth patterns, mixed-use designs, alternative transportation, transit, mobility and access, network expansion, and transportation investment.

Implementation of the SCS is intended to improve the efficiency of the transportation system and support a variety of land use types throughout the Bay Area that meet market demands in a balanced and sustainable manner. The proposed project would be 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 reductions.

The project, including Phase 1, would allow development that would help accommodate forecasted growth within the site. Plan Bay Area aims to increase average densities and infill development within Transit Priority Areas (TPAs) as a means to increase accessibility to quality transit which can reduce VMT and associated GHGs. Consistent with MTC goals, the project would be a transit-oriented infill project with accessible pedestrian and bicycle infrastructure. The Specific Plan area is designated as a TPA under Plan Bay Area because it is within 0.5 mile of a major transit station and high-quality transit corridor.<sup>55</sup> Furthermore, the proposed project is anticipated to achieve an alternative mode share of 45 percent under the City's TDM Ordinance, resulting in a 23 percent reduction in VMT.<sup>56</sup> These sustainability design features would support alternative transportation within the site, which could help reduce per-service-population GHG emissions from passenger vehicles, consistent with Plan Bay Area. Therefore, the project would be consistent with the goals of SB 375 and Plan Bay Area. This impact would be *less than significant*.

## South San Francisco Climate Action Plan

As discussed above, the City has not adopted a qualified GHG reduction plan beyond 2020 for the purposes of showing consistency with the 2030 SB 32 target. Thus, project-level tiering per CEQA Guidelines Section 15183.5 is not an applicable methodology for assessing the proposed project's GHG impacts. Nonetheless, the City's 2014 CAP measures and development requirements still apply to projects constructed and operated after 2020. As such, the analysis below evaluates the proposed project's consistency with the CAP to determine whether the project would conflict with this local plan adopted for the purpose of reducing the emissions of GHGs.

The impacts of the proposed project are analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. In Appendix E of the CAP, the City offers a Development Review Checklist that provides project-level measures relevant to new development. Phase 1 was analyzed to determine whether it would conflict with the measures in the Development Review Checklist. As the impacts of the proposed project are analyzed at a program level, instead of using the project-level Development Review Checklist, the proposed project is analyzed to determine whether it would conflict with the CAP's emission reduction measures.

### Project

**Table 4.7-7, p. 4.7-38**, presents the consistency analysis of the proposed project and the applicable CAP emission reduction measures. With implementation of **Mitigation Measure AQ-4**, the project construction fleet would be required to use renewable diesel fuel, thereby being consistent with CAP Measure 2.2. The proposed project would be consistent with all the other CAP emission reduction

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<sup>55</sup> Metropolitan Transportation Commission (MTC). 2019. *Transit Priority Areas (2017)*. Available: [https://opendata.mtc.ca.gov/datasets/d97b4f72543a40b2b85d59ac085e01a0\\_0?geometry=-122.493%2C37.625%2C-122.330%2C37.649](https://opendata.mtc.ca.gov/datasets/d97b4f72543a40b2b85d59ac085e01a0_0?geometry=-122.493%2C37.625%2C-122.330%2C37.649). Accessed: February 3, 2021.

<sup>56</sup> Ibid.

measures without mitigation. Therefore, this impact would be *less than significant with mitigation*.

**Table 4.7-7. Consistency Analysis of Proposed Project with CAP Measures**

#	Measure	Consistent	Explanation
1.1	Expand active transportation alternatives by providing infrastructure and enhancing connectivity for bicycle and pedestrian access.	Yes	Class 2 bike lanes would be constructed on Southline Avenue. As part of the off-site improvements to circulation, a shared bicycle-pedestrian path would be constructed on the east side of Huntington Avenue and on the west side of Huntington Avenue from Southline Avenue to the BART stations. Short- and long-term bicycle parking would be installed with showers and lockers. The proposed project also includes improvements to the Centennial Way Trail. The TDM Plan would offer subsidies for transit and micromobility for employee commute trips (such as bus, rail, ferry, bike-share, and scooter-share).
1.2	Support expansion of public and private transit programs to reduce employee commutes.	Yes	The proposed project's TDM Plan is designed to achieve a 45 percent alternative mode share as a result of direct access to transit (BART and SamTrans), onsite amenities for bicycle and pedestrian access, shuttle service to Caltrain, carpool and vanpool facilities and services, mode shift incentives, and a mobility hub.
1.3	Integrate higher-density development and mixed-use development near transit facilities and community facilities and reduce dependence on autos through smart parking practices.	Yes	The project will provide higher-intensity office/R&D uses adjacent and connected to nearby transit (Caltrain, BART, and SamTrans buses along El Camino Real). An amenities building (Building 2) would include a public restaurant, a private cafeteria for campus tenants, a private gym for campus tenants, and an auditorium/event space to complement the office uses of the surrounding buildings.
2.1	Expand the use of alternative-fuel vehicles.	Yes	At least ten percent of onsite parking spaces would be installed with electric vehicle charging infrastructure.
2.2	Reduce emissions from off-road vehicles and equipment.	Yes	Buildings would be installed with exterior electrical power infrastructure to support electric landscaping equipment. <b>Mitigation Measure AQ-4</b> would require the construction fleet to use renewable diesel fuel.
3.1	Maximize energy efficiency in the built environment through standards and the plan review process.	Yes	All buildings would achieve a LEED version 4 Silver rating and a 10 percent improvement in energy performance compared with ASHRAE 90.1-2010 reference baseline building. Additional energy efficiency measures include energy-efficient windows, additional insulation, external and internal shade structures, LED lighting, daylighting and occupancy controls, and efficient space heating and cooling systems.

#	Measure	Consistent	Explanation
3.2	Support retrofits to existing residential structures.	N/A	The proposed project does not involve retrofits to existing residential structures.
3.3	Encourage energy efficiency retrofits to the existing nonresidential building stock that reduce operating costs and increase industry competitiveness.	N/A	The proposed project does not involve retrofits to existing nonresidential structures.
3.4	Address heat island issues and expand the urban forest.	Yes	Vehicle parking would be provided in below- and above-ground parking structures instead of surface parking, avoiding the heat island impacts associated with surface asphalt parking. The Specific Plan includes design guidelines to encourage use of light-colored or reflective roofing materials. The proposed project would result in a net gain of 419 trees (which equals the 581 new trees to be planted minus the 162 existing trees to be removed) and 1.81 acres of vegetation (4.86 acres proposed compared with 3.05 acres existing).
3.5	Promote energy information and sharing and educate the community about energy-efficient behaviors and construction.	N/A	The City would implement this measure, which is not applicable to individual development projects.
4.1	Promote installation of alternative energy facilities.	Yes	The proposed project would not require on-site renewable energy systems. However, the Specific Plan would require the purchase of 100 percent carbon-free electricity for all operational electricity needs through participation in programs such as PG&E Solar Choice or Peninsula Clean Energy.
4.2	Reduce the cost of alternative energy installations.	N/A	The City would implement this measure, which is not applicable to individual development projects.
4.3	Support green industries.	N/A	The City would implement this measure, which is not applicable to individual development projects.
5.1	Develop a waste reduction strategy to increase recycling and reuse of materials to achieve a 75 percent diversion of landfilled waste by 2020.	N/A	The City would implement this measure, which is not applicable to individual development projects.
5.2	Reduce landfill emissions.	N/A	See #5.1.

#	Measure	Consistent	Explanation
6.1	Reduce water demand.	Yes	The proposed project would comply with the 2019 CALGreen standards, as interior water fixtures would include high-efficiency toilets, urinals, showerheads, and lavatories, reducing indoor water use. Stormwater runoff from the project site will be treated with LID methods, which may consist of bioretention basins, flow through planters, pervious permeable pavements. Native and drought-tolerant landscaping would reduce overall exterior water needs. Drip irrigation, rotary sprays, and other efficient methods for delivering water for landscaping would be incorporated, as would targeted hydro-zoning to address species-specific water needs. Weather-based irrigation controls would be incorporated to reduce potable water use when weather conditions allow. Selected tree species will be climate-appropriate to reduce water use.
6.2	Provide alternative water resources for irrigation.	Yes	The proposed project would include a stormwater management plan and implement engineered controls to allow stormwater filtering, storage, and flood control. The proposed project would also be required to comply with the City's water efficient landscaping regulations, per the City's Municipal Code (Chapter 20.300.007).
7.1	Promote energy efficiency policies at municipal facilities.	N/A	The City would implement this measure, which is not applicable to individual development projects.
7.2	Conserve municipal water.	N/A	The City would implement this measure, which is not applicable to individual development projects.
7.3	Reduce municipal waste.	N/A	The City would implement this measure, which is not applicable to individual development projects.
7.4	Establish budgeting and administrative practices that support the CAP.	N/A	The City would implement this measure, which is not applicable to individual development projects.
Source: City of South San Francisco. 2014. <i>Climate Action Plan</i> . Available: <a href="https://www.ssf.net/home/showpublisheddocument?id=5640">https://www.ssf.net/home/showpublisheddocument?id=5640</a> . Accessed: February 3, 2021.			

### Phase 1

**Table 4.7-8, p. 4.7-41**, presents the consistency analysis of Phase 1 and the CAP's Development Review Checklist for new development. The proposed project would be consistent with nearly all of the Development Review Checklist's measures, except for a potential inconsistency with a measure related to exceeding CALGreen standards for water fixture flow rates and another measure related to capturing rainwater for irrigation (see **Table 4.7-8, p. 4.7-41**, for more details). Even with this potential inconsistency, Phase 1 is consistent with the CAP's Development Review Checklist as a

whole, given its consistency with all other measures. Therefore, this impact would be ***less than significant***.

**Table 4.7-8. Consistency Analysis of Phase 1 with CAP Development Review Checklist**

#	Measure	Consistent	Explanation
1	Does the project include bicycle facilities (e.g., bicycle lanes, parking, lockers)?	Yes	Class 2 bike lanes would be constructed on Southline Avenue. As part of the off-site improvements to circulation, a shared bicycle-pedestrian path would be constructed on the east side of Huntington Avenue and on the west side of Huntington Avenue from Southline Avenue to the BART stations. Short- and long-term bicycle parking would be installed with showers and lockers. Phase 1 also includes improvements to the Centennial Way Trail.
2	Will the project support bike sharing/rental programs?	Yes	The TDM Plan would offer subsidies for transit and micromobility for employee commute trips (such as bus, rail, ferry, bike-share, and scooter-share).
3	Will there be a commute shuttle or public transit stop on-site or within 500 feet?	Yes	The southwest boundary of the Phase 1 site is within 500 feet of the San Bruno BART station. The Phase 1 site is approximately 4,000 feet from the San Bruno Caltrain station, and approximately 6,000 feet from the South San Francisco Caltrain station. An onsite mobility hub would accommodate shuttle, ride share, and other passenger loading.
4	Is the project within ¼ mile of a Caltrain or BART stop?	Yes	See #3.
5	Will the project include high-density housing and a diverse range of housing?	N/A	Phase 1 would not include housing.
6	Will the project provide traffic calming treatments?	Yes	See #1. In addition, as part of the off-site improvements to circulation, new pedestrian/ADA-compliant ramps would be installed at the improved intersections. Bulb-outs and high-visibility crosswalks would be constructed at the BART station garage intersection. Construction of a cul-de-sac on Tanforan Avenue will also support traffic calming.
7	Is the project paying a traffic impact fee to fund bicycle and pedestrian improvements?	Yes	Phase 1 is required to pay a pedestrian and bicycle impact fee, per the City's Municipal Code (Chapter 8.68).
8	Will the project provide shared or reduced parking?	Yes	Onsite parking would be reduced by approximately 25 percent compared to the parking requirements for the existing Business and Professional Office zoning district.

#	Measure	Consistent	Explanation
9	Will the project provide designated parking spaces for electric vehicles, carpool vehicles, or other low-emissions vehicles?	Yes	Ten percent of onsite parking spaces (83 spaces) would be installed with electric vehicle charging infrastructure.
10	Will the project have any ground-level commercial space?	Yes	An amenities building (Building 2) would include publicly accessible ground floor dining/retail space.
11	Does the project include any alternative-fuel stations?	Yes	See #9.
12	Will the project have any pre-wiring or conduit constructions to easily add electric vehicle charging stations or alternative energy facilities at a later date?	Yes	See #9.
13	If this project is replacing an existing building, is the building being replaced more than 30 years old?	Yes	The existing uses include a variety of office, industrial, warehouse, and storage facilities that were largely constructed in the 1940s and 1950s. All buildings would be demolished during Phase 1.
14	Will certification of the building be sought under LEED or other green building criteria?	Yes	All Phase 1 buildings would achieve a LEED version 4 Silver rating.
15	Will the project include any high-reflectivity ("cool") roof or surface paving?	Yes	Vehicle parking would be provided in below- and above-ground parking structures instead of surface parking, avoiding the heat island impacts associated with surface asphalt parking. The Specific Plan includes design guidelines to encourage use of light-colored or reflective roofing materials.
16	Will there be a net increase in the number of mature trees on-site once the project is completed?	Yes	Phase 1 would result in a net gain of 149 trees (which equals the 311 new trees to be planted minus the 162 existing trees to be removed).
17	Will any renewable energy system be installed as part of this project?	Yes	Phase 1 would not be required to install any on-site renewable energy systems. However, the Specific Plan would require the purchase of 100 percent carbon-free electricity for all operational electricity needs through participation in programs such as PG&E Solar Choice or Peninsula Clean Energy. This requirement would be applicable to Phase 1.
18	Is the project a new nonresidential conditioned space of 5,000 square feet or more?	Yes	Phase 1 includes multiple nonresidential conditioned spaces exceeding 5,000 square feet.

#	Measure	Consistent	Explanation
19	Will the project use renewable energy generated off-site?	Yes	See #17.
20	Will there be composting collection on-site?	Yes	As required by AB 1826, Phase 1 would include extensive recycling and composting facilities to divert organic materials away from landfills and incorporate dedicated space and waste collection infrastructure (i.e., for batteries, mercury-containing light fixtures, electronic waste).
21	Will any water fixtures exceed CALGreen standards?	Unknown	Phase 1 would comply with current 2019 CALGreen standards. Interior water fixtures would include high-efficiency toilets, urinals, showerheads, and lavatories, reducing indoor water use. Phase 1 does not specifically require water fixtures to exceed CALGreen standards, therefore it is unknown as to whether the project's water fixtures would exceed any CALGreen standards related to flow rate requirements for water fixture installations.
22	Will the project incorporate low-impact development (LID) practices?	Yes	Consistent with C.3 requirements in the MRP and the City of South San Francisco requirements, stormwater runoff from the Phase 1 site will be treated through LID methods, which may consist of bioretention basins, flow through planters, pervious permeable pavements, and other site design features intended to manage stormwater runoff flows from the Phase 1 site and to reduce stormwater pollution.
23	Will any xeriscaping be installed?	Yes	Native and drought-tolerant landscaping would reduce overall exterior water needs. Drip irrigation, rotary sprays, and other efficient methods for delivering water for landscaping would be incorporated, as would targeted hydro-zoning to address species-specific water needs. Weather-based irrigation controls would be incorporated to reduce potable water use when weather conditions allow. Selected tree species will be climate-appropriate to reduce water use and the need for fertilizer.
24	Will captured rainwater or graywater be used for irrigation?	No	Phase 1 would not include rainwater or graywater irrigation. While the City has an existing recycled water distribution system, it does not connect to the Phase 1 site, and there are no future plans for it to be expanded to the area.

Source: City of South San Francisco. 2014. *Climate Action Plan*. Available: <https://www.ssf.net/home/showpublisheddocument?id=5640>. Accessed: February 3, 2021.

## 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 low-carbon fuel standard, 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, including Phase 1, would be

required to comply with these regulations in new construction (in the case of updated Title 24 standards) or be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive because of statewide compliance with future low-carbon fuel standard amendments and increasingly stringent RPS). Therefore, for the foreseeable future, the Specific Plan would not conflict with any other state-level regulations pertaining to GHGs in the post-2020 era. This impact would be less than significant.

Implementation of **Mitigation Measure GHG-1**, discussed above under Impact GHG-1, would reduce the project, including Phase 1, impact related to consistency with GHG plans to a less-than-significant level. This impact would be *less than significant with mitigation*.

#### 4.7.4.4 Cumulative Impacts

Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (e.g., ozone precursors), which are primarily pollutants of regional and local concern. Given the long atmospheric lifetimes, GHGs emitted by 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. Therefore, GHG emissions impacts are inherently cumulative. The analysis above is inclusive of cumulative impacts.

## 4.8 Hazards and Hazardous Materials

### 4.8.1 Introduction

This section evaluates the potential impacts related to construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the proposed project (Phase 1), on hazards and hazardous materials. This section also describes the existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes multiple hazardous materials technical reports prepared for properties within the Specific Plan area, including Phase I and Phase II Environmental Site Assessments (ESAs) (**Appendix 4.8-1**). Although the subject properties of the hazardous materials technical reports do not include the off-site improvement areas, the environmental database searches conducted for the Phase I ESAs, which generally cover a one-mile radius from the subject site, included the off-site improvement areas. Therefore, this analysis assumes that conditions, impacts, and recommendations identified for the Specific Plan area also generally apply to the off-site improvement areas, with exceptions for site specific conditions described in this section.

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. The NOP comments pertaining to hazards and hazardous materials include the proper handling of hazardous materials. This issue is addressed below in Section 4.8.4, *Impacts and Mitigation Measures*.

### 4.8.2 Environmental Setting

This section provides a discussion of the existing conditions related to hazards and hazardous materials on the project site.

#### 4.8.2.1 Regional Setting

The City of South San Francisco is largely composed of single-use areas, with industry in the eastern and southeastern portions of the City and single-family homes to the north and west. Much of the City is urbanized, with little vacant land. Land uses surrounding the project site include commercial, industrial, and warehouse facilities, located to the north and east; residential uses to the south; and the San Bruno Bay Area Rapid Transit (BART) station and The Shops at Tanforan and San Bruno Towne Center to the west.

#### 4.8.2.2 Project Site

The project site comprises the Specific Plan area and the off-site improvement areas. Existing uses within the Specific Plan area, which encompasses seven parcels, include a variety of occupied and unoccupied office, industrial, warehouse, and storage facilities that were largely constructed in the 1940s and 1950s. Six of the parcels contain 15 buildings and/or structures, 11 of which were

constructed more than 45 years ago. The seventh parcel is a vacant right-of-way that formerly contained an SPRR spur. The existing structures within the Specific Plan area total nearly 344,000 square feet and include approximately 380 surface parking spaces. Surface parking lots and storage areas are interspersed among the buildings. The off-site improvement areas consist of rights-of-way and easements developed with roadway, sidewalk, and utility improvements in the Cities of South San Francisco and San Bruno. The off-site improvement areas do not include any developed land uses. The topography of the project site and surrounding area is relatively flat, with a slight slope toward the northeast.

## Specific Plan Area

### Hazardous Materials Identified in Previous Environmental Investigations

The Specific Plan area has a history of contamination related to its use over the years for various industrial, warehouse, and storage facilities uses; a series of recent environmental investigations have been conducted to evaluate the subsurface conditions within the Specific Plan area. Multiple reports were prepared between 2017 and 2020 for various locations within the Specific Plan area, including the Phase 1 site. The technical reports, included in **Appendix 4.8-1** of this EIR, are listed below and grouped by address (an asterisk indicates that the address falls within the Phase 1 site).

- 240 Dollar Avenue\*
  - Phase I ESA of Mini Warehouses, 240 Dollar Avenue, ATC Group Services LLC, 2018.
  - Limited Phase II ESA Report, 240 Dollar Avenue, ATC Group Services LLC, 2018.
- 240 Dollar Avenue and 180 South Linden Avenue\*
  - Pre-Renovation Hazardous Materials Survey, 240 Dollar Avenue and 180 South Linden Avenue, ATC Group Services LLC, 2018.
- 160 South Linden Avenue\*
  - Phase I ESA, Compass Transportation, 160 South Linden Avenue, ATC Group Services LLC, 2018
  - Pre-Renovation Hazardous Materials Survey, Multi-Tenant 3-Story Building, Maintenance Building, and Bus Wash, 160 South Linden Avenue, ATC Group Services LLC, 2018
- 54 Tanforan Avenue\*
  - Supplemental Site Assessment Report, 54 Tanforan Avenue, ATC Group Services LLC, 2020.
- 50 Tanforan Avenue\*
  - Phase I ESA of Mainfreight, 50 Tanforan Avenue, ATC Group Services LLC, 2018.
  - Limited Phase II ESA Report, 50 Tanforan Avenue, ATC Group Services LLC, 2018.
  - Pre-Renovation Polychlorinated Biphenyl (PCB) Survey, 2018.
- 30, 40, 46 Tanforan Avenue and 335, 347, 349 South Maple Avenue\*
  - Phase I ESA of Malaspina Property, 30, 40, 46 Tanforan Ave & 335, 347, 349 S. Maple Avenue, ATC Group Services LLC, 2017.

- 30 and 40 Tanforan Avenue\*
  - Pre-Renovation Hazardous Materials Survey, 30 & 40 Tanforan Avenue, ATC Group Services LLC, 2017.
- 325 South Maple Avenue
  - Phase I ESA of 325 Maple Avenue and 325 South Maple Avenue, ATC Group Services LLC, 2019. In addition to 325 South Maple Avenue, the Phase I ESA also includes the properties at 315 and 319 South Maple Avenue.
  - Former Sludge Pond Soil Sampling Report, 325 South Maple Avenue, ATC Group Services LLC, 2019. This report is not summarized below as its conclusions were taken into consideration in the Phase I ESA's findings.

The following section summarizes the objectives, findings, and recommendations as presented in each report. The following defined terms are used in the summary below:

- *Recognized environmental conditions* (RECs): The American Society for Testing and Materials (ASTM) defines recognized environmental conditions as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.
  - *Historical recognized environmental condition* (HREC) - a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a HREC, the environmental professional (EP) must determine whether the past release is a REC at the time the assessment is conducted (for example, if there has been a change in the regulatory criteria).
  - *Controlled recognized environmental condition* (CREC) - a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (property use restrictions, activity and use limitation, institutional controls, or engineering controls).
- *Business environmental risks*: refers to a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated per the ASTM standard.
- *De minimis conditions*: is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies.

RECs, CRECs or HRECs were identified for 240 Dollar Avenue, 50 Tanforan Avenue, the Malaspina Property and 325 Maple Avenue sites. The specific findings and conclusions, along with any recommendations are detailed below.

**240 Dollar Avenue**2018 Phase I ESA of Mini Warehouses, 240 Dollar Avenue

ATC Group Services LLC (ATC) performed a Phase I ESA of the property at 240 Dollar Avenue. The objective of the Phase I ESA was to identify RECs in connection with the property.

*Findings*

One REC was identified associated with the property:

- Trench drains were identified in the property's maintenance building. The discharge location of the drains was unknown and based on the historical use of the property (automotive repair), the unknown discharge point was considered a REC.

Several *business environmental risks* were also identified:

- DuPont manufacturing operated on-site until at least the late 1980s when the property operations changed. At the time of the operations change, soil samples were collected in representative areas throughout the property. The soil samples did not identify evidence of constituents of concern or COCs (COCs are defined as specific chemicals that are identified for evaluation in the site assessment process) on-site above laboratory detection limits and/or regulatory action levels for commercial/industrial land use. However, no groundwater samples were collected. The absence of groundwater samples given the historical industrial and maintenance activities at the property were identified as a *business environmental risk* as groundwater was not characterized.
- An adjoining site (to the north) associated with 160 South Linden Avenue, historically operated one 4,000-gallon thinner underground storage tank (UST), which was reportedly removed in 1985. A prior investigation not related to the proposed project (and identified in the Phase I ESA) conducted in the vicinity of the former UST identified petroleum constituents in groundwater 25 feet from the 240 Dollar Avenue site. Benzene and naphthalene in groundwater were reported in excess of the commercial exposure scenario vapor intrusion carcinogenic risk according to the OSWER Vapor Intrusion Assessment Groundwater Concentration to Indoor Air Concentration (GWC-IAC), June 2017 Regional Screening Levels (RSLs) or the Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for indoor air impact in a commercial/industrial land use. The potential for vapor migration was considered a *business environmental risk* based on the use of the property at the time as warehouse storage space.
- Due to construction date of on-site buildings (1930s and 1950s), Asbestos Containing Materials and Lead-Based Paint may be present.

The following *de minimis* conditions were also identified:

- Oil staining was observed in a maintenance building and in the parking area around stored vehicles and discarded vehicle engines.
- An open pipe or drain was observed outside the warehouse building. The feature appeared to be steel with no cover. Oil staining was observed on the concrete next to as well as inside the observed feature. Absorbent material had been placed on a portion of the stained area.

**2018 Limited Phase II ESA Report, 240 Dollar Avenue**

ATC performed a Phase II ESA on the property at 240 Dollar Avenue. ATC advanced five soil borings on May 3 and 4, 2018, three of which were used for groundwater sampling. Soil samples were collected at depths of 5, 10, and 15 feet below ground surface (bgs). Groundwater samples were taken at a depth ranging from approximately 12 to 14 feet bgs. The Phase II ESA investigation was conducted to supplement prior site characterizations conducted in October 2017 and March of 2018. All three sampling events were conducted to assess potential environmental concerns associated with historical (paint manufacturing) and current (bus maintenance) activities at the property. The following results were observed:

***Soil***

- No gasoline or VOCs were reported above Environmental Screening Levels (ESLs).
- Arsenic ranged in concentrations of 1.8 milligrams per kilogram (mg/kg) to 19 mg/kg, which are considered within normal background levels.
- Chromium ranged from 32 to 54 mg/kg in the soil samples analyzed, which is within normal background levels for this area.

According to the Phase II ESA, soil sample results indicated that soil in the areas assessed did not represent an environmental risk.

***Groundwater***

- No gasoline was reported above ESLs.
- Naphthalene was reported in the four groundwater samples in concentrations ranging from 2.0 to 2.1 micrograms per liter (µg/L), which were below the ESLs for Groundwater Vapor Intrusion Human Health Risk Levels for Shallow Groundwater at Commercial Sites (170 µg/L).
- Metals in groundwater were reported above the ESL for Direct Exposure Maximum Contaminant Level (MCL) Priority (Drinking Water); however, groundwater samples were unfiltered and deemed as not appropriate for comparison to MCL-based ESLs.

According to the Phase II ESA, concentrations of metals and naphthalene detected in groundwater are unlikely to materially impact the future use or development of the property as shallow groundwater is unlikely to be used as source of drinking water and naphthalene was not detected in concentrations indicating the source was on-site. In addition, sampling results indicated an absence of historical petroleum-related releases into groundwater at the property.

The Phase II ESA recommendation included further delineation of trench drain lines to verify where historical waste liquid may have discharged, as was also identified as a REC during the Phase I ESA. summarized above.

***240 Dollar Avenue and 180 South Linden Avenue*****2018 Pre-Renovation Hazardous Materials Survey, 240 Dollar Avenue and 180 South Linden Avenue**

ATC performed a pre-renovation hazardous materials survey of the buildings located at 240 Dollar Avenue and 180 South Linden Avenue on August 29, 2018. The purpose of the survey was to determine the presence of asbestos-containing materials (ACMs), asbestos-containing construction materials (ACCMs), lead-based paint (LBP), lead-containing paint (LCP), and PCBs within on-site

buildings. Materials containing asbestos and lead-containing materials were identified in buildings located at both 240 Dollar Avenue and 180 South Linden Avenue.

The survey recommended removal of ACMs and ACCMs to be disturbed prior to any demolition activities. In addition, the removal and/or stabilization of building materials containing LBP would also be required prior to demolition.

### **160 South Linden Avenue**

#### 2018 Phase I ESA of Compass Transportation, 160 South Linden Avenue

ATC performed a Phase I ESA of the property at 160 South Linden Avenue.

#### *Findings*

One *controlled* REC was identified associated with the property:

- The 160 South Linden Avenue site has a history of contaminated soil and groundwater due to historic land uses associated with a DuPont paint manufacturing plant (on-site from 1934 to 1982). According to the Phase I ESA, a San Mateo County Groundwater Protection Program Case Closure Memorandum dated December 21, 2010 stated that the extent of hydrocarbon-impacted groundwater had been adequately defined, and although residual concentrations exceeded drinking water ESLs, no exposure pathway to human or environmental receptors existed. A commercial deed restriction<sup>1</sup> was recorded for the 160 South Linden Avenue site at the time. The Phase I ESA suggested that dissolved-phase plume is decreasing with time, and residual concentrations should reach drinking water screening levels within a reasonable amount of time. On September 6, 2011, San Mateo County Environmental Health issued a no further action letter (NFA) relating to the petroleum releases at the 160 South Linden Avenue site. Due to the risk-based closure for soil and groundwater and the implementation of deed restrictions at the site, the Phase I ESA determined this to be a controlled REC. The 160 South Linden Avenue site was identified as part of the Department of Toxic Substances Control (DTSC)'s Cleanup Sites database and thus is considered a Cortese List site. Cortese List sites are discussed in more detail below.

The Phase I ESA identified several *business environmental risks*:

- In 2007, a groundwater sampling event indicated constituent levels exceeded RWQCB ESLs for groundwater at several sample locations on-site and the adjacent property at 150 South Linden Avenue; however, none of the groundwater sample results exceeded the Site-Specific Target Levels (SSTL) developed for the DuPont facility or the RWQCB ESLs for indoor air impacts for commercial/industrial land uses. The Vapor Encroachment Concern (VEC) associated with the aforementioned constituents in groundwater were considered a *business environmental risk*.
- Four violations were issued to the site during an April 2018 pursuant to San Mateo County Environmental Health Services inspection: open 55-gallon containers of oil and oil filters; failure to maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents (used oil dripping around the used oil tank and poor maintenance practices); evidence of a spill

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<sup>1</sup> Development of the property was restricted to industrial and commercial land use. In addition, no uses or development of the property that would disturb soil were to be permitted without a Soil Management Plan and Health and Safety Plan submitted to the San Mateo County Environmental Health prior to disturbance.

or leak from a used oil tank; and failure to properly label hazardous materials. San Mateo County Environmental Health Services required that these conditions be addressed by May 2018. However, observations made during the preparation of the Phase I ESA indicated that the violations had not been resolved; the Phase 1 ESA concluded that these conditions were considered a *business environmental risk* as they were still outstanding at the time.

- Due to the construction date of the on-site buildings (1934), ACMs and LBP may be present.

The following *de minimis* conditions were also identified:

- Several aboveground storage tanks (ASTs) were identified within a maintenance building and contained used oil, coolant, and automatic transmission fluid. Staining was observed on and around the ASTs. No drains were present in the vicinity of the ASTs and the concrete was observed in good condition, with no evidence of cracks or deterioration.
- ATC observed diesel-staining within the secondary containment area of a 13,000-gallon AST fueling dispenser, on the concrete next to the dispenser, on a secondary containment pallet, and on a 55-gallon drum. The concrete around the dispenser island and the presence of steel secondary containment were in good condition.
- Petroleum staining was observed on and around the containers (drums of varying capacity) of used product (oil, coolant, etc.) in the maintenance building. The containers were not stored in secondary containment. Oil staining and spills were observed on the concrete throughout the interior of the maintenance building and within a service pit. Oil staining was also observed on and around the air compressors in the maintenance building's exterior. Based on the good condition of the concrete and the absence of drains or exposure pathways, oil staining described was considered a *de minimis* condition.
- Discarded miscellaneous materials were observed on exposed soil next to on-site dumpsters. Oil-stained soil (approximately 10 square feet) was observed on the ground surface in this area.

2018 Pre-Renovation Hazardous Materials Survey, Multi-Tenant 3-Story Building, Maintenance Building, & Bus Wash, 160 South Linden Avenue

ATC performed a pre-renovation hazardous materials survey of the buildings located at 160 South Linden Avenue on August 29, 2018. The purpose of the survey was to determine the presence of ACMs, ACCMs, LBP, LCP, and PCBs within the on-site buildings. Materials containing asbestos and lead-containing materials were identified in buildings located at 160 South Linden Avenue.

Asbestos, lead-containing, and Excluded PCB Product materials were identified during the hazardous materials survey. ATC recommended removal of ACMs and ACCMs to be disturbed prior to any demolition activities. Removal and/or stabilization of building materials containing LBP would also be required prior to demolition. For Excluded PCB Product materials, ATC recommended removal prior to any demolition activities. In addition, ATC recommended that bulk samples be collected to further characterize PCB content of window caulk.

**54 Tanforan Avenue**

2020 Supplemental Site Assessment Report, 54 Tanforan Avenue

The Supplemental Site Assessment was conducted by ATC in January 2020 in response to a letter dated January 7, 2020 from the San Mateo County Groundwater Protection Program (SMCGPP)

regarding a prior Supplemental Site Assessment Report, dated September 17, 2019. In the letter, SMCGPP requested the following:

- The vertical extent of lead in soil at specific locations (at historical soil boring locations HA3, HA11 and HA12) should be defined.
- Groundwater samples should be collected adjacent to historical soil borings B3, B4, and B5 to define the lateral extent of dissolved metals in groundwater.

#### *Prior Site Assessments Summarized*

During prior site assessments (conducted in 2010, 2018 and 2019), petroleum hydrocarbons within the diesel range, and select heavy metals in soil were detected at concentrations in excess of Commercial and/or Construction Worker ESLs in a former railroad spurs area and former northern aboveground oil storage area. Foundry-related waste materials were also identified in these areas. Groundwater in the vicinity of a former aboveground oil storage area and the northern portion of a former foundry building indicated petroleum hydrocarbons in excess of the Drinking Water ESL predominantly within the diesel to oil range. Carbon tetrachloride was the only VOC detected in groundwater at concentrations in excess of Groundwater vapor intrusion ESLs.

#### *2020 Supplemental Site Assessment*

As mentioned, the objective of this site assessment was to confirm the vertical extent of lead in soil and to define lateral extent of dissolved metals in groundwater. Thirteen soil samples were collected and analyzed for lead. Lead was detected at concentrations equal to or exceeding the laboratory method detection limit (MDL) in each of the soil samples at concentrations ranging from 2.07 mg/kg (B14-12) to 9.37 mg/kg (B13-5.5). All of the lead concentrations were below the Commercial/Industrial ESL (320 mg/kg) and Construction Worker ESL (160 mg/kg). Based on these results, ATC concluded that the vertical extent of site-wide lead impacted soil at concentrations in excess of the Commercial/Industrial and Construction Worker ESL as well as lead characterized as California hazardous waste is most likely limited to a depth of less than 5 feet bgs.

Three groundwater samples were also collected and analyzed for metals. Cobalt was detected in one sample at a concentration of 9.68 µg/L and in another at a concentration of 7.79, exceeding the Drinking Water ESL (6.0 µg/L). The detected concentration of cobalt in groundwater was flagged as a J-value by the laboratory. A J-value indicates a result that is less than the laboratory reporting limit but greater than the MDL, thus, the reported concentration is considered an estimated value. No other constituents detected in the groundwater samples indicated concentrations equal to or exceeding applicable drinking water ESLs. ATC concluded that the presence of cobalt in groundwater is not considered to materially impact potential beneficial groundwater uses as shallow groundwater is not used as a drinking water source. The lateral extent of site-wide dissolved metals in groundwater was determined to be adequately defined.

#### ***50 Tanforan Avenue***

##### *2018 Phase I ESA of Mainfreight, 50 Tanforan Avenue*

ATC performed a Phase I ESA of the property at 50 Tanforan Avenue.

### *Findings*

One REC was identified associated with the site:

- Review of the historical documents indicated that the property has been utilized for industrial operations since the 1940s. Prior on-site use consisted of a bunk house, private garages, and an oil house associated with the northern adjoining industrial facility. The property was redeveloped with the existing industrial building in 1959. A potential previously unidentified release from historical activities in 1963 was identified to the east of the on-site building during preparation of the Phase I ESA. The potential subsurface impacts associated with long-term industrial operations and the potential release identified in 1963 were considered a REC.

One *historical* REC was identified associated with the property:

- A review of the regulatory records indicated one 10,000-gallon diesel UST was formerly located on the east side of the property building. The UST was registered in 1988 and was removed in 1994. Petroleum-containing soil and groundwater were identified during subsequent sampling events. Remediation activities included the removal of approximately 250 cubic yards of diesel-containing soil and approximately 1,300-gallons of groundwater from the property. A letter was reportedly issued from the County on October 10, 1995, stating soil had been remediated to the satisfaction of the county; however, groundwater monitoring was still required. By the fifth quarter of groundwater sampling, no significant concentrations of hydrocarbon compounds were reported and closure was requested. Case closure was granted by the San Mateo County Department of Health Services pending the abandonment of the on-site monitoring wells in a letter dated November 5, 1996. Due to regulatory closure, the former UST and associated release were considered a historical REC. As the site was listed in the LUST database, it is also considered a Cortese List site. Cortese List sites are described in more detail below.

#### 2018 Limited Phase II ESA Report, 50 Tanforan Avenue

ATC performed a Phase II ESA on the property at 50 Tanforan Avenue. The objective of the Phase II ESA was to characterize subsurface conditions at the 50 Tanforan Avenue site. ATC advanced six soil borings on August 2 and 3, 2018, all of which were used for groundwater sampling. Soil samples were collected at depths of 5, 10, and 15 feet bgs. Groundwater samples were taken at a depth ranging from approximately 8 to 10 feet bgs. The following results were observed:

#### *Soil*

- No gasoline, diesel, oil or VOCs were reported above ESLs.
- Arsenic ranged in concentrations of 2.5 mg/kg to 9.2 mg/kg, which are considered within normal background levels.
- Chromium ranged from 7.5 to 69 mg/kg in the soil samples analyzed, which is within normal background levels for this area.

- Lead was reported above the ESLs for Soil Exposure/Construction Worker (86 mg/kg) at 170 mg/kg and 140 mg/kg in two different samples. However, both samples were below the Toxicity Characteristic Leaching Procedure (TCLP)<sup>2</sup> threshold of 5 mg/L.
- Concentrations of nickel samples ranged from 4 mg/kg to 59 mg/kg with one outlier sample detected at 170 mg/kg and above the ESLs for Soil Exposure/Construction Worker (160 mg/kg).

According to the Phase II ESA, soil sample results indicated that soil in the areas assessed did not represent an environmental risk.

#### *Groundwater*

- Two groundwater samples contained diesel range organics above ESLs (at 150 and 270 µg/L, respectively).
- Arsenic was reported at concentrations ranging from 17 to 21 µg/L, and thallium was reported at concentrations ranging from 25 to 28 µg/L. Both metals were reported above the ESL for Direct Exposure MCL Priority (Drinking Water) for arsenic (10 µg/L) and for thallium (2 µg/L).

According to the Phase II ESA, arsenic and thallium were reported in groundwater at similar concentrations at neighboring sites (54 Tanforan Avenue and 240 Dollar Avenue) and appear to represent background levels in ground water.

The Phase II ESA recommended that a soil management plan be prepared prior to initiating for future site development activities. The soil management plan should document specific dust mitigation, soil management, and waste characterization activities for excess soil generated during site development.

#### 2018 Pre-Renovation PCB Survey, Mainfreight, 50 Tanforan Avenue

ATC performed a pre-renovation PCB survey of the buildings located at 50 Tanforan Avenue on August 29, 2018. The purpose of the survey was to determine the presence of polychlorinated biphenyls within on-site buildings. PCB analytical results indicated that none of the sampled materials contained greater than the detection limit of PCBs and therefore, were not above the remediation or hazardous waste thresholds.

#### **30, 40, 46 Tanforan Avenue & 335, 347, 349 S. Maple Avenue**

#### *2017 Phase I ESA of Malaspina Property, 30, 40, 46 Tanforan Ave & 335,<sup>3</sup> 347, 349 S. Maple Avenue*

ATC performed a Phase I ESA of the Malaspina site in April of 2017. The Malaspina site is shown in **Figure 3.8-1, p. 4.8-11**. In addition, ATC conducted a limited screening for potential VECs. One REC and one VEC were identified and are described below.

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<sup>2</sup> According to the EPA, the TCLP is an analytical procedure designed to determine the mobility of both organic and inorganic analytes present in liquid, solid, and multiphasic wastes.

<sup>3</sup> 335 S. Maple Avenue has since been demolished and is no longer present on the project site.



## Findings

One REC was identified associated with the Malaspina site:

- An open leaking underground storage tank (LUST) and open Non-LUST spill case (SLIC) were identified for the property (as the site was listed in the LUST database, it is also considered a Cortese List site. Cortese List sites are described in more detail below). The LUST listing relates to the presence of hydrocarbon affected soil observed in the vicinity of the former 500-gallon UST that was removed from the northwestern portion of the property in November 2014. The SLIC case relates to the detected presence of heavy metals in soil and groundwater that appear to be associated with the historic presence of rail spurs and sidings on the property. Soil sampling performed in the vicinity of the former UST indicated the presence of petroleum hydrocarbons and VOCs at concentrations in excess of San Francisco Regional Water Quality Control Board (SFRWQCB) ESLs. Groundwater samples obtained in the northeastern and southwestern portions of the property also contained petroleum hydrocarbons, VOCs, and metals at concentrations in excess of SFRWQCB ESLs. Shallow soil containing elevated concentrations of petroleum hydrocarbons, arsenic and/or lead was also identified in the vicinity of two former rail spurs running through the central portion of the property and along the eastern property boundary. Regulatory oversight of the UST and SLIC cases is provided by the San Mateo County Health Department under the Voluntary Cleanup Program. Remedial excavation in the vicinity of the former UST was performed. However, a report detailing the results of the remedial excavation activities had not been completed (as of the date of preparation of the Phase I ESA). The documented presence of petroleum hydrocarbons, VOCs, and metals in soil and/or groundwater was identified as a recognized environmental condition. The Phase I ESA stated that additional assessment of potential groundwater impacts associated with documented site releases could be necessary.

One VEC was identified associated with the site:

- Subsurface soil and groundwater had been impacted by a release of gasoline from a UST that was located on the northern portion of the site. Remedial excavation had occurred, however, the extent of residual soil and/or groundwater impacts had not yet been fully assessed and the LUST case remained open. The documented release from the former UST was considered to represent a VEC until definitive documentation is available to conclude that post-remediation concentrations of VOCs in soil and groundwater do not represent a VEC.

### *2017 Case Closure and Residual Contaminants Letters, Malaspina Property, 30 Tanforan Avenue<sup>4</sup>*

A review of the State Water Resources Control Board's GeoTracker website in July of 2021 identified the aforementioned LUST case as closed (December 2017). A *Case Closure* letter from the County of San Mateo Health System dated December 4, 2017 confirmed the completion of necessary site investigations and corrective action associated with the UST release.

A subsequent *Residual Contaminants* letter from the County of San Mateo Health System, also dated December 4, 2017, states that although site closure was granted, residual metals and fuel-affected soil and groundwater may exist at onsite locations. Based on analytical information, the contaminants did not appear to pose a risk under existing land use conditions, however, changes in

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<sup>4</sup> The *Case Closure* and *Residual Contaminants* letters referenced also include the properties at 29, 40 and 46 Tanforan Avenue and 335, 347 and 349 South Maple Avenue, the same footprint analyzed as part of the 2017 *Phase I ESA of Malaspina Property, 30, 40, 46 Tanforan Ave & 335, 347, 349 S. Maple Avenue*.

land use or removal of soil and groundwater could create a contaminant exposure risk. Consequently, any proposed change in land use or proposed soil or groundwater removal activity at or in close proximity to the subject site must be submitted to the San Mateo County Environmental Health Department Groundwater Protection Program (GPP) for review under Government Code section 65850.2.

As the Malaspina site has been granted a case closure status related to the UST release, the REC and VECs mentioned above are no longer considered significant risks. Notwithstanding, any proposed change in land use or soil and groundwater disturbance at or in close proximity to the Malaspina site would be evaluated by the San Mateo County Environmental Health Department GPP as required.

### ***30 and 40 Tanforan Avenue***

#### ***2017 Pre-Renovation Hazardous Materials Survey, 30 & 40 Tanforan Avenue***

ATC performed a pre-renovation hazardous materials survey of the buildings located at 30 & 40 Tanforan Avenue on May 18, 22 and 27, 2017. The purpose of the survey was to determine the presence of ACMs, ACCM, LBP and PCB containing materials within on-site buildings. ACM materials and ACCM were identified within building materials during the survey. Also, materials sampled during the pre-renovation hazardous materials survey and analyzed had detectable amounts of lead. None of the sampled materials are considered to be PCB-contaminated.

### ***325 South Maple Avenue***

#### ***2019 Phase I ESA of 325 South Maple Avenue***

ATC performed a Phase I ESA of the property at 325 South Maple Avenue.

#### ***Findings***

Three RECs were identified associated with the site:

- **Known Chromium in Soil:** A tanning business operated on the property from approximately 1942 to 1985. The company manufactured products for upholstery, in addition to lightweight leathers, utilizing steer hides tanned by a chrome process. Prior to 1954, all aqueous wastes associated with the tannery processes were discharged through a storm drain. After 1954, tannery effluent (e.g., wastes associated with cleaning, trimming, and removal of hair and flesh) was discharged into the sanitary sewer, while remaining tannery effluent, including chrome tan, tannin re-tanning wastes, and dye material, continued to be discharged via the storm drain. The business maintained on-site sludge holding ponds and/or sludge drying beds as part of the waste treatment and/or disposal process. Although this case received regulatory closure in 1987, standards have since changed to require speciation and analysis of both total and hexavalent chromium, which was not conducted at that time. ATC conducted a recent subsurface investigation and the results identified the presence of chromium and hexavalent chromium in shallow subsurface soil. To establish a reasonable approximation of the general boundaries and extent of the chromium impact soil in the former sludge pond and handling areas, the sampling results from 1987 and the current investigation were extrapolated over the site. Based on this methodology, ATC concluded that it is unlikely past historical uses have adversely impacted the groundwater beneath the property to any significant degree due to the results of subsurface investigation. However, the release of chromium to soil from on-site disposal ponds/drying beds remains a recognized environmental condition.

- **Former On-site Chemical Storage:** Records indicated that some areas along the southeastern side of 325 South Maple Street building were utilized for chemical and water storage. Two tanks, formerly located immediately east of the northeastern corner of the building, were identified as "tanning liquor tanks." Similarly, a site plan dated 1950 depicted a tank labeled "acid tank" in the same general area. Tanneries typically utilized acid and salt solutions as part of the chromium (III) sulfate process during preparation of the hides and to make wastewater suitable for sewage disposal. Documents also showed two sewage disposal areas immediately north of this building. In addition, records depicted a large-scale wastewater treatment area with timber-lined sumps, a settling tank, a water reservoir and a sludge lagoon.

Typically, tanneries using chromium sulfate during this time were not known to utilize solvents in significant quantities. In addition, there are no known releases associated with these features, and any significant release would have been discovered in groundwater at downgradient properties, which has not occurred. However, based on the lack of information regarding the specific chemical use at the tannery, large scale wastewater treatment associated with the tannery, and the length of time that this business was in operation (1942 to 1985), the historical use of the property as a tannery along with associated chemical storage and use is considered to represent a recognized environmental condition.

- **Adjoining Facility with PCE in Groundwater:** Maryatt Industries, which formerly operated at 290 South Maple Avenue (immediately west-northwest), was a linen supply company, that conducted dry cleaning activities. This facility was initially developed in 1958. Dry cleaning, which included the use of tetrachloroethene (PCE) solvents, was conducted at this location from 1958 until 1993 when the facility switched to water-based cleaning products. Wastewater associated with dry cleaning operations was discharged to a solids settling tank on the northeast side of the facility prior to being discharged to the sanitary sewer system. An investigation conducted in 2003 identified concentrations of PCE and its breakdown products in soil, groundwater, and soil vapor in excess of the RWQCB ESLs. A solvent release was also noted at the 416 Browning way facility, located adjacent to and west of the 325 South Maple Avenue site; this release had commingled with the release at 290 South Maple Avenue. 416 Browning is located approximately 260 feet to the northwest of the 325 South Maple Avenue site. Groundwater monitoring at this facility has indicated that groundwater flow, measured to the north-northwest and to the northeast, is less than 10 feet bgs.

Investigations conducted on the property indicated VOCs were present beneath the northeast side of the building and the west side of the site. The investigations did not include sampling along South Maple Avenue. The closest boring to the site, which was advanced in the vicinity of a storm drain located on the south side of the facility, and approximately 85 feet to the northwest of the property. The following constituents of concern were reported: total petroleum hydrocarbons as gasoline (TPHg) at 770 ug/L, TCE at 70 ug/L, 1,2-DCE at 1,100 ug/L, PCE at 520 ug/L, and vinyl chloride at 880 ug/L. These elevated concentrations were noted to be upgradient of the source areas and were determined to be associated with an off-site VOC release in the vicinity of 416 Browning Way. It was not clear if the release was from an off-site source or a separate release area within the site. According to the Phase I ESA, the aforementioned impacts are currently being addressed under the oversight of the RWQCB, and therefore it is anticipated that over time these impacts will be remediated. Subsurface impacts associated with release(s) of PCE to soil and groundwater were identified as a recognized environmental condition in the Phase I ESA.

Concentrations reported in groundwater exceeded the residential and commercial exposure scenario for vapor intrusion within the critical distance of the site. Thus, a VEC exists at the property that is considered a recognized environmental condition.

Several *business environmental risks* were also identified:

- According to Bay Area Air Quality Management District (BAAQMD) records, a former tenant, AccuFleet International/AccuFleet Inc./AccuFleet (325 South Maple Avenue, Unit 20) received a permit to install dry cleaning equipment, dated January 24, 1996; however, the facility status is listed as "shut down" as of 2002. At the time of the preparation of the Phase I ESA, AccuFleet was operational, but was not present at the subject property. According to information obtained during on-site interviews, the site contained a commercial washing operation for the airline industry. AccuFleet was also listed in the EDR Hist Cleaner and Emissions Inventory Data (EMI) databases. Between 1997 and 2001, AccuFleet is listed in the air permitting database as emitting one pound of organic hydrocarbon in 1997 and one pound in 1998. No emissions were noted in 1999 to 2001. This data could be an indication that the facility utilized petroleum hydrocarbon based cleaner as opposed to halogenated solvent based cleaner. Due to the lack of direct evidence that the former tenant performed halogenated solvent based dry cleaning on the property, the low likelihood that dry cleaning was performed on the property represents a *business environmental risk*.
- Groundwater quality in the area may be degraded due to naturally occurring metals such as selenium, arsenic, as well as contiguous industrial usage of the surrounding area since the 1940s. Given the historical industrial use of the property and surrounding area, soil sampling and analysis might be warranted prior to off-site disposal or reuse of excess soil generated during future site development activities. In addition, urban fill utilized in this area may contain concentrations of metals, volatile organic compounds, semi-volatile compounds, or other constituents that may require consideration of specific measures for management, handling, and/or disposal if disturbed during site development activities. To the extent that future site development requires construction dewatering, groundwater sampling and/or treatment may be required to ensure compliance with applicable construction dewatering discharge permitting. The future handling of soils and/or groundwater during future construction was identified as a *business environmental risk*.
- Based on a review of historical records, a former railroad spur appears to have been previously present on-site. Railroad spurs are typically associated with creosote, pesticides, and heavy metals. While no visual evidence of impacts (i.e., stained soils or stressed vegetation) was observed during the preparation of the Phase I ESA, it is not known whether soil beneath the former railroad spurs has been impacted by chemicals or petroleum products from the historical use. The soil contained within the former railroad spur area is considered to represent a *business environmental risk*.
- According to records reviewed during the preparation of the Phase I ESA, the former tannery's process water was derived from three wells located on the subject property. The aforementioned wells appear to have been located within the northwestern portion of the property, near a concrete reservoir. Information regarding construction or dates of installation or abandonment were not found during the research for the ESA. The lack of records indicating that the wells were properly abandoned is considered to represent a *business environmental risk*.

- Based on the original construction date of the main building at 325 South Maple Avenue (1942), asbestos containing material may be present at the site. Suspect materials observed during the preparation of the Phase I ESA included roofing materials and wallboard assemblies. ACM is unlikely to be a concern for the two newer buildings, constructed in 1995 (315 South Maple Avenue) and 1996 (319 South Maple Avenue).
- A limited visual inspection of the site for suspect lead-containing paint (LCP) was conducted. Based on the date of construction of Building 325 (circa 1942), it is possible LCP may have been applied within the building. Interior painted surfaces were observed to be in fair to good condition. Based on the construction dates of 315 and 319 South Maple Avenue (circa 1995 and 1996), LCP is unlikely to have been applied within those buildings.

According to the Phase I ESA, the potential presence of hexavalent chromium, heavy metals, and volatile organic compounds in shallow soil associated with the aforementioned RECs and business environmental risks will likely be addressed via excavation, and thus, it is unlikely significant concentrations of these chemicals will remain after these activities. The Phase I ESA includes several recommendations regarding the environmental conditions of the site, including the following:

- Specific health and safety requirements and exposure controls to protect future construction workers should be considered.
- A Soil and Groundwater Management Plan describing specific health and safety requirements and exposure controls should be prepared in advance of any future site construction activities that would involve disturbance of shallow soil. Soil to be excavated would be subject to management and disposal in accordance with applicable standards and regulations. Waste profile soil sampling and analysis may be required by disposal facilities to fully document the waste classification and disposal requirements.
- Vapor intrusion mitigation should be designed and implemented for the proposed on-site buildings to protect against releases to groundwater from nearby sources.
- Should wells be located during redevelopment, they should be properly abandoned.
- All suspect ACM should be properly assessed prior to disturbance during building maintenance, construction, or demolition activities. Prior to demolition contractors should be made aware of the presence of LCP to provide protection for the workers and for disposal considerations.

### **Cortese List Sites**

CalEPA Cortese List Data Resources<sup>5</sup> were consulted to determine if any Cortese sites are located within the boundary of the project site. The Cortese List is described below in Section 4.8.3, *Regulatory Framework*. One address located within the Specific Plan area and the Phase 1 site was

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<sup>5</sup> The CalEPA *Cortese List Data Resources* (<https://calepa.ca.gov/SiteCleanup/CorteseList/>) provide information regarding the facilities or sites identified as meeting the “Cortese List” requirements and include:

- List of Hazardous Waste and Substances sites from DTSC’s EnviroStor database
- List of Leaking Underground Storage Tank Sites from the State Water Board’s GeoTracker database
- List of solid waste disposal sites identified by the Water Board with waste constituents above hazardous waste levels outside the waste management unit
- List of “active” Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the Water Board
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code

identified in the DTSC's Cleanup Sites database (via Department of Toxic Substances Control's EnviroStor website):

- **West Coast Automotive Service Center at 160 South Linden Avenue** - The property is listed as a corrective action site. According to EnviroStor, the site is listed as Inactive - Needs Evaluation as of March 30, 2011. The site is associated with a Du Pont paint manufacturing facility. A 2004 Abbreviated Preliminary Assessment Report stated that several investigations and remedial activities have been conducted on-site to address both soil and groundwater impacts. A commercial deed restriction was issued to the site and on in September 2011, San Mateo County Environmental Health issued a No Further Action (NFA) letter associated with the petroleum releases at the property. Additional environmental details associated with the site are discussed under *Previous Environmental Investigations* above.

Two locations within the Specific Plan area (and within the Phase 1 site boundary) were identified in the LUST database (via State Water Resources Control Database's GeoTracker website):

- **Malaspina Property at 30 Tanforan Avenue<sup>6</sup>** - The property is listed with gasoline impacts to undisclosed media. The site is listed as a Completed - Case Closed site (as of December of 2017). Cleanup agencies included the San Mateo Local Oversight Program (LOP) and the San Francisco Bay RWQCB. Additional environmental details associated with the site are discussed under *Previous Environmental Investigations* above. As previously discussed, any proposed change in land use or soil and groundwater disturbance at or in close proximity to the Malaspina site would be evaluated by the San Mateo County Environmental Health Department GPP as required.
- **EFL Transportation at 50 Tanforan Avenue** - The property is listed with diesel impacts to groundwater. The site is listed as a Completed - Case Closed site (as of 1996). Cleanup agencies included the San Mateo LOP and the San Francisco Bay RWQCB. Additional environmental details associated with the site are discussed under *Previous Environmental Investigations* above.

### Schools

CEQA establishes special requirements for certain projects near schools to ensure that potential health impacts resulting from exposure to hazardous materials, wastes, and substances will be carefully examined and disclosed in a negative declaration or EIR, and that the lead agency will consult with other agencies on these issues. There are no schools or childcare facilities located on or within 0.25 mile of the project site. The closest school is South San Francisco High School, located approximately 0.47 mile to the northwest of the northern Specific Plan area boundary. The nearest childcare facility is the Sweet Pea Daycare, located approximately 0.70 mile to the south of the Specific Plan area's southern boundary.

### Airports

Aviation safety hazards can result if projects are located near airports. San Francisco International Airport (SFO) is approximately 1.23 miles southeast of the project site. Oakland International Airport is the next closest airport, approximately 11 miles to the east, across San Francisco Bay.

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<sup>6</sup> The Malaspina Property at 30 Tanforan Avenue listed within the LUST database (on the Water Board's GeoTracker site) also includes 29, 40, and 46 Tanforan Avenue and 335 (now demolished), 347, and 349 South Maple Avenue. This is according to December 2017 County of San Mateo Health System Case Closure and Residual Contaminants letters.

## Wildfires

The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazard based on fuels, terrain, weather and other relevant factors (PRC 4201-4204 and Govt. Code 51175-89). According to the California Department of Forestry and Fire Protection (CAL FIRE) “FHSZ Viewer,”<sup>7</sup> the project site is not in a Very High Fire Hazard Severity Zone (VHFHSZ) or an area of high or moderate wildfire risk.

## Phase 1 Site

The Phase 1 site is comprised of approximately 16.9 acres and includes an 11.93-acre portion within the Specific Plan area and a 5.03 acre-portion within the off-site improvement areas (the majority of the off-site improvement areas). The Phase 1 site within the Specific Plan area includes approximately nine buildings on five parcels). The existing uses on the Phase 1 site include industrial and office uses within the Specific Plan area. The off-site improvement areas consist of rights-of-way and easements developed with roadway, sidewalk, and utility improvements in the Cities of South San Francisco and San Bruno.

## Hazardous Materials Identified in Previous Environmental Investigations

The discussions involving 240 Dollar Avenue; 160 and 180 South Linden Avenue; and 30/40, 46, 50, 54 Tanforan Avenue in the *Environmental Setting* description for the Specific Plan area above apply to the Phase 1 site, as these properties are located within the Phase 1 site boundary.

## Cortese List Sites

As discussed above in the *Environmental Setting* discussion for the project site, three Cortese sites were identified within the Phase 1 site.

## Schools

As discussed above in the *Environmental Setting* discussion for the project site, there are no schools within 0.25 mile of the Phase 1 site. The closest school is South San Francisco High School, approximately 0.64 mile northwest of the Phase 1 site boundary.

## Airports

As discussed above in the *Environmental Setting* discussion for the project site, SFO is approximately 1.23 miles southeast of the Phase 1 site. Oakland International Airport is the next closest airport, approximately 11 miles to the east, across San Francisco Bay.

## Wildfires

As discussed above in the *Environmental Setting* discussion for the project site, according to the CAL FIRE “FHSZ Viewer,”<sup>8</sup> the Phase 1 site is not in a VHFHSZ or an area of high or moderate wildfire risk.

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<sup>7</sup> <https://egis.fire.ca.gov/FHSZ/> Map can be found at: <https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Fire%20Hazard%20Severity%20Zones.pdf>

<sup>8</sup> <https://egis.fire.ca.gov/FHSZ/> Map can be found at: <https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Fire%20Hazard%20Severity%20Zones.pdf>

## **4.8.3 Regulatory Framework**

This section provides a summary of the hazards and hazardous materials plans and policies of federal, state, and local agencies that have policy and regulatory control over the project site.

### **4.8.3.1 Federal**

#### **Hazardous Waste Handling**

The federal Toxic Substances Control Act and the Resource Conservation and Recovery Act (RCRA) established a program to be administered by the U.S. Environmental Protection Agency (EPA) to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which specifically prohibits the use of certain techniques for the disposal of hazardous waste.

#### **Comprehensive Environmental Response, Compensation, and Liability Act**

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as “Superfund,” was enacted by Congress on December 11, 1980 and amended by the Superfund Amendments and Reauthorization Act on October 17, 1986. This law (42 USC 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enabled revision of the National Contingency Plan (NCP). The NCP (CFR Title 40, Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List.

#### **Occupational Safety and Health Administration**

The Occupational Safety and Health Act of 1970, administered by the Occupational Safety and Health Administration (OSHA), is intended to ensure the safety and health of American workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. OSHA establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in 29 CFR 1910.

#### **Toxic Substances Control Act**

The Toxic Substances Control Act of 1976 authorized the EPA to secure information on all new and existing chemical substances and control those substances with unreasonable risks related to public health and the environment.

#### **U.S. Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)**

The U.S. Department of Transportation regulations cover all aspects of hazardous materials packaging, handling, and transportation. Some of the topics covered include parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), 173

(Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance).

## **Aviation Hazards**

Federal Aviation Administration (FAA) Regulations (14 Code of Federal Regulations [CFR] 77) establish standards for what constitutes an obstruction to navigable airspace. Obstructions include any object if it is: (1) 500 feet above ground level; (2) 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of an airport; and (3) above a height within a terminal obstacle clearance area or en route obstacle clearance area. In addition, California Public Utilities Code section 21659 prohibits hazards near airports (as defined by 14 CFR 77) unless a permit allowing the construction is issued by the Caltrans Division of Aeronautics. FAA requires a developer to file a Notice of Proposed Construction (Form 7460) for any structure greater than 200 feet above ground level. The form requires a proposal for marking and lighting of wind turbines and towers. FAA determines if the proposed Project would create a hazard to navigable airspace and issues either a Determination of No Hazard or a Notice of Presumed Hazard.

### **4.8.3.2 State**

#### **California Environmental Protection Agency**

The California Environmental Protection Agency (CalEPA) was created in 1991. It unified California's environmental authority in a single cabinet-level agency and brought the California Air Resources Board, State Water Resources Control Board (State Water Board), Regional Water Quality Control Boards (RWQCBs), California Department of Resources Recycling and Recovery (CalRecycle), DTSC, Office of Environmental Health Hazard Assessment, and Department of Pesticide Regulation under one agency. These agencies were placed under the CalEPA "umbrella" for the protection of human health and the environment to ensure the coordinated deployment of state resources. Their mission is to restore, protect, and enhance the environment and ensure public health, environmental quality, and economic vitality.

#### **Department of Toxic Substances Control**

DTSC, a department of CalEPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

#### **Cortese List**

CalEPA maintains the Hazardous Wastes and Substances Site (Cortese) List, a planning document used by state and local agencies and developers to comply with CEQA requirements in providing information about the locations of hazardous materials release sites. Per Government Code section 65962.5, the Cortese List must be updated at least once annually. DTSC, the State Water Board, and CalRecycle contribute to the hazardous material release site listings.

## **Hazardous Waste Control Act (Section 25100 et seq.)**

DTSC is responsible for enforcing the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), a framework under which hazardous wastes are managed in California. The law provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA with regards to waste management system in California. It also provides for the designation of California-only hazardous waste and development of standards that are equal to or, in some cases, more stringent than federal requirements.

## **Unified Hazardous Waste and Hazardous Materials Management Regulatory Program**

In January 1996, Cal EPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9) The Unified Program is implemented at the local level. The Certified Unified Program Agency (CUPA) is the local agency that is responsible for the implementation of the Unified Program. The San Mateo County Department of Environmental Health (SMCDEH) is the designated CUPA for the project site.

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of hazardous materials programs, including the HazMat Business Plan Program, California Accidental Release Prevention Program, Underground Storage Tank Program, Aboveground Storage Tank Program, and Hazardous Waste Generator Program, and incident response.

## **California Code of Regulations, Title 8—Industrial Relations**

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (known as Cal/OSHA) and the federal OSHA are the agencies responsible for ensuring worker safety in the workplace. Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. These standards would apply to construction activities.

## **California Labor Code (Division 5, Parts 1, 6, 7, and 7.5)**

The California Labor Code is a collection of regulations for the workplace that ensure appropriate training on the use and handling of hazardous materials as well as the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5, ensures that employees who are in charge of handling hazardous materials are appropriately trained and informed with respect to the materials they handle. Division 5, Part 7, ensures that employees who work with volatile flammable liquids are outfitted with appropriate safety gear and clothing.

## **CUPA Hazardous Materials Release Response Plans and Inventory Program Business Plan**

State and Federal Community Right-to-Know laws were passed in 1986. These laws allow public access to information about the types and amounts of chemicals being used at local businesses. The

laws also require businesses to plan and prepare for a chemical emergency through the preparation of a Hazardous Materials Inventory and a Hazardous Materials Business Plan that are certified annually. Under this program, businesses are inspected at least once every three years by a CUPA inspector to verify compliance with the California Health and Safety Code and California Code of Regulations. Hazardous materials business plans must include the following:

- details, including floor plans, of the facility and business conducted at the site;
- an inventory of hazardous materials that are handled or stored on site;
- an emergency response plan; and
- a training program for safety and emergency response for new employees, with annual refresher courses

### **Fire Hazard Severity Zones**

Government Code Section 51178 requires CAL FIRE to identify fire hazard severity zones in the state. Government Code Section 51179 requires a local agency to designate, by ordinance, FHSZs in its jurisdiction. Specifically, the state is required to designate Very High Fire Severity Zones (VHFHSZs) in Local Responsibility Areas (LRAs). LRAs consist of areas where local agencies are responsible for fire suppression rather than the state.

#### **4.8.3.3 Regional**

##### **San Mateo County Health Department, Environmental Health Division**

As described above, San Mateo County Health Department, Environmental Health Division is the primary local agency approved as the Certified Unified Program Agency (CUPA) with responsibility for implementing federal and state laws and regulations pertaining to hazardous materials management. The Unified Program is described under Section 4.8.3.2, above. As the local CUPA, the San Mateo County Health Department, Environmental Health Division maintains the records regarding location and status of hazardous materials sites in the county, and administers programs that regulate and enforce the transport, use, storage, manufacturing and remediation of hazardous materials. A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction, on behalf of the CUPA. The City of South San Francisco Fire Department maintains a special program that regulates hazardous materials through disclosure and risk management plans, as well as referrals to the County of San Mateo for above ground storage tanks. Thus, the City of South San Francisco Fire Department is a PA with the San Mateo County Health Department, Environmental Health Division as the CUPA.

##### **County of San Mateo Emergency Operations Plan**

The 2015 County of San Mateo Emergency Operations Plan establishes policies and procedures and assigns responsibilities to ensure effective management of emergency response operations within the San Mateo County Operational Area. The emergency management organization in San Mateo County will identify potential threats to life, property and the environment, and develop plans and procedures to protect, prevent and mitigate those assets from potential hazards (e.g., hazardous materials spills).

## Comprehensive Airport Land Use Compatibility Plan

State law requires Airport Land Use Commissions (ALUCs) to prepare and adopt an Airport Land Use Compatibility Plan (ALUCP) for each public use and military airport within their jurisdiction. Further, ALUCs are required to review the plans, regulations, and other actions of local agencies and airport operators within each commission's jurisdiction. SFO is 1.23 miles south of the Specific Plan area and Phase 1 site. The 2012 Comprehensive ALUCP prepared for SFO has four primary areas of concern:

- 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.
- Safety of Persons on the Ground and in Aircraft in Flight – To minimize the potential number of future residents and land use occupants exposed to hazards related to aircraft operations and accidents.
- Height Restrictions/Airspace Protection – To protect the navigable airspace around the Airport for the safe and efficient operation of aircraft in flight.
- Overflight 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 2012 SFO ALUCP contains airport/land use compatibility policies and criteria that apply to all land uses except those considered as existing land uses. ALUCs were given authority to: (1) specify how land near airports is to be used, based on safety and noise compatibility considerations; (2) develop height restrictions for new development to protect airspace in the vicinity of the airport; and (3) establish construction standards for new buildings near airports, including sound insulation requirements. As identified in the 2012 SFO ALUCP, the project site is located within the Federal Aviation Regulation Part 77 sphere of influence, which is the boundary established to regulate obstructions to airspace navigation, including building heights, and within SFO's Airport Influence Areas A and B, requiring ALUC review for consistency with ALUCP policies.

ALUCP Policy SP-1 identifies Safety Compatibility Zones within certain distances from an airport to minimize potential hazards and improve public safety. Policy SP-2 defines incompatible land uses within each Safety Compatibility Zone. There are five safety compatibility zones in the vicinity of SFO. As shown in **Figure 4.10-1** in Section 4.10, *Land Use and Planning*, of this EIR, the southwest corner of the Specific Plan area, overlapping with the Phase 1 site, is located within Zone 4, the Outer Approach/Departure Zone. Additional details regarding compatibility zones including compatibility criteria within these zones are discussed in Section 4.10, *Land Use and Planning*, of this EIR.

### 4.8.3.4 Local

#### South San Francisco General Plan

The 1999 South San Francisco General Plan provides a vision for long-range physical and economic development of the city, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The City General Plan provides a vision for long-range physical and economic development of the city, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are

consistent with the City's plans and policy standards. The City General Plan contains a Health and Safety Element, which acknowledges and mitigates the risks posed by hazards (e.g., hazardous materials and waste). The City General Plan includes the following policies applicable to hazards and hazardous materials:

- Policy 8.3-G-1: Reduce the generation of solid waste, including hazardous waste, and recycle those materials that are used to slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989.
- Policy 8.3-G-2: Minimize the risk to life and property from the generation, storage, and transportation of hazardous materials and waste in South San Francisco. Comply with all applicable regulations and provisions for the storage, use, and handling of hazardous substances, as established by federal (EPA), state (DTSC, RWQCB, Cal/OSHA, CalEPA), and local (County of San Mateo, City of South San Francisco) regulations.
- Policy 8.3-I-2: Continue to maintain hazardous waste regulations in the City's zoning ordinance. The existing zoning ordinance and General Plan prohibits intensive industrial facilities and industries that produce substantial amounts of hazardous waste, prohibits industrial uses involving the permanent storage of hazardous materials, and limits lighter industrial uses that produce hazardous waste, such as auto repair and auto painting businesses, to the Light Industrial land use classification.
- Policy 8.3-I-4: Establish an ordinance specifying routes for transporting hazardous materials. These routes should not pass through residential areas or other sensitive areas. Specific time periods for transport should be established to reduce the impact and accident risk during peak travel periods.
- Policy 8.4-I-3: Require site design features, fire retardant building materials, and adequate access as conditions for approval of development or improvements to reduce the risk of fire within the city.
- Policy 8.6-G-1: Use the City's Emergency Response Plan as the guide for emergency management in South San Francisco.
- Policy 8.7-I-1: Do not permit land uses that pose potential hazards to air navigation in the vicinity of SFO. These land uses include the following:
  - Any use that would direct a steady or flashing light of white, red, green or amber color towards an aircraft engaged in an initial straight climb following takeoff or toward a landing, other than FAA-approved navigational lights;
  - Any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing;
  - Any use that would generate smoke or rising columns of air;
  - Any use that would attract large concentrations of birds within approach and climb-out areas; and
  - Any use that would engage electrical interference that may interfere with aircraft communications or aircraft instrumentation.

## South San Francisco Municipal Code

The South San Francisco Municipal Code includes regulatory requirements addressing use and disposal of hazardous materials and hazardous waste. These regulatory requirements include the following:

- **Section 8.16.125, Yard waste; construction and demolition debris; hazardous waste and household hazardous waste:** Construction debris and/or demolition debris removed from a residential, commercial and industrial or institutional property by a licensed construction or demolition contractor using its own employees and equipment as an incidental part of a comprehensive service offered by such contractor, rather than as a hauling service, may be disposed of by such contractor at any licensed transfer station or materials recovery facility.
- **Section 14.04.320, Coordination with hazardous materials inventory and response program:** The first revision of the business plan for any facility subject to the City's hazardous materials inventory and response program shall include a program for compliance with this chapter, including the prohibitions on non-stormwater discharges and illicit discharges, and the requirement to reduce stormwater pollutants to the maximum extent practicable.
- **Section 14.08.210, General discharge regulations:** It is unlawful to discharge or cause to be discharged directly or indirectly, any pollutant or wastewater into any storm sewer or into any sewage facility which will interfere with the operation or performance or pass through of the Publicly Owned Treatment Works.

## San Bruno Plans and Policies

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within San Bruno in areas that are completely developed, consisting of rights-of-way and easements developed with roadway, sidewalk, and utility improvements; the project would not develop any new structures or new land uses in San Bruno. The specific off-site improvements that are wholly or partially located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. Development of these improvements would be subject to applicable San Bruno plans and policies.

This section identifies and evaluates the proposed project's consistency with relevant policies from the San Bruno General Plan related to hazards and hazardous materials as related to the portions of the off-site improvements located within San Bruno's jurisdiction. For additional discussion of the proposed project's consistency with San Bruno land use plans and policies, refer to Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*, of this EIR.

### San Bruno General Plan

The San Bruno General Plan, adopted in 2009, includes goals and policies associated with hazards and hazardous materials in the Health and Safety Element.<sup>9</sup> These goals and policies include requiring appropriate use, disposal, and transport of hazardous materials; ensuring that all development heeds safety precautions from the San Francisco International Airport; and regulating development on sites with known or suspected contamination of soil and/or groundwater. Specifically, the City's General Plan includes the following goals and policies associated with hazards and hazardous materials that are relevant to the proposed off-site improvements in San Bruno's jurisdiction:

- Policy HS-24: Control the transport of hazardous substances to minimize potential hazards to the local population. Identify appropriate regional and local routes for transportation of hazardous materials, and require that fire and emergency personnel can easily access these routes for response to spill incidents.
- Policy HS-30: Regulate development on sites with known or suspected contamination of soil and/or groundwater to ensure that construction workers, the public, future occupants, and the environment are adequately protected from hazards associated with contamination, in accordance with federal, State, and local rules, regulations, policies, and guidelines.

## 4.8.4 Impacts and Mitigation Measures

This section describes the impact analysis related to hazards and hazardous for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

### 4.8.4.1 Significance Criteria

Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the proposed project would have a significant hazards and hazardous materials impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

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<sup>9</sup> City of San Bruno. 2009. *San Bruno General Plan, Health and Safety Element*. Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24020>. Accessed: December 2, 2020.

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

#### 4.8.4.2 Approach to Analysis

Evaluation of the proposed project, including Phase 1, is based on the hazardous materials technical reports listed in Section 4.8.2, *Environmental Setting*, under *Previous Environmental Investigations*, unless otherwise noted. The technical reports describe existing conditions within the Specific Plan area (including the Phase 1 site), identify potential hazards related to hazardous materials, and provide recommendations for mitigating effects from those hazards. Although the subject properties of the hazardous materials technical reports do not include the off-site improvement areas, the environmental database searches conducted for the Phase 1 ESAs, which generally cover a one-mile radius from the subject site, included the off-site improvement areas. Therefore, this analysis assumes that conditions, impacts, and recommendations identified for the Specific Plan area also apply to the off-site improvement areas.

#### Buildout Scenario Studied (Life Sciences Scenario and Office Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the proposed project would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the proposed project: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses 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.

Under the Life Sciences Scenario, the Specific Plan area would be developed with 1,936,850 square feet of research and development (R&D) uses and 88,200 square feet of amenity uses. R&D uses are typically associated with the handling and use of various hazardous materials, potentially including chemicals, solvents, medical wastes, and infectious agents. The use of these types of materials is more likely to occur with R&D uses as compared to office uses. Therefore, the Life Sciences Scenario has a greater potential to result in significant impacts with respect to hazards and hazardous materials related to the routine transport, use, disposal, or accidental release of hazardous materials, and is analyzed as the “worst-case” scenario for those purposes.

However, the Office Scenario would be the worst-case scenario for impacts related to encountering contaminated soil because the Office Scenario would involve a greater volume of excavation than the Life Sciences Scenario (688,400 cubic yards [cy] under the Office Scenario versus 353,700 cy under the Life Sciences Scenario), resulting in further potential to encounter contaminated soils. This impact is analyzed under Impact HAZ-2.

### 4.8.4.3 Impact Evaluation

**Impact HAZ-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

#### Project

##### **Construction**

Project construction would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and caulking. Such transport, use, and disposal must comply with applicable regulations discussed under Section 4.8.3 *Regulatory Framework*. Although solvents, paints, oils, grease, and caulking would be transported, used, and disposed of during the construction phase, these materials are handled on a temporary basis and are typically used in construction projects and thus, would not represent the routine transport, use, and disposal of acutely hazardous materials. Any spills or releases involving these materials are expected to be small, localized and cleaned as they occur. Therefore, project construction would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials during construction, and this impact would be ***less than significant***. No mitigation is required.

##### **Operation**

Under the Life Sciences Scenario, the Specific Plan area would be developed with R&D uses,<sup>10</sup> including laboratory space with some square footage occupied by office and related uses. Due to the nature of R&D uses, the possibility exists for hazards related to the handling of hazardous materials, including biomedical materials and waste to occur. Any R&D tenant(s) handling qualifying hazardous materials would be required to adhere to all applicable federal, state and local regulations for qualifying hazardous materials, seek consultation with the San Mateo County Environmental Health Department (SMCEHD), and apply for applicable permits for any regulated substance that may pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive. Tenants must comply with the safety procedures mandated by applicable federal, state and local laws and regulations (e.g., RCRA, California Hazardous Waste Control Law and principles prescribed by the US Department of Health Services) to ensure that risks resulting from the routine use of hazardous materials and disposal of hazardous wastes remain less than significant. In addition, registration of the hazardous materials through the SMCEHD Hazardous Material Business Plan Program would be required to ensure safe and responsible handling those qualifying materials.

Support office and related amenity uses included within the Life Sciences Scenario would involve the use of hazardous chemicals that are typical in retail, fitness center, meeting space, and office settings (e.g., toners, paints, kitchen and restroom cleaners, other maintenance materials). Landscape maintenance on the project site, including the off-site improvement areas, would require

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<sup>10</sup> Section 20.620.005 of the South San Francisco Municipal Code defines R&D use as: “A facility for scientific research and the design, development, and testing of electrical, electronic, magnetic, optical, pharmaceutical, chemical, and biotechnology components and products in advance of product manufacturing. Includes assembly of related products from parts produced off-site where the manufacturing activity is secondary to the research and development activities.”

the use of a wide variety of commercial products that are formulated with hazardous materials (e.g., fuels, cleaners and degreasers, solvents, paints, lubricants, adhesives, sealers, and pesticides/herbicides). Such materials are considered common and are unlikely to be stored or used in large quantities. Any spills involving these materials would be small and localized and would be cleaned up as they occur. The off-site improvement areas would be developed with circulation improvements and underground utilities, the operation of which would not require routine transport, use, or disposal of hazardous materials.

The City of South San Francisco requires that building spaces be designed to handle the intended office and R&D uses, with sprinklers, alarms, vents, and secondary containment structures, in accordance with the guidelines set forth the City's Fire Code (South San Francisco Municipal Code 15.24010 California Fire Code, 2019 Edition, adopted by reference). Compliance with state and local regulations would ensure that buildings are equipped with safety measures including sprinklers, alarms, etc., to minimize potential impacts of the presence of hazardous materials. Prior to issuance of a Certificate of Occupancy for completed structures, the City requires final inspection by the South San Francisco Fire Department to ensure conformance of all building systems with the City's Fire Code and National Fire Protection Association requirements.

The inspection includes a review of the emergency evacuation plans. Finally, compliance with the California Department of Transportation regulations would ensure that all necessary safety precautions would be taken during transport of hazardous materials during all phases of the project. Therefore, mandatory compliance with all applicable federal, State and local regulations pertaining to the safe use, storage, transport and disposal of hazardous materials would ensure that the project would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials during operation, and this impact would be ***less than significant***. No mitigation is required.

## Phase 1

### ***Construction***

Phase 1 site construction would involve routine transport, use, and disposal of hazardous materials such as the materials mentioned under the project analysis above. Thus, the construction analysis for the project applies to Phase 1. Phase 1 site construction would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials during construction, and this impact would be ***less than significant***. No mitigation is required.

### ***Operation***

Phase 1 would include office uses that would use materials typical of retail, fitness center, meeting space, and office settings (e.g., toners, paints, kitchen and restroom cleaners, other maintenance materials). Landscape maintenance would require some hazardous materials use as well (also described above in the project analysis). These types of materials are considered common and unlikely to be stored or used in significant quantities. Furthermore, spills involving these materials would be small and localized and would be cleaned up as they occur. Per the proposed Precise Plan, Phase 1 would not include R&D uses. However, to the extent that any regulated materials would be utilized within the Phase 1 site, tenants must comply with the safety procedures mandated by applicable federal, state and local laws and regulations (e.g., RCRA, California Hazardous Waste Control Law and principles prescribed by the US Department of Health Services) to ensure that risks resulting from the routine use of hazardous materials and disposal of hazardous wastes remain less

than significant. The off-site improvement areas developed during Phase 1 would be developed with circulation improvements and underground utilities, the operation of which would not require routine transport, use, or disposal of hazardous materials. Therefore, Phase 1 operations would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials during operation and this impact would be ***less than significant***. No mitigation is required.

**Impact HAZ-2: The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Project: *Less than Significant with Mitigation*; Phase 1: *Less than Significant with Mitigation*)**

### **Project**

As discussed in Section 4.8.2, *Environmental Setting*, multiple site-specific investigations were prepared between 2017 and 2020 for portions of the Specific Plan area, including the Phase 1 site. Certain reports cover select portions of the Specific Plan area. The technical reports are included in full in **Appendix 4.8-1**. These investigations concluded that prior releases of hazardous materials have occurred within various portions of the Specific Plan area. Therefore, the potential for contaminated on-site soil and/or groundwater exists within the Specific Plan area, and presumably within the off-site improvement areas, given their proximity to the Specific Plan area. Depending on the contaminant characteristics and extent of contamination in particular locations, ground disturbance and excavation activities conducted during construction are likely to encounter contaminated soil. Additionally, dewatering within the Specific Plan area could result in the withdrawal of contaminated groundwater. If the groundwater contains contaminants above regulatory levels, a release of the water could present a hazard to people or the environment unless properly managed. As discussed in Section 4.9, *Hydrology and Water Quality*, of this EIR, ground disturbance could also result in the exposure of pollutants from spills or other activities and may contaminate groundwater. Groundwater dewatering may also mobilize existing groundwater contaminant plumes. For these reasons, encountering contaminated soil and/or groundwater would create an exposure risk to construction personnel and the surrounding environment, resulting in a potentially significant impact.

In order to address these potential risks associated with the accidental release of hazardous materials related to contaminated groundwater and/or contaminated soil, future development within the Specific Plan area would be required, as conditions of approval, to incorporate recommendations described in the prior site-specific investigations described in Section 4.8.2. To further address these risks, project applicants, including the Phase 1 applicant, would need to implement a Soil Management Plan (described below as **Mitigation Measure HAZ-2a**) to minimize the potential exposure of construction personnel to contaminated soils, unknown environmental conditions or subsurface features. In addition, to further address potential risks associated with contaminated groundwater, as discussed in Section 4.9, *Hydrology and Water Quality*, of this EIR, project applicants, including the Phase 1 applicant, would be required to conduct groundwater monitoring and ensure adequate treatment and disposal of contaminated groundwater, if encountered, pursuant to **Mitigation Measure HWQ-1**. With implementation of standard regulatory compliance measures, potentially contaminated soils and groundwater would be handled, transported, and disposed of in accordance with applicable local, state, and federal regulations and requirements.

It is also reasonably foreseeable that potential upset and accident conditions involving the release of hazardous materials could occur resulting from previously unknown soil and/or groundwater contamination, such as encountering a previously unidentified UST. This potential risk would also be addressed in coordination and under oversight of the applicable oversight federal, state, and/or local agency (e.g. EPA, State Water Resources Control Board, DTSC, or local Environmental Health or Fire Department). The type and extent of the contamination will dictate the appropriate response and remediation appropriate for the site and the agencies to be notified.

According to the Phase I ESA conducted for the 325 Maple Avenue site (2019), a vapor encroachment condition exists at this location. As a result, future development to occur at this location (as part of a future phase) could result in migration of vapor-forming chemicals from subsurface sources into future, overlying buildings. Implementation of **Mitigation Measure HAZ-2b** below would ensure that engineering controls in the form of vapor mitigation systems are implemented to redirect or minimize vapor encroachment, thereby reducing potential impacts in this area.

In addition, as discussed in Section 4.8.2, *Environmental Setting*, various buildings and structures within the Specific Plan area may contain asbestos-containing materials and/or lead-based paint. Demolition of existing structures within the Specific Plan area may expose construction workers, the public or the environment to hazardous materials such as lead-based paint, asbestos and PCBs. The level of potential impact is dependent upon the age, construction and building materials in each area of the building. Any activity that involves cutting, grinding or drilling during building renovation or demolition, or relocation of underground utilities, could release friable asbestos fibers and/or lead dust, unless proper precautions are taken. Potential exposure to hazardous building materials would be reduced through appropriate identification, removal and disposal according to applicable regulations. Specifically, buildings and structures that are scheduled to be demolished that are known to have hazardous building materials (as summarized in section 4.8.2, *Environmental Setting*; 240 Dollar Avenue and 180 Linden Avenue, 160 Linden Avenue, 50 Tanforan Avenue and 30/40 Tanforan Avenue have undergone a Hazardous Building Materials Survey) would require proper abatement procedures prior to construction activities to reduce potential impacts, and remaining buildings to be demolished that have not been previously surveyed would require a Hazardous Building Materials Survey as described under **Mitigation Measure HAZ-2c**, below.

With the implementation of site-specific recommendations included in the various investigations mentioned, compliance with regulatory requirements, and implementation of the mitigation measures described below, impacts associated with the potential upset and accident conditions involving the release of hazardous materials into the environment would be ***less than significant with mitigation***.

#### **Mitigation Measure HAZ-2a: Prepare a Soil Management Plan Prior to Issuance of Grading Permit (All Phases)**

Prior to issuance of any grading permit, the Phase 1 applicant and applicants of future Precise Plans shall retain the services of a qualified environmental engineering firm to prepare and implement, during site preparation, grading, and excavation activities, a Soil Management Plan (SMP). The SMP shall be designed to protect human health of construction workers, the public and the environment during site preparation, grading, and excavation activities by including protocols, measures, and techniques for the proper handling, management, and disposition of affected soils found on the site and any areas of off-site work during site preparation and

grading activities. The SMP shall also ensure the proper characterization, management, and/or disposal of contaminated environmental media that is above applicable Environmental Screening Levels (ESLs) by recommending additional sampling activities (as necessary), including profile sampling for proper disposal. The SMP shall be prepared by a commercial environmental engineering firm with demonstrated expertise and experience in the preparation of SMPs and shall be stamped by an appropriately licensed professional. The SMP shall be implemented by the Phase 1 applicant and applicants of future Precise Plans throughout all ground-disturbing work.

The SMP shall establish protocols and measures for addressing the discovery of presently unknown environmental conditions or subsurface structures such as USTs, sumps, or wells. If the environmental engineering firm subsequently identifies the need for further sampling, the project applicant shall implement this and any other requirements identified in the SMP. The project applicant shall enter into a voluntary agreement with the San Francisco Bay Regional Water Quality Control Board (RWQCB) for review and approval of the SMP prior to construction activities. The RWQCB will also have oversight authority pertaining to implementation of the SMP. If directed by the RWQCB, the project applicant shall conduct additional site investigation and characterization prior to construction to ensure that hazardous materials in the soil, soil vapor, and/or groundwater do not exceed applicable regulatory thresholds.

**Mitigation Measure HAZ-2b: Engineering Controls to Address Vapor Encroachment Conditions (Future Phases that Include the Property at 325 South Maple Avenue)**

Prior to the issuance of a building permit for development within the property at 325 South Maple Avenue, the project applicant shall demonstrate compliance with applicable requirements imposed by the San Francisco Bay Regional Water Quality Control Board (RWQCB) or San Mateo County Health, Environmental Health Services for soil vapor sampling and risk evaluation to address vapor intrusion concerns. Prior to the issuance of a certificate of occupancy, engineering controls designed by a qualified engineer to address vapor encroachment conditions by redirecting and or minimizing VOC concentrations in compliance with San Francisco Bay RWQCB (or San Mateo County Health) requirements and shall be implemented on the site. Specific engineering controls may include, but will not be limited to:

- Installation of subsurface migration barriers; and/or
- Inclusion of ventilated foundations for any proposed structures; and/or
- The use and implementation of an alternative method or structural design that would address soil gas releases and reduce the potential for hazardous conditions to occur.

Appropriate engineering control system(s) shall be determined with concurrence, approval, and oversight of the San Francisco Bay RWQCB or San Mateo County Health, as applicable, and shall be dependent on future building placement and construction. Project applicants shall comply with all applicable San Francisco Bay RWQCB or San Mateo County Health requirements for long-term operation, monitoring, and maintenance of the vapor mitigation systems. Any land use covenant required by the San Francisco Bay RWQCB or San Mateo County Health to assure the long-term efficacy of the vapor mitigation systems shall be recorded in property title records by the project sponsor(s) or successor owner(s). If at the time of development, the 325 South Maple Avenue site has obtained case closure from the San Francisco Bay RWQCB or San Mateo

County Health and vapor intrusion is deemed no longer a concern, implementation of this mitigation measure would no longer be required.

**Mitigation Measure HAZ-2c: Conduct a Hazardous Building Materials Survey prior to Demolition Activities and Hazardous Building Material Handling (All Phases)**

Prior to the issuance of any demolition permit, the Phase 1 applicant and applicants of future Precise Plans shall ensure that a Hazardous Building Materials Survey is conducted by a licensed contractor on structures that will be demolished and have not been surveyed previously. The Hazardous Building Materials Survey shall identify the presence of hazardous building materials including: asbestos-containing materials (ACMs), lead-based paint (LBP), and poly-chlorinated biphenyls (PCBs). Should this survey determine that lead-based paint and/or asbestos or other hazardous building materials are present, the following actions shall be implemented by the Phase 1 applicant and applicants of future Precise Plans:

- A health and safety plan shall be developed by a certified industrial hygienist for potential lead-based paint, asbestos or other hazardous building materials risks present during demolition. The health and safety plan shall then be implemented by a licensed contractor. The health and safety plan shall comply with federal Occupational Safety and Health Administration (OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA) requirements.
- Necessary approvals shall be acquired from the City and/or County (by the licensed contractor) for specifications or commencement of abatement activities. Abatement activities shall be conducted by a licensed contractor.
- Prior to demolition of building materials containing asbestos, the Bay Area Air Quality Management District (BAAQMD) shall be notified ten days prior to initiating construction and demolition activities. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. In addition:
  - Asbestos shall be disposed of at a licensed disposal facility to be identified by the licensed contractor.
  - The local office of the Cal/OSHA shall be notified of asbestos abatement activities.
  - Asbestos abatement contractors shall follow state regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material.
  - Asbestos removal contractors shall be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur shall have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento.
- The contractor and hauler of hazardous building materials shall file a Hazardous Waste Manifest that details the hauling of the material from the site and the disposal of it. Pursuant to California law, the City of South San Francisco shall not issue the required permit until the applicant has complied with the notice requirements described above.

**Mitigation Measure HWQ-1: Require Groundwater Monitoring and Sampling Prior to Dewatering Activity (All Phases).** Refer to *Section 4.9, Hydrology and Water Quality*, of this EIR.

**Phase 1**

Similar to the proposed Specific Plan area, properties in the Phase 1 site have a history of hazardous materials releases and site investigations, remediation, and monitoring. Environmental information described for 240 Dollar Avenue; 160 and 180 South Linden Avenue; and 30/40, 46, 50, 54 Tanforan Avenue applies to the Phase 1 site as they are located within its footprint (the *Environmental Setting* section describes investigations conducted in more detail).

Due to the environmental history of the Phase 1 site, it is possible that soil disturbance activities during construction could expose people and the surrounding environment to residual or undocumented contamination associated with the aforementioned releases. Implementation of **Mitigation Measure HAZ-2a** would reduce potential impacts associated with residual or undocumented contaminated soil to less than significant with mitigation. **Mitigation Measure HAZ-2a** would also account for the potential exposure to previously unknown subsurface features. Implementation of a *Soil Management Plan* was part of the recommendations found in the 2018 Phase II ESA prepared for 50 Tanforan Avenue. Implementation of **Mitigation Measure HWQ-1** in *Section 4.9, Hydrology and Water Quality*, of this EIR, would ensure the impacts related to the potential release of contaminated groundwater would be less than significant.

Implementation of **Mitigation Measure HAZ-2b** would address the potential impacts associated with vapor encroachment conditions identified within the Phase 1 site.

For sites that have conducted pre-renovation hazardous materials surveys, the hazardous materials would be removed (as recommended in the surveys) by a qualified consulting firm prior to construction. Pursuant to **Mitigation Measure HAZ-2c, a** hazardous building materials survey would be conducted on the remaining buildings to be demolished (that have not been surveyed previously) within the Phase 1 site footprint.

In summary, implementation of **Mitigation Measure HAZ-2a, Mitigation Measure HAZ-2b, Mitigation Measure HAZ-2c, and Mitigation Measure HWQ-1** would reduce this potentially significant impact associated with residual and undocumented contamination, subsurface features, and hazardous building materials (during demolition) to *less than significant with mitigation* for Phase 1 by ensuring that the potential for release or exposure to hazardous materials is minimized.

**Impact HAZ-3: The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (Project: No Impact; Phase 1: No Impact)**

**Project**

There are no existing schools within 0.25 mile of the project site. The nearest school is the South San Francisco High School located approximately 0.47 mile to the northwest of the project site. Thus, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a school. **No impact** would occur.

## Phase 1

For the reasons stated above in the project analysis, Phase 1 would have ***no impact*** related to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of a school.

**Impact HAZ-4: The project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, but would not create a significant hazard to the public or the environment. (Project: *Less than Significant with Mitigation*; Phase 1: *Less than Significant with Mitigation*)**

## Project

Online CalEPA *Cortese List Data Resources*<sup>11</sup> were consulted to determine if any of the addresses located within the Specific Plan area are located within any of the resources that comprise the list. One address located within the Specific Plan area was identified in the DTSC's Cleanup Sites database (via DTSC's EnviroStor website):

**West Coast Automotive Service Center** at 160 South Linden Avenue - The property is listed as a corrective action site. According to EnviroStor, the site is listed as *Inactive - Needs Evaluation as of 3/30/2011*. The site is associated with a Du Pont paint manufacturing facility. A 2004 Abbreviated Preliminary Assessment Report stated that several investigations and remedial activities have been conducted on-site to address both soil and groundwater impacts. As discussed in Section 4.8.2, *Environmental Setting*, a 2018 Phase I ESA conducted at this location determined that the extent of hydrocarbon-impacted groundwater had been adequately defined, and although residual concentrations were above drinking water ESLs, no current exposure pathway to human or environmental receptors exists as no water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted. Based on evidence that the contaminant plume is decreasing with time, the Phase I ESA indicated that residual concentrations are anticipated to reach appropriate regulatory limits for drinking water quality naturally. A commercial deed restriction was issued to the site and in September of 2011, San Mateo County Environmental Health issued a No Further Action (NFA) letter associated with the petroleum releases at the property as the case was considered a low-risk groundwater case as defined by the San Francisco Bay RWQCB. Since the groundwater contaminant plume is stabilized and does not extend significantly off-site, there is no potential for significant transport and concentration of contaminants in sensitive ecological habitats.

Future redevelopment within the 160 South Linden Avenue portion of the Specific Plan area would be required to adhere to the deed restriction and DTSC oversight (as mentioned above, the site is listed as a corrective action site in need of evaluation and under purview of the DTSC). With adherence to applicable deed restrictions and input and oversight from DTSC, impacts associated with the aforementioned listing would be less than significant.

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<sup>11</sup> The CalEPA *Cortese List Data Resources* (<https://calepa.ca.gov/SiteCleanup/CorteseList/>) provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements and include:

- List of Hazardous Waste and Substances sites from DTSC's EnviroStor database
- List of Leaking Underground Storage Tank Sites from the State Water Board's GeoTracker database
- List of solid waste disposal sites identified by the Water Board with waste constituents above hazardous waste levels outside the waste management unit
- List of "active" Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the Water Board
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code

Two locations within the Specific Plan area (and within the Phase 1 site boundary) were identified in the LUST database (via State Water Resources Control Database's GeoTracker website):

- **Malaspina Property** at 30 Tanforan Avenue - The property is listed with gasoline impacts to undisclosed media. According to GeoTracker, the site is listed as a *Completed - Case Closed* site (as of 2017). Cleanup agencies included the San Mateo Local Oversight Program (LOP) and the San Francisco Bay RWQCB. Additional environmental details associated with the site are included in the *Environmental Setting* section above.
- **EFL Transportation at 50 Tanforan Avenue** - The property is listed with diesel impacts to groundwater. According to GeoTracker, the site is listed as a *Completed - Case Closed* site (as of 1996). Cleanup agencies included the San Mateo LOP and the San Francisco Bay RWQCB. Additional environmental details associated with the site are included in the *Environmental Setting* section above.

Contamination at both the Malaspina Property and EFL Transportation properties have been addressed to the satisfaction of the oversight agencies as indicated on the state GeoTracker database. Thus, potential impacts associated with the aforementioned LUST listings are considered unlikely. In addition, implementation of **Mitigation Measure HAZ-2a** (as mentioned under Impact HAZ-2) would further reduce potential exposure to construction workers and the public to any potential residual contamination in on-site soils if encountered. Thus, impacts associated with creation of a significant hazard to the public or the environment resulting from the project being located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 would be ***less than significant with mitigation***.

### Phase 1

As stated above in the project analysis, one property identified in the DTSC's Cleanup Sites database and two properties identified in the LUST database are located within the Phase 1 site boundary. No other sites within the Phase 1 site boundary were identified in the *Cortese List Data Resources*. For the reasons stated above in the project analysis, impacts associated with the Phase 1 site being located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 would be ***less than significant with mitigation***.

**Impact HAZ-5: The project would not result in a safety hazard or excessive noise for people residing or working in the project area. (Project: Less than Significant; Phase 1: Less than Significant)**

### Project

SFO is approximately 1.23 miles southeast of the project site. The project site is located within the Federal Aviation Regulation Part 77 sphere of influence and within the boundaries of Airport Influence Area (AIA) A and B of the SFO ALUCP. As such, the compatibility criteria contained within the ALUCP are applicable to development within the project site. The Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport is used by the City/County Association of Governments of San Mateo County (C/CAG) to promote compatibility between SFO and surrounding land uses. The ALUCP compatibility criteria, as derived from the Federal Aviation Administration (FAA), are used to safeguard the general welfare of the public.

In general, height limitations and restrictions in the area are defined by the SFO Airport AIA. According to the 2012 SFO ALUCP, notification and consultation with the FAA under CFR Part 77.9

would be required for implementation of the project. Building heights under the project would range from four to seven stories, subject to maximum height limits in accordance with Federal Aviation Administration (FAA) and San Francisco International Airport Land Use Compatibility Plan requirements; maximum heights would be approximately 115 feet depending on the specific elevation of the relevant portion of the Specific Plan area and the applicable height contours under these regulations (see **Figure 4.10-2** in Section 4.10, *Land Use and Planning*, of this EIR). As discussed in Section 4.10, *Land Use and Planning*, and shown in **Figure 4.10-1**, a small portion of the southwest corner of the Specific Plan area is located within Safety Compatibility Zone 4, the Outer Approach/Departure Zone. Proposed development within that portion of the Specific Plan area would consist of streetscape, open space, and the four-story commercial amenities use building, which are permissible uses for Zone 4. In addition, as the proposed off-site improvements consist of roadways, sidewalks, and utility easements along roadways surrounding the Specific Plan area, height limitations and restrictions would not be exceeded. As discussed in Section 4.11, *Noise and Vibration*, of this EIR (Impact NOI-3), the types of uses proposed by the project are compatible with ALUCP noise contours (see **Figure 4.10-3** in Section 4.10, *Land Use and Planning*, of this EIR). Pending consultation with C/CAG and the FAA, it is expected that the project would be compatible with the applicable land use compatibility policies under the SFO ALUCP. Development within the Specific Plan area would be required to comply with the FAA and ALUCP building height regulations and would otherwise be compatible with the land uses contemplated for the project site under the ALUCP; as such, the project would not pose a safety hazard or generate excessive noise for people working in the project area. Impacts would be ***less than significant***.

#### Phase 1

For the reasons stated above in the project analysis, Phase 1 impacts related to noise and safety hazards within an airport land use plan would be ***less than significant***.

**Impact HAZ-6: The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

#### Project

Project development would not include any permanent changes to existing public roadways that provide emergency access to the project site or surrounding area. On the contrary, the off-site improvements consisting of roadways and sidewalks within and surrounding the Specific Plan area would improve roadway circulation and adjacent intersections, resulting in improved access to the project site and the surrounding area. Within the Specific Plan area, the proposed project would demolish all existing on-site uses and construct a transit-oriented office/R&D campus with a maximum anticipated building area of 2.8 million square feet, including a new roadway (Southline Avenue). During construction, it is possible that construction activity could potentially affect emergency response or evacuation plans due to temporary construction barricades or other roadway obstructions that could impede emergency access on-site. However, compliance with the City's standard condition of approval requiring a pre-construction meeting (for large projects featuring significant work in the public right-of-way) would minimize potential impacts associated with emergency response times access. After building permits are approved, and prior to initiating construction activities, the applicant would be required to hold a pre-construction meeting with City planning, building, and engineering staff and other interested parties (including the South San Francisco Police and Fire Departments) to cover topics such as the project's applicable conditions of

approval, permits issued, construction schedule, staging, logistics, traffic control, site security, and access. During the pre-construction meeting, representatives of the police and fire departments would ensure adequate access to the project site and surrounding areas is provided in the event of an emergency; therefore, emergency response access or emergency evacuation plan routes would not be impeded significantly during the construction period.

The project would not involve structures that would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. On the contrary, as described in Chapter 3, *Project Description*, the Project would provide circulation improvements and roadway design within and adjacent to the Specific Plan area within the off-site improvements area in a manner that ensures that all police, fire, and emergency medical service vehicles can safely and efficiently navigate through the area. Furthermore, development of the new Southline Avenue would provide additional emergency access options to and from the Specific Plan area. Therefore, development of the project is not expected to interfere with the County of San Mateo's Emergency Operations Plan or any evacuation route. Adequate access to project site would be improved by incorporating circulation and access improvements from east to west. The City of South San Francisco requires that upon completion of the proposed building, occupancy is not allowed until a final inspection is made by the South San Francisco Fire Department, which includes a review of the emergency evacuation plans.

Furthermore, R&D tenants who handle hazardous materials would be required to adhere to all applicable regulations including the California Hazardous Materials Release Response Plans and Inventory Law and the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (including Hazardous Materials Release Response Plan coordinated with the San Mateo County Department of Environmental Health and the South San Francisco Fire Department). Adherence to the aforementioned regulations and plans would ensure a proper response and evacuation in the event of an emergency associated with a hazardous material release.

Therefore, the project would not impair implementation of or interfere with an adopted emergency response plan or emergency evacuation plan and this impact would be ***less than significant***.

### Phase 1

For the reasons stated above in the project analysis, Phase 1 would not impair implementation of or interfere with an adopted emergency response plan or emergency evacuation plan. Additionally, most off-site improvements consisting of roadways, sidewalks, and utility easements along roadways surrounding the Specific Plan area would be conducted during Phase 1 and would improve roadway circulation and access in the area. This impact would be ***less than significant***.

**Impact HAZ-7: The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. (Project: No Impact; Phase 1: No Impact)**

### Project

The project site is a highly developed industrial area, and no wildlands are intermixed within this industrial area. Land uses surrounding the project site include commercial, industrial, and warehouse facilities, located to the north and east; residential uses to the south; and the San Bruno Bay Area Rapid Transit (BART) station and The Shops at Tanforan and San Bruno Towne Center to the west. The closest wildlands area is Sign Hill Park located approximately 1.5 miles from the

project site. According to CAL FIRE, the project site is not within a Very High Fire Hazard Severity Zone. The project would not exacerbate wildfire risks of any nature, and it not located in or near a Local or State Responsibility area with a Very High Fire Hazard Severity Zone designation. The project is not susceptible to significant risk of loss, injury or death involving wildland fires. Therefore, because the project site is in a densely developed urban area with no nearby wildland areas, there would be ***no impact***.

#### Phase 1

For the reasons stated above in the project analysis, the Phase 1 site is in a densely developed urban area with no nearby wildland areas, there would be ***no impact***.

### 4.8.4.4 Cumulative Impacts

**Impact C-HAZ-1: The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a significant cumulative impact on hazards and hazardous materials. (Project: Less than Significant; Phase 1: Less than Significant)**

The cumulative geographic context for hazards and hazardous materials is the project site and nearby properties in the immediate vicinity. Similar to the project, reasonably foreseeable projects could result in construction impacts related to the routine transport, disposal, or handling of hazardous materials; intermittent use and transport of petroleum-based lubricants, solvents, and fuels; and transport of affected soil to and from sites. However, hazardous waste generated during construction of any project would be collected, properly characterized for disposal, and transported in compliance with federal, state and local regulations as described under *Regulatory Setting*. Hazardous materials are strictly regulated by local, state, and federal laws. Specifically, these laws are designed to ensure that hazardous materials do not result in a gradual increase in toxins in the environment. For each of the reasonably foreseeable projects under consideration, various project-specific measures (such as the ones identified for this project) would be implemented as a condition of development approval to mitigate risks associated with exposure to hazardous materials. With implementation of applicable regulatory requirements, cumulative impacts related to hazards and hazardous materials would be less than significant, and the project would not result in a cumulatively considerable contribution to a significant cumulative hazard or hazardous materials impact.

The project would contribute to a cumulative increase in the amount of hazardous materials transported to and from the surrounding area. Cumulative increases in the transportation of hazardous materials and wastes would not be significant because the probability of accidents is relatively low due to stringent regulations that apply to transport, use and storage of hazardous materials. The project, in combination with other development in the immediate vicinity would add to cumulative traffic congestion on those roadways used for evacuation. However, the project site and immediate vicinity are well serviced by an extensive vehicular circulation network, allowing for multiple possible evacuation routes in the case of an emergency. Moreover, the project would implement various circulation improvements within the project site that would improve access to the project site and surrounding areas. As such, the project would not result in a cumulatively considerable contribution to a significant cumulative impact related to interference with an adopted emergency response plan or emergency evacuation plan.

Development of the project would contribute to a cumulative increase in the demand for emergency response capabilities. Any growth involving increased use of hazardous materials has the potential to increase the demand for emergency response capabilities. First response capabilities and hazardous materials emergency response capabilities are currently available and sufficient for all cumulative projects. Substantive hazardous materials accidents within the project site or its vicinity are expected to be rare, and if such incidents were to occur, only one such incident would be expected at any one time (except during major catastrophes).

For these reasons, the project, inclusive of Phase 1, in combination with other past, present, and reasonably foreseeable future projects located within the immediate vicinity of the project site, would not result in a significant cumulative hazards or hazardous materials impact. The cumulative impact would be ***less than significant***.

## 4.9 Hydrology and Water Quality

### 4.9.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the proposed project (Phase 1), on hydrology and water quality. This section also describes the existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes the *Storm Drainage Technical Study Southline Development Project* (Storm Drainage Technical Study) prepared for the proposed project by BKF in April 2021 (**Appendix 4.9-1**),<sup>1</sup> the *Southline Development Design-Level Geotechnical Investigation* (Design-Level Geotechnical Investigation) prepared for the proposed project by Cornerstone Earth Group in July 2020 (**Appendix 4.6-1**),<sup>2</sup> and the *Phase I Environmental Site Assessment of 325 Maple Ave/325 South Maple Avenue* and *Limited Phase II Environmental Site Assessment Report 240 Dollar Avenue* (Phase I and Phase II ESAs) prepared for the proposed project by ATC Group Services (**Appendix 4.8-1**).<sup>3,4</sup> The study area for the Storm Drainage Technical Study, Design-Level Geotechnical Investigation, and Phase I and Phase II ESAs is the Specific Plan area (or, in the case of the Phase I and Phase II ESAs, specific properties within the Specific Plan area). Given the proximity of the off-site improvement areas to the Specific Plan area, it is assumed that existing conditions and impacts described for the Specific Plan area would be the same or substantially similar at the off-site improvement areas. Therefore, unless otherwise noted, the existing conditions and impacts described for the Specific Plan area in the Storm Drainage Technical Study, Design-Level Geotechnical Investigation, and Phase I and Phase II ESAs are assumed to apply to the project site as a whole, inclusive of the off-site improvement areas.

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. The NOP comments pertaining to hydrology and water quality include comments about project-related discharge rates and proposed drainage features to address the project site's location within the Colma Creek Flood Control Zone, compliance of stormwater treatment facilities with National Pollutant Discharge Elimination System (NPDES) requirements, and ensuring proper water pollution control best management practice (BMP) devices are installed and maintained. These issues are addressed below in Section 4.9.4, *Impacts and Mitigation Measures*.

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<sup>1</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

<sup>2</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129.3.6. July 28, 2020.

<sup>3</sup> ATC Group Services LLC. 2019. Phase I Environmental Site Assessment of 325 Maple Ave/325 South Maple Avenue South San Francisco, California ATC PROJECT NO. NPGS19033. October 31.

<sup>4</sup> ATC Group Services LLC. 2018. Limited Phase II Environmental Site Assessment Report 240 Dollar Avenue South San Francisco. June 7.

## 4.9.2 Environmental Setting

This section provides a discussion of the existing conditions related to hydrology and water quality on the project site.

### 4.9.2.1 Regional Setting

#### Climate and Topography

The project site is located in a relatively flat area, immediately adjacent to the San Francisco Bay (Bay) shoreline, in the City of South San Francisco (City). The regional climate is typical of the Bay Area and is characterized by dry, mild summers and moist, cool winters. Average annual precipitation measured from the nearest weather station is between 0.02 inch and 4.31 inch per year. Approximately 84 percent of the total annual precipitation occurs during the months of November through March. Average daily temperatures range from a high of 73.4 degrees to a low of 42.6 degrees.<sup>5</sup>

The project site totals approximately 33 acres, and is comprised of the Specific Plan area and the off-site improvement areas. The Specific Plan area comprises seven parcels totaling approximately 26.5 acres and is located in the City of South San Francisco. The Specific Plan area is completely developed. The approximately 6.4-acre off-site improvement areas are located in the City of South San Francisco and within the jurisdictions of the City of San Bruno and Bay Area Rapid Transit (BART). The off-site improvement areas are also completely developed, consisting of rights-of-way and easements developed with roadway, sidewalk, and utility improvements. The surrounding area is largely developed with commercial, industrial, and warehouse facilities to the north and east; predominately single-family residences to the south; and the San Bruno BART station, The Shops at Tanforan, and San Bruno Towne Center to the west. The off-site improvement areas consist of rights-of-way and easements developed with existing circulation and utility infrastructure improvements. The majority of the Specific Plan area is hardscaped with a mix of asphalt parking and building structures. The unpaved portions of the Specific Plan area are landscaped or ruderal areas between parcels. The Specific Plan area contains some ornamental landscaping and approximately 162 trees. The off-site improvement areas contain additional ornamental landscaping and approximately 19 trees, with four trees near the intersection of South Linden Avenue and Dollar Avenue in the City of South San Francisco, and 15 trees near the proposed Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue intersection in the cities of South San Francisco and San Bruno.<sup>6</sup>

The topography of the project site and surrounding vicinity is relatively flat, with a slight downward slope toward the northeast. The project site elevation ranges from approximately 17 to 33.25 feet (NAVD 88)<sup>7</sup> above mean sea level (MSL).

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<sup>5</sup> Western Regional Climate Center. 2021. Period of Record Monthly Climate Summary San Francisco International Airport, California (047769) Period of Record: 07/01/1945 to 06/09/2016. Available: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7769>. Accessed: February 2, 2021.

<sup>6</sup> Aerial and street view imagery from Google Earth was used to approximate the number of trees in the off-site improvement areas.

<sup>7</sup> The North American Vertical Datum of 1988 (NAVD 88) is the vertical control datum established in 1991 by the minimum-constraint adjustment of the Canadian-Mexican-United States leveling observations. It held fixed the height of the primary tidal bench mark, referenced to the new International Great Lakes Datum of 1985 local mean sea level height value, at Father Point/Rimouski, Quebec, Canada.

## Surface Water

The City is built on the bay plain and on the northern foothills of the Coastal Range. South San Francisco includes the Colma Creek watershed within the County of San Mateo's Colma Creek Flood Control Zone. The project site is within the Colma Creek-Frontal San Francisco Bay Estuaries watershed within the larger San Francisco Bay Watershed. The Colma Creek-Frontal San Francisco Bay Estuaries Watershed encompasses approximately 32 square miles.<sup>8</sup> Headwaters of Colma Creek are in the San Bruno Mountain, the creek drains a highly urbanized watershed. Only a small number of tributaries on San Bruno Mountain remain in a natural state. Colma Creek predominantly flows in straight, engineered channels or underground storm drains. The Colma Creek flood control channel is maintained by the San Mateo County Department of Public Works and drains into San Francisco Bay just north of the San Francisco International Airport. Runoff throughout the City is collected in the City's storm drainage system, which discharges to Colma Creek or San Francisco Bay. Colma Creek is less than one mile north of the project site.

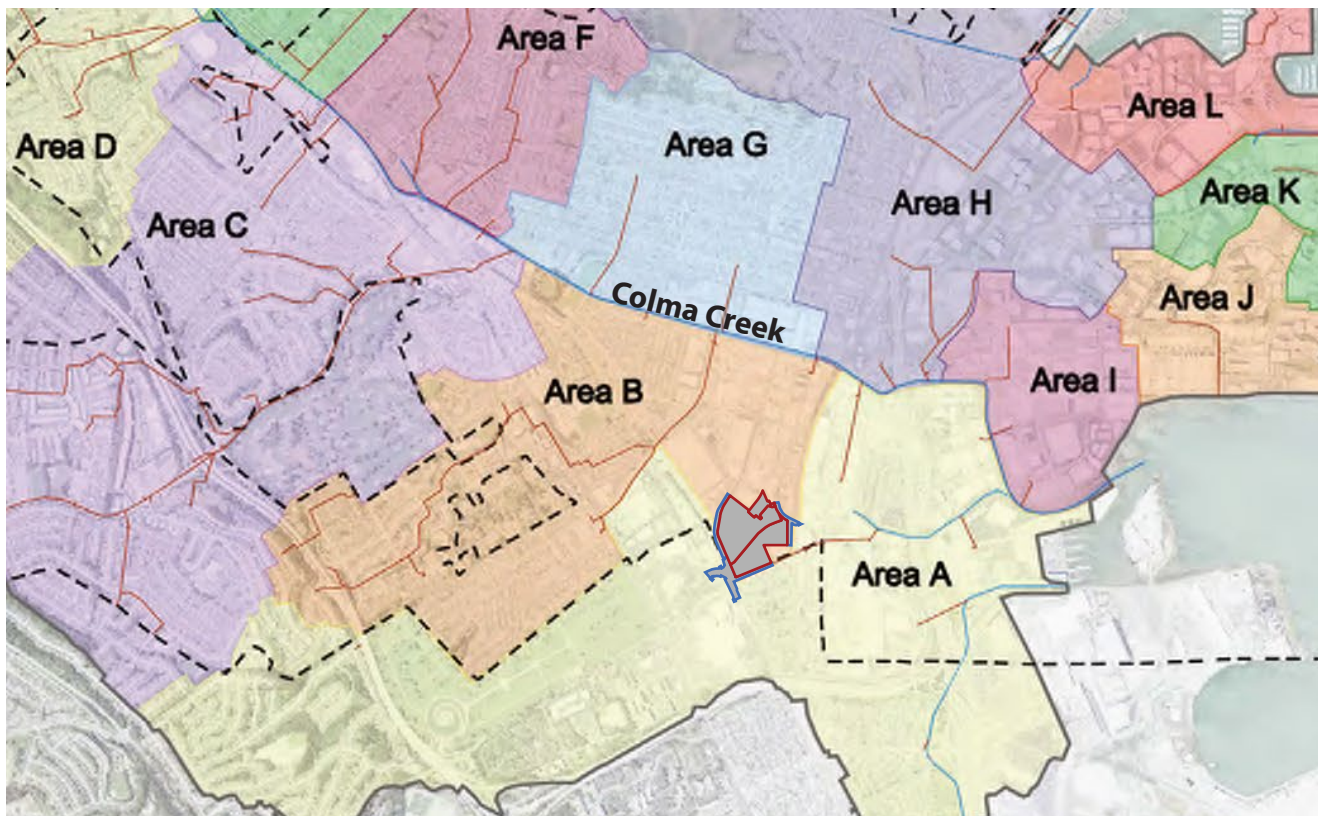
The 2016 South San Francisco Storm Drain Master Plan (SDMP), described in Section 4.9.3.3, p. 4.9-19, divides the City into three regional drainage/tributary watershed areas, based on their location and proximity to Colma Creek: the Northern Region, the Southern Region, and the Lower Region. Drainage areas outside the City are incorporated into the SDMP model due to their impact on drainage systems within the City. Each drainage area is further divided into smaller local subwatersheds. The Northern Region (subwatersheds B through D) and Southern Region (subwatersheds E through G) are relatively steep sloped urban and residential areas located within and along the bottom of the surrounding foothills. The Lower Region (subwatersheds A, and H through L) is relatively flat and includes industrial development areas. As shown in **Figure 4.9-1, p. 4.9-4**, the majority of the project site is located in the Southern Region, Subwatershed B, with the exception of the off-site improvement areas in San Bruno's jurisdiction, which are located in the Lower Region, Subwatershed A. All storm drain systems within the Southern Region subwatersheds discharge to the Colma Creek channel and outlets to San Francisco Bay. The storm drain systems within the Lower Region regional watersheds discharge either to Colma Creek or directly to San Francisco Bay.<sup>9</sup> It is noted that the project site, including the off-site improvement areas in San Bruno's jurisdiction, is located outside of the six watershed areas that comprise San Bruno's storm drain system.<sup>10</sup>

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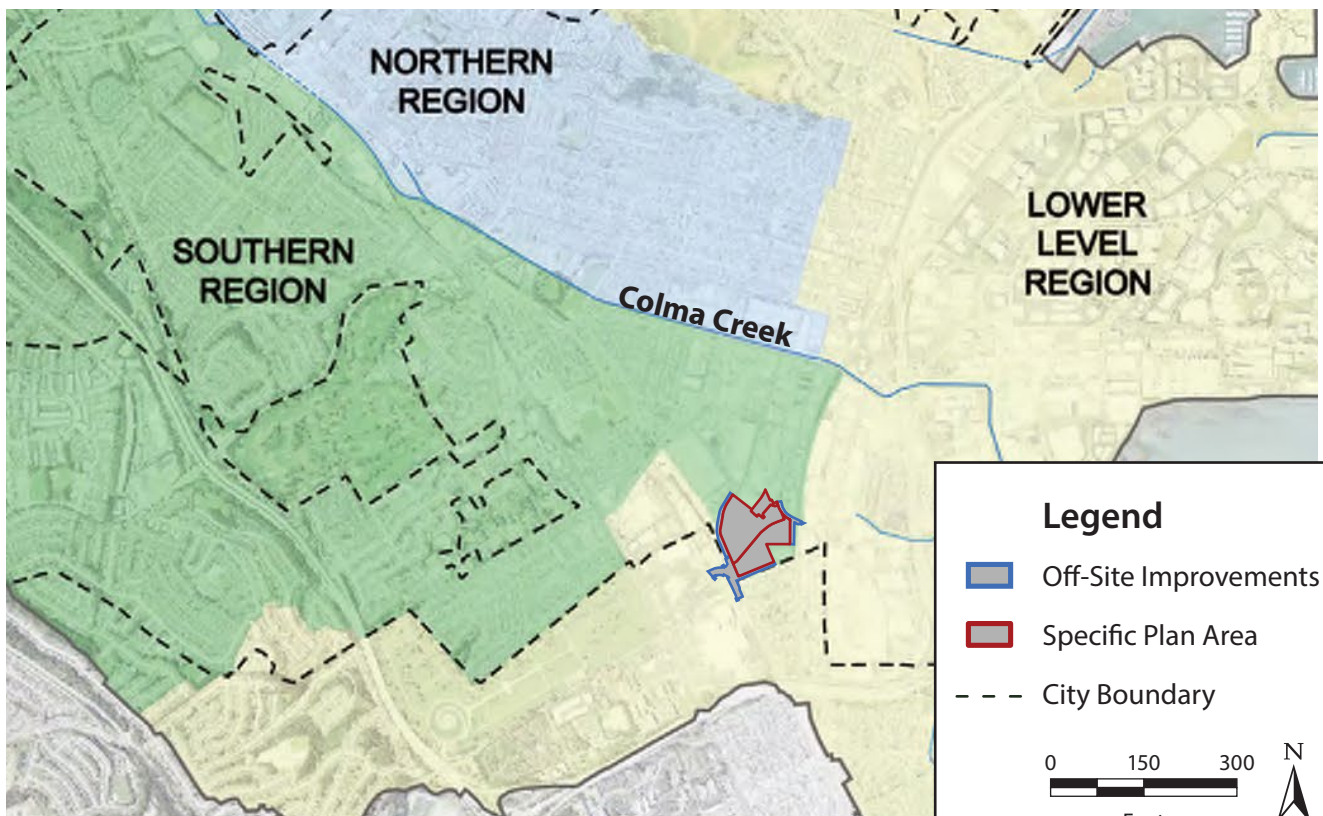
<sup>8</sup> UC Davis Sustainability Indicators Group. 2020. Colma Creek-Frontal San Francisco Bay Estuaries. Available: <https://indicators.ucdavis.edu/water/regions/180500040903>. Visited: October 9, 2020.

<sup>9</sup> Michael Baker International. 2016. South San Francisco Storm Drain Master Plan. February.

<sup>10</sup> City of San Bruno. 2014. Storm Drain Master Plan. June. Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?blobid=24092>. Accessed January 11, 2021.



**Local Watersheds**



**Regional Watersheds**

## Water Quality

Water quality in California is regulated by the U.S. Environmental Protection Agency's National Pollution Discharge Elimination System (NPDES), which controls the discharge of pollutants to water bodies from point and non-point sources. In the San Francisco Bay Area, this program is administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB). The authority of the RWQCB includes permitting of stormwater discharges from municipal storm sewer systems (which includes the existing on-site drainage system), industrial processes and construction sites that disturb areas larger than one acre. The City of South San Francisco (City) is a co-permittee of the San Mateo County Urban Runoff Clean Water Program, which is a coordinated effort by local governments to improve water quality in San Francisco Bay.

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.

The Porter-Cologne Act 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 in surface waters. The Basin Plan specifies beneficial uses that apply to water bodies with potential to be affected by the project, as shown in

**Table 4.9-1.**<sup>11</sup>

**Table 4.9-1. 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	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
EST: ESTUARINE HABITAT	
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. Available: <a href="https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html">https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html</a> . Accessed: October 2, 2020.	

<sup>11</sup> 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. Available: [https://www.waterboards.ca.gov/sanfranciscobay/basin\\_planning.html](https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html). Accessed: October 2, 2020.

The San Francisco Bay RWQCB has listed the Lower and South San Francisco Bays as an impaired water body. Section 303(d) of the federal Clean Water Act requires states make a list of waters that are not attaining water quality standards. The 303(d)-listed impairments for the Lower San Francisco Bay shown in **Table 4.9-2** are based on the 2014/2016 California Integrated Report.<sup>12</sup>

**Table 4.9-2. Water Quality Impairments within the Project Area**

<b>Water Body</b>	<b>Listed Impairments per 2014/2016 303(d) List</b>	<b>Potential Sources</b>	<b>EPA TMDL Report Completion</b>
Colma Creek	Trash	Source Unknown	Est. 2029
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. EPA approved: April 6, 2018. Available:

[https://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2014\\_2016.shtml](https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml). Accessed: October 2, 2020.

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 1800s, 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. Environmental Protection Agency (EPA) approved a Basin Plan amendment incorporating a total maximum daily load (TMDL) for mercury in San Francisco Bay and an implementation plan to achieve the TMDL and became effective on November 7, 2007.

<sup>12</sup> 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](https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml). Accessed: October 2, 2020.

The Lower San Francisco Bay is also designated as impaired for trash. Provision C.10 of the San Francisco Bay Municipal Regional Stormwater Permit (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 4.9-1, p. 4.9-5**). The City is responsible for requiring sections C.10 (trash capture) and C.3 (stormwater treatment) to be met by all qualifying development projects within the City. The City owns and maintains storm drainage infrastructure within the public right-of-way, which discharges to County flood control facilities.<sup>13</sup>

## Groundwater

The California Water Service Company (Cal Water) serves the potable water needs for the portion of the City east of I-280, where the proposed project is located as well as the cities of San Carlos and San Mateo. The Project Area is in the South San Francisco District (SSFD) of the Cal Water service area. Cal Water prepared and adopted a 2020 Urban Water Management Plan,<sup>14</sup> which includes information related to groundwater. Urban Water Management Plans are prepared every five years. In addition, groundwater conditions including groundwater supply are described in the Water Supply Assessment prepared for the project, which is included in **Appendix 4.17-1** of this EIR.<sup>15</sup>

The project site is located within the Westside Groundwater Basin, and the groundwater wells that supply the project site are from the Westside 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.<sup>16</sup>

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.<sup>17</sup> 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.<sup>18</sup>

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

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<sup>13</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

<sup>14</sup> California Water Service. 2021. 2020 Urban Water Management Plan, South San Francisco District. June 2021.

<sup>15</sup> EKI Environment & Water. 2021. Final Draft Water Supply Assessment for the Southline Specific Plan. July.

<sup>16</sup> California Department of Water Resources. 2006. Bulletin 118 Westside Groundwater Basin. January 20. Available: <https://www.smcsustainability.org/download/energy-water/groundwater/2-35.pdf>. Accessed: October 5, 2020.

<sup>17</sup> California Department of Water Resources. 2006. Bulletin 118 Westside Groundwater Basin. January 20. Available: <https://www.smcsustainability.org/download/energy-water/groundwater/2-35.pdf>. Accessed: October 5, 2020.

<sup>18</sup> San Francisco Public Utilities Commission. 2018. 2017 Annual Groundwater Monitoring Report Westside Basin San Francisco and San Mateo Counties California. May. Available: <https://sfwater.org/modules/showdocument.aspx?documentid=10212>. Accessed: October 5, 2020.

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.<sup>19</sup> Groundwater pumping has historically provided up to 50 percent of local water supply in the South Westside Basin for the communities of South San Francisco, San Bruno, and Daly City, 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, Department of Water Resources 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.<sup>20</sup>

Most dissolved constituents in groundwater monitored in general basin groundwater within the Westside Groundwater Basin meet 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.<sup>21</sup> 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.

## Flood Hazards

Flood risks in South San Francisco originate from three sources: high tides and wind generated waves from San Francisco Bay; Colma Creek and associated tributary sloughs, including high tides coinciding with high creek flows which exacerbate flood risks; and the San Bruno Channel, which discharges into San Francisco Bay independently of Colma Creek. The City of South San Francisco is highly urbanized with relatively high runoff generation rates, a condition that increases the potential for flood condition in periods of heavy rainfall.

Periodic flooding problems exist along Colma Creek. The San Mateo County Flood Control District was formed in 1959, with one of its key objectives to address the recurring flooding problems along Colma Creek. Subsequent changes along Colma Creek were designed to protect against a 50-year storm event, which has a 2 percent probability of occurring in any given year.<sup>22</sup> At the confluence of Colma Creek and the San Francisco Bay, excess floodwaters either overflow on land near the South San Francisco/San Bruno Water Quality Control Plant from Colma Creek due to channel constrictions, or are restricted behind overland flow barriers such as the Caltrain railroad tracks and U.S. 101. However, if channel constrictions are removed by future improvement projects, there is

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<sup>19</sup> San Francisco Public Utilities Commission 2016. 2015 Urban Water Management Plan, City and County of San Francisco District. June.

<sup>20</sup> WRIME 2012. South Westside Basin Groundwater Management Plan, City and County of San Francisco, prepared by the San Francisco Public Utilities Commission, City of San Bruno, Daly City, and Cal Water South San Francisco District, dated July 2012.

<sup>21</sup> San Francisco Public Utilities Commission. 2018. 2017 Annual Groundwater Monitoring Report Westside Basin San Francisco and San Mateo Counties California. May. Available: <https://sfwater.org/modules/showdocument.aspx?documentid=10212>. Accessed: October 5, 2020.

<sup>22</sup> Hassell 2020. Colma Creek Adaptation Planning Final Design Report N0004. July 8.

sufficient flow capacity in Colma Creek between Utah Avenue and San Francisco Bay to accommodate the full estimated 100-year flood discharge without overtopping the creek banks.<sup>23</sup>

A flood insurance rate map (FIRM) is an official Federal Emergency Management Agency (FEMA) prepared map of a community. It is used to delineate both the special flood hazard areas and the flood-risk premium zones that are applicable to the community. Areas of the City of South San Francisco have FIRM maps completed in 2012. The project area's flood zone was updated in 2019 and indicates that the project site is not located within a 100-year flood zone, as shown in **Figure 4.9-2, p. 4.9-10**. However, the areas adjacent to the Bay are currently unresolved and continue to use 2012 FEMA flood data.

A tsunami is a series of ocean waves caused by displacement of a large volume of water, typically as a result of an undersea earthquake or landslide. At the shoreline, tsunami waves may range in height from a few inches to more than 30 feet.<sup>24</sup> As depicted on the Tsunami Inundation Map for Emergency Planning prepared by the California Emergency Management Agency and California Geological Survey, some areas in the City located immediately adjacent to the Bay are within a tsunami inundation area. However, the project site is not within a tsunami inundation area.<sup>25</sup>

Seiche occurs in an enclosed or partially enclosed body of water, such as a lake or reservoir. San Francisco Bay is a large, open body of water with no immediate risk of seiche. No other larger bodies of water are near the project site. There would be minimal to no risk of inundation from a seiche event in the project vicinity.

Dam failures are catastrophic events characterized by the sudden, rapid, and uncontrolled release of impounded water. Thirteen dams in San Mateo County have been identified as large enough to endanger lives and property in the event of a major uncontrolled release or catastrophic failure. According to dam failure inundation maps, the project site is not within a dam inundation area. The hazards of tidal flooding in areas in close proximity to San Francisco Bay are generally managed by a series of levees. The levees were constructed for salt evaporation ponds in the southeast portion of the County and for flood protection in the north and central portions of the County. Generally, these levees would not withstand the flood intensities of the 100-year base flood. There would be no risk of inundation from a levee failure in the project vicinity.<sup>26</sup>

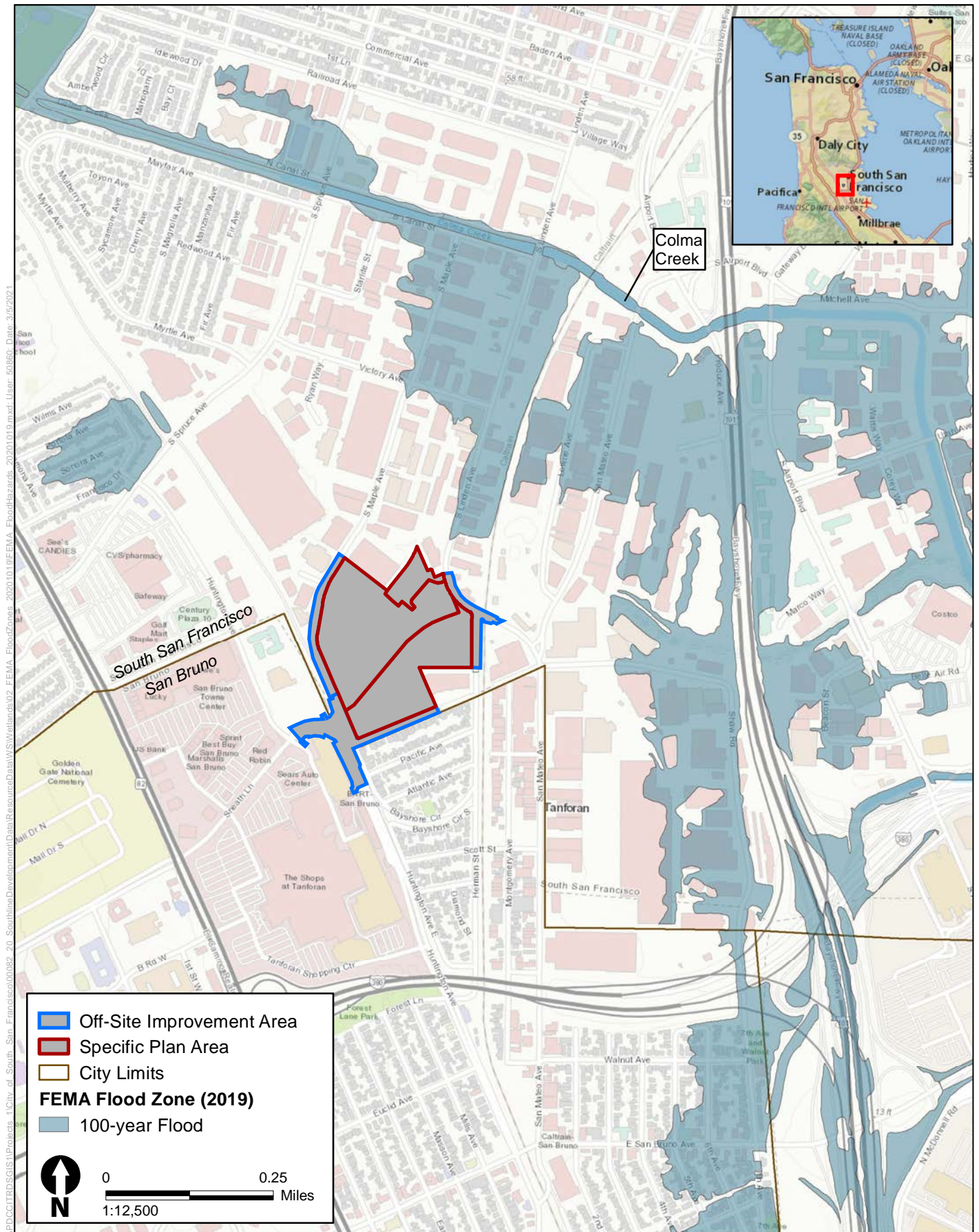
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<sup>23</sup> Schaaf & Wheeler Consulting Civil Engineers. 2012. City of South San Francisco South San Francisco/San Bruno Water Quality Control Plan Flood Protection Study. June.

<sup>24</sup> City and County of San Francisco. 2016. *Emergency Response Plan, an Element of the CCSF Emergency Management Program, Tsunami Annex*. August. Available: <http://sfdem.org/sites/default/files/Documents/CCSF%20Tsunami%20Annex%20Public%20Version%2020160907.pdf>. Accessed: February 3, 2021.

<sup>25</sup> California Emergency Management Agency (CalEMA), the University of Southern California (USC), and the California Geological Survey (CGS). 2009. *Tsunami Inundation Map for Emergency Planning*. State of California, City and County of San Francisco. San Francisco South Quadrangle (San Francisco Bay). June 15.

<sup>26</sup> County of San Mateo Sheriff's Office, Homeland Security Division, and Office of Emergency Services. 2015. County of San Mateo Hazard Vulnerability Assessment Appendix to The Emergency Operations Plan. January 2. Available: <https://hsd.smcsheriff.com/sites/default/files/downloadables/2%20-%20Hazard%20Vulnerability%20Assessment.pdf#:~:text=Dam%20failure%20inundation%20area%20and%20exposure%20of%20existing,area%2C%20versus%201%2C132%20acres%20%280.4%25%29%20of%20non-urban%20land>. Accessed: February 3, 2021.



**Figure 4.9-2**  
**FEMA Flood Zones within the Project Area**

## 4.9.2.2 Local Setting

### Project Site

#### Surface Water

The project site is comprised of the approximately 26.5-acre Specific Plan area and approximately 6.4 acres of off-site improvement areas. The Specific Plan area is located at the intersection of South Maple Avenue and Tanforan Avenue adjacent to the City of San Bruno. The off-site improvement areas are located within the cities of South San Francisco and San Bruno and within BART jurisdiction, generally adjacent to the Specific Plan area to the west, south and east.

As shown in **Figure 4.9-2, p. 4.9-9**, Colma Creek and Lower San Francisco Bay are less than 1 mile north and 1 mile east of the project site, respectively. As described in Section 4.9.2.1, p. 4.9-3, the project site is located on the boundary between the Southern Region and Lower Region South San Francisco drainage watersheds, within the larger Colma Creek Watershed.

Approximately 94 percent of the total surface area of the Specific Plan area consists of existing impervious surfaces.<sup>27</sup> Impervious surfaces on the Specific Plan area include existing office, industrial, warehouse, and storage buildings and associated surface parking lots. The Specific Plan area contains some ornamental landscape and approximately 162 trees. The off-site improvement areas consist of roadways, sidewalks, and utility easements and are nearly entirely impervious, although approximately 19 trees and other landscaping is present.

Generally, the Specific Plan area is flat with a downward slope to the east. On-site storm drainage systems convey storm runoff from each parcel to the adjacent public roadways. The south portion of the Specific Plan area drains to a 42-inch reinforced concrete pipe (RCP) located in Tanforan Avenue. The northwest portion of the Specific Plan drains to 4-foot by 4-foot box culvert located in South Maple Avenue. Parcels located on the east drain north via the roadway gutter in both Dollar Avenue and South Linden Avenue, as there is no public storm drain infrastructure in these two roadways. The gutter flow in South Linden Avenue drains to a 7-foot by 5.5-foot box culvert that crosses Linden Avenue north of the site. There is one parcel on Dollar Avenue assumed to drain south to Tanforan. Drainage patterns on the off-site improvement areas vary depending on the location.

The 42-inch RCP located within Tanforan Avenue has been identified by the 2016 South San Francisco SDMP as a segment to be improved by installing a parallel 66-inch pipe. Additional downstream segments are also identified for capacity improvements by the South San Francisco SDMP. These recommended improvements are due to anticipated demands from General Plan build-out within the Lower Region Watershed, separate from the proposed project. The proposed project would not be responsible for installing these identified SDMP improvements directly, but the design and implementation of the project's underground utilities would take into account the SDMP improvements and as such would not conflict with implementation of these SDMP improvements. The proposed project would be required through conditions of approval to coordinate with the City of South San Francisco to preserve existing space within Tanforan Avenue for the possible installation of the 66-inch pipe as part of a future capital improvement project.<sup>28</sup>

<sup>27</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20, 2021.

<sup>28</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

## Groundwater

Depth to groundwater on the project site ranges from approximately 8 to 27 feet below ground surface (bgs).<sup>29</sup> Historic high groundwater levels are not currently mapped for the project site. However, recent groundwater data for monitoring wells located within 500 feet of the project site indicated groundwater levels of 5 to 16.5 feet below the existing grades. Groundwater levels may vary due to seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors.<sup>30</sup>

## Water Quality

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.

There are current or formerly contaminated sites located near or within the project site, as discussed in Section 4.8, *Hazards and Hazardous Materials*, that could impact water quality. Maryatt Industries located at 290 South Maple Avenue formerly conducted dry cleaning activities, which included the use of tetrachloroethene (PCE) solvents. Concentrations of PCE and its breakdown products were identified in groundwater sampled from properties near the project site in excess of the Regional Water Quality Control Board (Regional Water Board) environmental screening levels. Other solvent releases, volatile organic compounds (VOCs), and naphthalene were also measured near the project site. Groundwater quality in the project area may also be degraded due to naturally occurring metals such as selenium and arsenic, as well as industrial activities of the surrounding area.<sup>31</sup> Groundwater also contained metals including barium, cadmium, cobalt, thallium, and vanadium. However, groundwater samples were unfiltered, which may overestimate metal concentrations. It is unlikely that shallow groundwater beneath the project area would be used as a source of drinking water.<sup>32</sup>

## Flooding

As shown in **Figure 4.9-2, p. 4.9-9**, 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 Flood Insurance Rate Maps (FIRMs) as above the 500-year flood level.<sup>33</sup> The eastern edge of the project site is approximately 1 mile inland from the San Francisco Bay shoreline and is approximately 17 to 33.25

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<sup>29</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>30</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>31</sup> ATC Group Services LLC. 2019. Phase I Environmental Site Assessment of 325 Maple Ave/325 South Maple Avenue South San Francisco, California ATC PROJECT NO. NPGS19033. October 31.

<sup>32</sup> ATC Group Service s LLC. 2018. Limited Phase II Environmental Site Assessment Report 240 Dollar Avenue South San Francisco. June 7.

<sup>33</sup> Federal Emergency Management Agency. 2019. National Flood Hazard Layer FIRMette, Map Number 06081C0043F, dated April 5, 2019. Available: [https://p4.msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl\\_print/agolprint\\_gpserver/j25a3d93b5d5e4b8d9606e99a93f2e318/scratch/FIRMETTE\\_353f0870-17c3-44ac-bc0e-9d026be115f2.pdf](https://p4.msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl_print/agolprint_gpserver/j25a3d93b5d5e4b8d9606e99a93f2e318/scratch/FIRMETTE_353f0870-17c3-44ac-bc0e-9d026be115f2.pdf).

feet (NAVD 88) above MSL. Therefore, the potential for inundation due to tsunami or seiche is considered low.<sup>34, 35</sup>

## Phase 1 Site

The discussion above regarding project site surface water, groundwater, water quality, and flooding characteristics is also applicable to the Phase 1 site. The Phase 1 site is comprised of approximately 16-acres within the Specific Plan area, in addition to the majority of the off-site improvement areas. As discussed above, the Specific Plan area is currently developed with office and industrial buildings and surface parking lots. This portion of the Phase 1 site drains south to a 42-inch RCP located in Tanforan Avenue and east to a roadway gutter in Dollar Avenue and South Linden Avenue. The roadway drains to a 7-foot by 5.5-foot box culvert that crosses Linden Avenue north of the Phase 1 site. The Phase 1 off-site improvement areas consist of rights-of-way and easements developed with roadway, sidewalk, and utility improvements. Drainage patterns on the off-site improvement areas vary depending on the location.

Generally, the Phase 1 site is flat with a downward slope to the east. The Phase 1 site is located within the Westside Groundwater Basin. Water quality on the Phase 1 site is similar to the water quality discussed above for the overall project site. The Phase 1 site is outside of the 100-year floodplain and within FEMA Zone X, an area of minimal flood hazard.

## 4.9.3 Regulatory Framework

This section provides a summary of the hydrology and water quality plans and policies of federal, state, regional, and local agencies that have policy and regulatory control over the project site.

### 4.9.3.1 Federal

#### Clean Water Act

The federal Clean Water Act (CWA) of 1972 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.

At the federal level, the Clean Water Act is administered by the U.S. Environmental Protection Agency (EPA). The EPA has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the NPDES program (discussed below), to the State Water Resources Control Board (State Water Board or SWRCB) and the Regional Water Quality Control Boards (Regional Water Boards or RWQCBs). 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.

<sup>34</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>35</sup> California Emergency Management Agency (CalEMA), the University of Southern California (USC), and the California Geological Survey (CGS). 2009. *Tsunamic Inundation Map for Emergency Planning*. State of California, City and County of San Francisco. San Francisco South Quadrangle (San Francisco Bay). June 15.

The State of California has developed a number of water quality laws, rules and regulations, in part to assist in the implementation of the Clean Water Act and related federally mandated water quality requirements. In many cases, the federal requirements set minimum standards and policies and the laws, rules, and regulations adopted by the state and regional boards exceed the federal requirements.

**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 TMDLs. TMDLs are established at the level necessary to implement the applicable water quality standards. Federal regulations require that an implementation plan be developed along with the TMDL and Sections 303(d), and 303(e), and that approved TMDLs be incorporated into basin plans. EPA requires 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. 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).

## National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 restrict certain types of development on floodplains and to provide for a National Flood Insurance Program (NFIP). The NFIP is a federal program administered by the Flood Insurance Administration of FEMA.

FEMA is responsible for determining, based on USACE studies and in coordination with states and local governments, flood elevations and floodplain boundaries. FEMA is also responsible for identifying flood hazard areas and publishes a boundary map of flood hazards, including the 100-year floodplain, in those areas in connection with the National Flood Insurance Program. 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. Floodplain mapping is an ongoing process in the Bay Area and flood maps must be regularly updated for both major rivers and tributaries as land uses and development patterns change.

#### **4.9.3.2 State and Regional**

##### **Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the State Water Board and divided the state into nine Regional Water Boards, which are responsible for coordination and control of water quality within their respective jurisdictional boundaries. 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 the RWQCBs to establish water quality objectives while acknowledging that water quality may be changed to some degree without unreasonably affecting beneficial uses. Designated beneficial uses, together with the corresponding water quality objectives, also constitute water quality standards under the federal Clean Water Act. The Act also 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.

##### **Waste Discharge Requirements Program**

Waste discharges that can be exempted from the California Code of Regulations (CCR) requirements are issued waste discharge requirements (WDRs) and are regulated by the WDR Program. Typical discharge types include domestic or municipal wastewater, food processing related wastewater, and industrial wastewater.

State regulations addressing the treatment, storage, processing, or disposal of waste are contained in Title 27, CCR, section 20005 et seq. Discharges that qualify for exemption from Title 27 must be consistent with the exemptions provided in Title 27 section 20090.

##### **Sustainable Groundwater Management Act**

The Sustainable Groundwater Management Act of 2014 (SGMA) is a comprehensive three-bill package that Governor Jerry Brown signed into California state law in September 2014. The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention only if necessary, to protect the resource. The plan is intended to ensure a reliable groundwater water supply for California for years to come. SGMA requires the formation of local Groundwater Sustainability Agencies (GSA), which are required to adopt groundwater sustainability plans (GSPs) to manage the sustainability of groundwater basins. GSAs for all high- and medium-priority basins, as identified by the Department of Water Resources (DWR), must adopt a GSP, or submit an alternative to a GSP. SGMA also requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins

into balanced levels of pumping and recharge. GSPs for high- and medium-priority basins are due to DWR by January 31, 2022, however GSPs for critically over drafted high- and medium-priority basins were due to DWR by January 31, 2020. The project overlies the Westside Groundwater Basin, which is designated as a very low-priority basin and not subject to SGMA. The voluntary South Westside Basin Groundwater Management Plan provides a framework for regional groundwater management in the South Westside Basin that sustains the beneficial use of the groundwater resource.<sup>36</sup> More information regarding groundwater in relation to water supply is provided in Section 4.17, *Utilities and Service Systems*, of this EIR and is described in the Water Supply Assessment prepared for the project, which is included in **Appendix 4.17-1** of this EIR.<sup>37</sup>

## NPDES General Permit for Construction Activities

Most construction activities that disturb one 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 one 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 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.

## San Francisco Bay Water Quality Control Plan (Basin Plan)

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.<sup>38</sup> The project site lies within the jurisdiction of the San Francisco Bay Regional Water Board. The Basin Plan was last updated in 2017.<sup>39</sup> Pursuant to the Clean Water Act NPDES program, the RWQCB issues permits for point source discharges that must meet the water quality objectives and must protect the beneficial uses defined in the Basin Plan. Beneficial uses, water quality objectives, and

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<sup>36</sup> WRIME 2012. South Westside Basin Groundwater Management Plan, City and County of San Francisco, prepared by the San Francisco Public Utilities Commission, City of San Bruno, Daly City, and Cal Water South San Francisco District, dated July 2012.

<sup>37</sup> EKI Environment & Water. 2021. Final Draft Water Supply Assessment for the Southline Specific Plan. July.

<sup>38</sup> 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. Available: [https://www.waterboards.ca.gov/sanfranciscobay/basin\\_planning.html](https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html). Accessed: October 2, 2020.

<sup>39</sup> San Francisco Bay Regional Water Quality Control Board. 2017. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. Available: [https://www.waterboards.ca.gov/sanfranciscobay/basin\\_planning.html](https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html). Accessed: October 2, 2020.

Section 303(d)-listed impairments are described for the project area are described in Section 4.9.2.1, p. 4.9-3.

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.

### **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. San Mateo County 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 permit continues in full force and effect until a new permit is issued or the Regional Water Board rescinds the permit. Only those dischargers authorized to discharge under the expiring permit are covered by the continued 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. 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. Regardless of size, all projects require construction-phase BMPs, post-construction site design measures to maximize infiltration in pervious areas, and post-construction source control measures to help keep pollutants out of stormwater, as appropriate.

### **Stormwater Management Plan / Provision C.3 Requirements**

Provision C.3 of the 2015 San Francisco Bay MRP requires new development and redevelopment source control, site design, and stormwater treatment measures to address pollutant discharges in stormwater runoff through low-impact development (LID) techniques, including infiltration and biotreatment. C.3 requirements include LID stormwater controls such as site design measures, source control measures, and stormwater treatment. 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.

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.

### **San Mateo Countywide Water Pollution Prevention Program**

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 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 project site is outside the limits of hydromodification areas.

### **MRP Regulations for Qualifying Special Projects**

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,” which include certain land development characterized as smart growth, high density, or transit-oriented development, can either reduce existing impervious surfaces or create less accessory impervious areas and automobile-related pollutant impacts. Special Projects are allowed to use specific types of non-LID treatment measures to treat a certain percentage of the site’s runoff. These Special Projects may receive LID treatment reduction credits in recognition that density and space limitations may make 100 percent LID treatment infeasible. If approved by the Water Board, these Special Projects may be allowed credits against otherwise applicable treatment requirements by installing tree-box-type high flow-rate bio-filters or vault-based high flow-rate media filters. Due to the proximity to transit stations, this project is anticipated to qualify as a Special Project based on smart growth, high density, and transit-oriented development and may be eligible to receive LID credits for stormwater treatment.

### **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 (AB) 3030 (codified in CWC Section 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, and 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.

### **San Mateo County Flood Control and Sea Level Rise Resiliency District**

The Flood and Sea Level Rise Resiliency District coordinates cross-jurisdictional collaborations to manage impending flooding threats. The District initiates new countywide efforts to address sea level rise, flooding, coastal erosion, and large-scale stormwater infrastructure improvements through integrated regional planning, project implementation, and long-term maintenance. Comprised of the 20 incorporated cities, C/CAG, and the County of San Mateo, the purpose of the District is to create a unified agency to cost-effectively implement resilient infrastructure to face flood challenges. The Flood and Sea Level Rise Resiliency District was created by modifying the existing Flood Control District through state legislation, Assembly Bill 825 (2019-2020).

#### **4.9.3.3 Local**

##### **City of South San Francisco General Plan**

The City's current General Plan, adopted in 1999, includes goals and policies associated with hydrology and water quality.<sup>40</sup> The City General Plan has identified policies from Open Space 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 management, and minimizing flooding. The City's General Plan includes the following goals and policies associated with hydrology and water quality:

##### **Open Space and Conservation Element: Water Quality**

- **Policy 7.2-G-1:** Comply with the San Francisco Bay Regional Water Quality Control Board regulations and standards to maintain and improve the quality of both surface water and groundwater resources.
- **Policy 7.2-G-2:** Enhance the quality of surface water resources and prevent their contamination.
- **Policy 7.2-G-3:** Discourage the use of insecticides, herbicides, or toxic chemical substances within the city.
- **Policy 7.2-I-1:** Continue working with the San Francisco Bay RWQCB in the implementation of the NPDES and continue participation in STOPPP for the protection of surface water and groundwater quality.

##### **Health and Safety Element: Flooding**

- **Policy 8.2-G-1:** Minimize the risk to life and property from flooding in South San Francisco.
- **Policy 8.2-I-1:** Continue working with the Regional Water Quality Control Board (RWQCB) in the implementation of the San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP).

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<sup>40</sup> City of South San Francisco. 1999. *City of South San Francisco General Plan*. Available: <https://www.ssf.net/departments/economic-community-development/planning-division/general-plan#:~:text=The%20current%20General%20Plan%2C%20adopted%20by%20the%20City,that%20will%20allow%20this%20vision%20to%20be%20accomplished%3B>. Accessed: October 11, 2020.

- **Policy 8.2-I-2:** Use the City’s development review process to ensure that proposed development subject to the 100-year flood provides adequate protection from flood hazards, in areas identified in Figure 8-3.

## City of South San Francisco Municipal Code

Title 14: Water and Sewage: Title 14 includes requirements related to stormwater management and discharge control, water quality control, and sewer lateral construction, maintenance and inspection.

## South San Francisco Green Infrastructure Plan

The 2015 San Francisco Bay MRP requires the implementation of a comprehensive program of stormwater control measures and actions designed to limit contributions of urban runoff pollutants to San Francisco Bay. MRP Provision C.3.j.i requires the City of South San Francisco to prepare a Green Infrastructure Plan to be submitted with its Annual Report to the RWQCB. The City’s 2019 Green Infrastructure Plan is intended to provide the methods by which the TMDL waste load allocations for urban runoff to the Bay will be met, and to set goals for reducing the adverse water quality impacts of urbanization and urban runoff on receiving waters. The Green Infrastructure Plan serves as an implementation guide to describe how the City will shift from conventional “collect and convey” storm drain infrastructure management to sustainable stormwater management, and focus on retrofitting existing gray infrastructure to include green infrastructure designs into new and existing public spaces, including streets, parks, and parking lots. The Green Infrastructure Plan includes general design and construction guidelines, standard specifications and details for including green infrastructure components in projects throughout the City. These guidelines and specifications are intended to address a variety of project types in the City right-of-way based on the land use and transportation characteristics of the site, to allow projects to provide a range of functions and benefits, such as stormwater management, bicycle and pedestrian friendly streets, public green space, and street trees.

## South San Francisco Storm Drain Master Plan

The 2016 South San Francisco SDMP provides an analysis of existing storm drain facilities and trash capture opportunities within the jurisdiction of the City. As described in Section 4.9.2.1, p. 4.9-3, the SDMP divides the City into different drainage areas, named according to their locations and proximity to Colma Creek. Hydrology and hydraulic analyses were completed for each drainage area. Drainage areas outside the City, including Lower Region Subwatershed A (in which the off-site improvement areas in San Bruno are located), are incorporated into the model due to their impact on drainage systems within the City. The goal of the SDMP is to provide comprehensive long-range planning for the implementation and development of drainage facility improvements, including storm drains and trash capture devices, determine the cost of implementing such facilities, discuss funding priorities, and provide an implementation schedule of the improvements within the City. The SDMP notes that any improvements outside the City boundary should be discussed with neighboring cities.

The SDMP does not identify any recommended facility improvements for infrastructure serving the Specific Plan area within Southern Region Subwatershed B. However, the Storm Drain Master Plan does recommend improvements within Tanforan Avenue to infrastructure serving the adjacent Lower Region Subwatershed A. The recommended improvements call for the future installation of a

parallel 66-inch pipe in addition to the existing 42-inch reinforced concrete pipe located within Tanforan Avenue. Additional downstream segments are also identified for capacity improvements. These recommended improvements are due to anticipated demands from General Plan build-out within the Lower Region Watershed. As described above, the proposed project would not be responsible for installing these identified SDMP improvements directly, but the design and implementation of the project's underground utilities would take into account the SDMP improvements and as such would not conflict with implementation of these SDMP improvements. The proposed project would be required through conditions of approval to coordinate with the City to preserve existing space within Tanforan Avenue for the possible installation of the 66-inch pipe as part of a future capital improvement project, which, if installed, would be a separate project from the proposed project.<sup>41</sup>

## San Bruno Plans and Policies

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within San Bruno in areas that are completely developed, consisting of rights-of-way and easements developed with roadway, sidewalk, and utility improvements; the project would not develop any new structures or new land uses in San Bruno. The specific off-site improvements that are wholly or partially located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. Development of these improvements would be subject to applicable San Bruno plans and policies.

This section identifies and evaluates the proposed project's consistency with relevant policies from the San Bruno General Plan related to hydrology and water quality. For additional discussion of the proposed project's consistency with San Bruno land use plans and policies, refer to Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*, of this EIR. For additional discussion of the proposed project's consistency with San Bruno plans and policies related to storm drain infrastructure, including the City's Green Infrastructure Plan and Storm Drain Master Plan, see Section 4.17, *Utilities and Service Systems*, of this EIR.

### San Bruno General Plan

The San Bruno General Plan, adopted in 2009, includes goals and policies associated with hydrology and water quality.<sup>42</sup> The 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 reducing pollution within surface water including compliance with relevant regulatory water quality standards, minimizing stormwater runoff, stormwater

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<sup>41</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

<sup>42</sup> City of San Bruno. 2009. *San Bruno General Plan*. Available: [https://www.sanbruno.ca.gov/gov/city\\_departments/commdev/planning\\_division/long\\_range\\_planning/general\\_plan.htm#:~:text=The%20San%20Bruno%20General%20Plan%20outlines%20a%20vision,decisions%20on%20private%20development%20proposals%20and%20public%20facilities](https://www.sanbruno.ca.gov/gov/city_departments/commdev/planning_division/long_range_planning/general_plan.htm#:~:text=The%20San%20Bruno%20General%20Plan%20outlines%20a%20vision,decisions%20on%20private%20development%20proposals%20and%20public%20facilities). Accessed: November 11, 2020.

management, maximizing groundwater recharge, and minimizing flooding. The City's General Plan includes the following goals and policies associated with hydrology and water quality:

***Environmental Resources and Conservation Element***

- **ERC-D:** Reduce pollution levels within the surface water that San Bruno discharges into the San Mateo County Flood Control District, then into San Francisco Bay.
- **ERC-19:** Regulate new development—specifically industrial uses—as well as construction and demolition practices to minimize pollutant and sediment concentrations in receiving waters and ensure waterbodies within San Bruno and surface water discharged into San Francisco Bay meets or exceeds relevant regulatory water quality standards.
- **ERC-20:** Require implementation of Best Management Practices to reduce accumulation of non-point source pollutants in the drainage system originating from streets, parking lots, residential areas, businesses, and industrial operations.
- **ERC-23:** Regulate new development to minimize stormwater runoff rates and volumes generated by impervious surfaces, and maximize recharge of local groundwater aquifers when feasible. Utilize the recommendations provided in the Bay Area Stormwater Management Agency's *Start at the Source Design Guidance Manual for Stormwater Quality Protection*.
- **ERC-24:** Require that new development incorporate features into site drainage plans that reduce impermeable surface area and surface runoff volumes.

***Health and Safety Element***

- **HS-B:** Reduce the potential for damage from geologic hazards through appropriate site design and erosion control.
- **HS-D:** Protect sites subject to flooding hazards by implementing storm drainage improvements, and by requiring building design and engineering that meets or exceeds known flood risk requirements.
- **HS-4:** Prevent soil erosion by retaining and replanting vegetation, and by siting development to minimize grading and land form alteration.
- **HS-5:** Require preparation of a drainage and erosion control plan for land alteration and vegetation removal on sites greater than 10,000 sq. ft. in size.
- **HS-13:** With cooperation from the San Mateo County Flood Control District, continue maintenance, early warning, and clean up activities for storm drains throughout San Bruno. Upgrade or replace storm drains where needed to reduce potential flooding, particularly in the neighborhoods east of El Camino Real.
- **HS-17:** Require upgrade of the City's storm drain infrastructure proportionate with new development's fair share of demand. Require that stormwater management capacity and infrastructure are in place prior to occupancy of new development.
- **HS-18:** Require developers to implement erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity, and protect water quality.
- **HS-22:** Require that construction-related grading and other activities comply with the Association of Bay Area Governments' (ABAG) Manual of Standards for Erosion and Sediment

Control Measures and with the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook for Construction.

## 4.9.4 Impacts and Mitigation Measures

This section describes the impact analysis related to hydrology and water quality for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

### 4.9.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant hydrology and water quality impact if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impeded sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - Result in substantial erosion or siltation on- or off-site;
  - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
  - 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
  - Impede or redirect floodflows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

### 4.9.4.2 Approach to Analysis

All project elements were analyzed by comparing baseline conditions, as described in Section 4.9.2, *Environmental Setting*, above, 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 and operation related impacts are identified and evaluated based on the physical characteristics of the project and Phase 1 and the magnitude, intensity, location, and duration of activities. Compliance with existing laws, regulations, and policies, including the City's standard conditions of approval, are assumed to be part of the baseline setting against which the project's incremental impacts are assessed.

- **Surface Water Hydrology.** The surface water hydrology impact analysis considers changes in impervious surfaces and drainage patterns. Information on the change in impervious surface, runoff quantities, and drainage patterns was provided by the Storm Drainage Technical Study.<sup>43</sup>
- **Groundwater Hydrology.** Potential impacts on groundwater supply and recharge are analyzed using information from publicly available publications and site-specific technical reports, including the Design-Level Geotechnical Investigation .<sup>44</sup> The potential impacts associated with construction dewatering are evaluated.
- **Surface and Groundwater Quality.** Impacts on surface water and groundwater quality are 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 Phase I and Phase II ESAs.<sup>45,46</sup> Additional information on hazardous materials with potential to affect the project is provided in Section 4.8, *Hazards and Hazardous Materials*, of this EIR. These impacts are 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 uses FEMA mapping<sup>47</sup> to determine the existing flood zone and information from the Storm Drainage Technical Study regarding changes in the drainage system and layout that may affect flooding risk.

### Buildout Scenario Studied (Office Scenario and Life Sciences Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses the buildout scenario that represents the “worst-case” scenario for the resources area being analyzed. The “worst-case” scenario is the scenario with the greatest potential to result in significant impacts.

A project can introduce hydrology and water quality impacts both directly (e.g., through the increase of impervious surface cover) and indirectly (e.g., through introduced pollutants from automobile use). Both the Office Scenario and the Life Sciences Scenario would have the potential to generate direct and indirect hydrology and water quality impacts. Impervious surfaces associated with the

<sup>43</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

<sup>44</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>45</sup> ATC Group Services LLC. 2019. Phase I Environmental Site Assessment of 325 Maple Ave/325 South Maple Avenue South San Francisco, California ATC PROJECT NO. NPGS19033. October 31.

<sup>46</sup> ATC Group Services LLC. 2018. Limited Phase II Environmental Site Assessment Report 240 Dollar Avenue South San Francisco. June 7.

<sup>47</sup> Federal Emergency Management Agency. 2019. National Flood Hazard Layer FIRMette, Map Number 06081C0043F, dated April 5, 2019. Available: [https://p4.msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl\\_print/agolprint\\_gpserver/j25a3d93b5d5e4b8d9606e99a93f2e318/scratch/FIRMETTE\\_353f0870-17c3-44ac-bc0e-9d026be115f2.pdf](https://p4.msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl_print/agolprint_gpserver/j25a3d93b5d5e4b8d9606e99a93f2e318/scratch/FIRMETTE_353f0870-17c3-44ac-bc0e-9d026be115f2.pdf).

project would convey water and mobilize potential contaminated stormwater to the City's stormwater system and into receiving surface waters. While the two potential buildout scenarios are similar in building footprint and lot coverage, when considering both building and hardscape coverage, the Life Sciences Scenario would have more impervious surface area (893,499 square feet compared to 897,691 square feet), and would therefore result in greater surface runoff volumes and velocities. As such, the surface water hydrology analysis in the Storm Drainage Technical Study is based on the Life Sciences Scenario. With respect to groundwater, although both scenarios would have the same maximum depth of excavation, the Office Scenario would result in a greater excavation volume than the Life Sciences Scenario (688,400 cubic yards compared to 353,700 cubic yards), and would therefore require more dewatering. Therefore, with respect to surface water impacts, the Life Sciences Scenario has a greater potential to result in significant impacts and is analyzed as the "worst-case" scenario, but with respect to groundwater impacts, the Office Scenario has a greater potential to result in significant impacts and is analyzed as the "worst-case" scenario.

This analysis assumes implementation of the proposed storm drain facilities shown in **Figure 4.17-3** in Section 4.17, *Utilities and Service Systems*, and described in Sections 3.6.2.11 and 3.6.3.5 in Chapter 3, *Project Description*, of this EIR. This analysis also assumes implementation of the recommendations incorporated in the Geotechnical Investigation,<sup>48</sup> which would be required as conditions of approval, as further described in Section 3.6.2.13 in Chapter 3, *Project Description*, of this EIR. For purposes of the Phase 1 analysis, the stormwater runoff analysis considered a worst-case scenario in which all existing impervious area remains in place within the future phase areas of the

Specific Plan area during construction of Phase 1. The analysis assumes that all existing uses within the future phase areas would be demolished during Phase 1 to the foundation level only, so that soils within the future phase areas would not remain exposed during Phase 1 construction.

#### 4.9.4.3 Impact Evaluation

**Impact HWQ-1: The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (Project: Less than Significant with Mitigation; Phase 1: Less than Significant with Mitigation)**

##### Project

##### Construction

##### Surface Water Quality

Project construction activities under either buildout scenario, including grading, stockpiling of soil 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. No surface water features are within the project area; therefore, construction would not involve dredge and fill activities.

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<sup>48</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

Project construction would also involve use of motorized heavy equipment including trucks and dozers that require fuel, lubricating grease and other fluids. Accidental chemical release or spill from a vehicle or equipment could affect surface water. These 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 the governing city's municipal code, which contain standards to ensure that water quality is not degraded; these requirements are also incorporated into the Southline Specific Plan. 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.

For construction activities in South San Francisco, as required by standard conditions of approval, a grading permit would be obtained from the City prior to any on-site grading. 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. The City's grading permit requires applicants to have erosion control measures in place, such as de-silting basins, silt fences, asphaltic emulsions, hay bales, fabric and sand filters, swales, and/or sumps.

Construction activities within the off-site improvement areas located in San Bruno would be subject to the City of San Bruno's grading requirements and conditions of approval, which require a grading permit prior to any on-site grading. The City of San Bruno's grading permit requires applicants to install sandbags or other erosion control measures to prevent silt runoff to public roadways. 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 dikes) to prevent silt runoff to public roadways, storm drains, or waterways. As appropriate, disturbed soil would be revegetated as soon as possible with the appropriate selection and schedule of plants.

No disturbed or graded 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. In addition, stormwater management and discharge controls (South San Francisco Municipal Code Chapter 14.04) would be implemented to minimize water quality impacts related to spills or other activities that could contaminate water quality. The plans would be developed according to the guidance provided in documents such as the CASQA construction BMP handbook. 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.

Based on the analysis above, project impacts on surface water quality during construction would be ***less than significant***. No mitigation is required.

### ***Groundwater Quality***

Up to 688,400 cubic yards would be excavated under the Office Scenario. Construction dewatering would be required during certain site preparation and subterranean construction within the Specific Plan area associated with excavation for the subterranean garages, as further explained below. The depth to groundwater in the Specific Plan area ranges from approximately 8 to 27 feet bgs. The shallowest depth to groundwater encountered during subsurface investigations, 8 feet bgs (i.e., a high groundwater level), which also accounts for any future fluctuations in the water table, is considered the project's design groundwater depth. Because the depth to groundwater is above the maximum depth of excavation (31 feet bgs), dewatering during construction of below-grade facilities, specifically the subterranean parking structures, would be required. Groundwater drawdown and discharge was estimated for the temporary dewatering required during construction. Due to the nature of underlying soil, temporary dewatering would be from the design high groundwater level of 8 feet below the existing grades down to at least 5 feet below the bottom of the building foundation excavations.<sup>49</sup> Groundwater dewatering would only be required for major excavations in Specific Plan area and only within South San Francisco. Dewatering would not be required for construction in off-site improvement areas.

Dewatering could result in the exposure of pollutants from spills or other activities and may contaminate groundwater. Groundwater dewatering may also mobilize existing groundwater contaminant plumes. These existing plumes and neighboring contaminant plumes are described in Section 4.8, *Hazards and Hazardous Materials*, of this EIR. Untreated water from construction site dewatering may contain pollutants that, if discharged to a storm drain system or natural watercourse, may exceed water quality standards of the receiving water. Typical pollutants that may be encountered include sediment (the most common pollutant associated with dewatering operations), high levels of pH, and contaminant pollutants associated with current or past use of the site or adjacent land. Release of these pollutants into receiving waters could potentially harm wildlife in the San Francisco Bay or interfere with the wastewater treatment plant's operation. Discharging contaminated or sediment-laden water from a dewatering site into any water of the state without treatment is prohibited.

Phase 1 and future development under the Specific Plan would be required, as conditions of approval, to comply with the recommendations in the Design-Level Geotechnical Investigation and grading permit requirements. The Design-Level Geotechnical Investigation recommends that excavations less than 30 feet deep be supported by soldier beams and tiebacks, sheet piles, or soil mixed walls with internal bracing or tiebacks, or other methods. To prevent lateral groundwater seepage, the Design-Level Geotechnical Investigation recommends that excavations greater than 30 feet deep construct less pervious walls consisting of soldier pile tremie concrete (SPTC) or mixed-in-place soil/cement. Fine-grained soils are generally found at a depth of 20 feet, which would significantly reduce seepage. Generally, groundwater trapped in soils would be removed by standard dewatering wells; however, sump pumping would be required to dewater saturated soil if fine grained soils are present. By implementing low permeability watertight shoring during

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<sup>49</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

excavations greater than 30 feet,<sup>50</sup> the risk of mobilizing contaminant plumes created by dewatering drawdown would be reduced, and discharge rates and the pumping duration would be reduced. Nonetheless, because construction dewatering activities may result in plume migration, it is possible that such migration could result in pollutants discharging into a storm drain system or natural watercourse; as such, mitigation would be required to address the potential impacts on water quality that would be caused by this migration.

For water to be discharged to the Bay, the contractor would notify the San Francisco Bay Regional Water Board and comply with the board's requirements related to the quality of water and discharges. The Construction General Permit provides coverage for dewatering activities, provided that dischargers prove the quality of water to be adequate and not likely to affect beneficial uses. However, groundwater sampling and/or treatment may be required to ensure compliance with applicable construction dewatering discharge permitting. If contaminated groundwater is encountered, compliance with discharge sampling, monitoring, and reporting requirements, and the VOC and Fuel General Permit (Order No. R2-2018-0050) is also required. If it is found that the groundwater does not meet water quality standards, it must either be treated prior to discharge so that all applicable water quality objectives (as designated in the Basin Plan) are met or hauled off-site for treatment and disposal at an appropriate waste treatment facility that is permitted to receive such water.

Other construction activities could result in short-term groundwater quality impacts associated with the input of sediment loads or chemical spills into storm drains or groundwater aquifers that exceed water quality objectives if proper minimization measures are not implemented. However, the proposed project would be required to comply with the Municipal Regional Permit, including filing a Notice of Intent for permit coverage under the Construction General Permit as well as local stormwater and construction site runoff ordinances. These requirements involve development and implementation of a Construction General Permit SWPPP, a Sediment Control Plan, and a stormwater management plan specific to the project site to minimize water quality impacts related to spills or other activities that could contaminate groundwater. Best Management Practices (BMPs) will be required and incorporated into individual SWPPPs and other permits prior to approval of grading permits, providing an acceptable level of water quality protection. Shallow soils and groundwater would be managed with a soil and groundwater management plan. The soil and groundwater management plan would describe recommended specific health and safety requirements and exposure controls.<sup>51</sup> More information on hazardous material requirements is provided in Section 4.8, *Hazards and Hazardous Materials*, of this EIR. Additionally, compliance with dewatering regulations would ensure that dewatering activities are monitored and treated as required and that no violations of any water quality standards or waste discharge requirements occur.

In summary, construction dewatering activity would have the potential to mobilize existing groundwater contaminate plumes in the area, resulting in a potentially significant impact to groundwater quality. Implementation of **Mitigation Measure HWQ-1** within the Specific Plan area would reduce this potentially significant impact on groundwater quality to a less-than-significant level by requiring ongoing monitoring and remediation during dewatering activities. Therefore,

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<sup>50</sup> Assuming that shoring walls are properly constructed and the fine-grained soils below subgrade are continuous across the excavation.

<sup>51</sup> ATC Group Services LLC. 2019. Phase I Environmental Site Assessment of 325 Maple Ave/325 South Maple Avenue South San Francisco, California ATC PROJECT NO. NPGS19033. October 31.

project impacts on groundwater quality during construction would be ***less than significant with mitigation***.

**Mitigation Measure HWQ-1: Require Groundwater Monitoring and Sampling Prior to Dewatering Activity (All Phases)**

Prior to any construction activity proposing or with the potential to require dewatering, the Phase 1 applicant and applicants of future Precise Plans shall 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. The Phase 1 applicant and applicants of future Precise Plans shall ensure collection and testing of samples prior to initiating construction activities proposing or with the potential to require dewatering. The location of the sampling locations shall be at an appropriate distance from the proposed dewatering site, as determined by a geotechnical evaluation of the local groundwater and soil conditions. 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 a hazardous materials disposal facility depending on type and levels of contamination, tanking, or stopping or phasing underground construction. Water shall be treated such that it complies with discharge and reporting requirements of the Volatile Organic Compound (VOC) and Fuel General Permit (Order No. R2-2018-0050) and applicable water quality objectives as designated in the San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan), or hauled off-site for treatment and disposal at a permitted waste treatment facility. The applicant shall be responsible for demonstrating to the City that the treatment and disposal requirements set forth in this mitigation measure have been met.

***Operation***

As shown in **Table 4.9-3, p. 4.9-38**, implementation of the proposed project (Life Sciences Scenario) would result in an increase of 189,050 square feet of pervious surface area within the Specific Plan area as a result of installing new landscaping and open space improvements. This would decrease peak runoff flows from the Specific Plan area from 47.27 cubic feet per second (cfs) to 41.73 cfs during a 10-year storm, and from 56.43 cfs to 49.83 cfs during a 25-year storm (**Table 4.9-5, p. 4.9-38**).<sup>52</sup> The off-site improvement areas would be developed with roadway and infrastructure improvements and would remain mostly impervious, consistent with existing conditions. As such, within the off-site improvement areas, the project would not cause an appreciable change in pervious surface area. Therefore, this analysis focuses on changes to runoff flows that would result from project buildout within the Specific Plan area.

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<sup>52</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

**Table 4.9-3. Comparison of Pre- and Post-Project Pervious and Impervious Surface Area within the Specific Plan Area – Project Buildout**

	Area (Square Feet)	Area (acres)	Area (%)
Existing Impervious	1,082,466	24.85	94
Existing Pervious	73,181	1.68	6
<b>Total</b>	<b>1,155,647</b>	<b>26.53</b>	<b>100</b>
Proposed Impervious	893,416	20.51	77
Proposed Pervious	262,231	6.02	23
<b>Total</b>	<b>1,155,647</b>	<b>26.53</b>	<b>100</b>

Source: BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20, 2021.

Note: numbers may not sum precisely due to rounding.

Stormwater runoff may carry pollutants to receiving waters, including the Bay. Runoff from impervious surfaces can generate non-point source pollutants such as organic materials, solids, pathogens, sediment from erosion, chemical fertilizers, and other pollutants. However, all project-related development would comply with applicable federal, State, and local requirements discussed in Section 4.9.3, *Regulatory Framework*, including C.3 and NPDES regulations.

Consistent with C.3 requirements in the MRP and City requirements such as stormwater Municipal Codes and grading permit requirements, stormwater runoff from future phases of the proposed project would be treated through LID methods where feasible, which may consist of biofiltration, stormwater treatment areas, and other site design features intended to manage stormwater runoff flows from the Specific Plan area and to reduce stormwater pollution. Where LID treatment is not feasible, stormwater runoff will be treated using approved filter vaults, as permitted under the C.3 Special Projects provision.

The Southline Specific Plan includes policies to encourage the incorporation of sustainable and environmentally sensitive design and equipment, water conservation measures and drought-tolerant/low-water use or equivalent landscaping, and sustainable stormwater management features. The proposed project would be designed to protect water quality through the management of stormwater runoff as part of green infrastructure and LID where feasible. Biotreatment areas would be located throughout the Specific Plan area where soil conditions allow. Landscape buffers would function as biofiltration for stormwater runoff, and incorporate native and/or adaptive landscaping that is drought tolerant and able to handle periods of inundation. Other open space areas that would allow for water infiltration and associated water quality treatment include the Southline Commons, an approximately 1.5-acre open space located in the northwestern portion of the Specific Plan area. Southline Commons would include a varied landscape, including shade trees and landscaped berms and serve as green space. The Tanforan Avenue Community Parklet, which would be developed during Phase 1 and would cover approximately 0.5 acre, would be surrounded by landscaping and include bioretention features such as a stormwater demonstration garden and a plant garden. Landscape design throughout the Specific Plan area would minimize stormwater runoff rates and volume and promote surface filtration. LID treatment methods and compliance with stormwater management requirements would be applied to subsequent phases of the project where feasible.

Development within the Specific Plan area would be required to comply with the City's standard development conditions regarding both stormwater conveyance and water quality, in addition to any other applicable federal, state and local requirements regarding stormwater discharge. Further, development of off-site improvements in San Bruno would be required to comply with applicable City of San Bruno stormwater requirements. For additional discussion of the proposed project's consistency with San Bruno plans and policies related to storm drain infrastructure, including the City's Green Infrastructure Plan and Storm Drain Master Plan, see Section 4.17, *Utilities and Service Systems*, of this EIR. 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.

To demonstrate compliance with trash load reduction goals related to water quality, 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. Further, all parking spaces, driveways, maneuvering aisles, turn-around areas and landscaping areas would be kept free of debris and litter at all times, as required by City conditions of approval. In addition, vapor intrusion measures would be designed and implemented for the proposed on-site buildings to protect against releases to groundwater from nearby sources.<sup>53</sup>

The project would be designed and maintained in accordance with City, County, and San Francisco Bay Regional Water Board water quality requirements, such as the San Francisco Bay MRP, SMCWPPP, San Bruno water quality requirements, and the Specific Plan Design Guidelines (for development within the Specific Plan area). 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 biofiltration and stormwater treatment areas. The project would not violate any water quality standards or otherwise result in water quality degradation during operation. Therefore, project impacts on water quality during operation would be ***less than significant***. No mitigation is required.

## Phase 1

### ***Construction***

#### ***Surface Water Quality***

Phase 1 would require grading or disturbing an area of approximately 740,000 square feet square feet during construction, including the off-site improvement areas that would be developed during Phase 1. Phase 1 would excavate approximately 293,000 cubic yards of soil to a depth of up to 31 feet. Like the project, Phase 1 must comply with the NPDES Construction General Permit, the Municipal Regional Permit, the governing 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, restrict non-stormwater discharges, provide pollutant control, and reduce or limit surface runoff. For the reasons stated above in the project

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<sup>53</sup> ATC Group Services LLC. 2019. Phase I Environmental Site Assessment of 325 Maple Ave/325 South Maple Avenue South San Francisco, California ATC PROJECT NO. NPGS19033. October 31.

analysis, Phase 1 impacts on surface water quality during construction would be ***less than significant***. No mitigation is required.

### ***Groundwater Quality***

Phase 1 would require a maximum depth of excavation reaching approximately 31 feet below ground surface. Dewatering would be required during Phase 1 construction when subterranean parking garages are constructed within the Specific Plan area. Dewatering would not be required for construction in off-site improvement areas. Groundwater drawdown will be from the design high groundwater level of 8 feet below the existing grades down to 5 feet below the bottom of the excavations.<sup>54</sup> Similar to the project, all Phase 1 related development would comply with applicable federal, State, and local requirements discussed in Section 4.9.3, *Regulatory Framework*. The contractor would notify the San Francisco Bay Regional Water Board and comply with the board's requirements related to the quality of water and discharges. However, as with the proposed project, construction dewatering during Phase 1 would have the potential to mobilize existing groundwater contaminate plumes in the area, resulting in a potentially significant impact to groundwater quality. Implementation of **Mitigation Measure HWQ-1** would reduce this potentially significant impact on groundwater quality to a less-than-significant level by requiring ongoing monitoring and treatment/remediation during dewatering activities. Therefore, for the reasons stated above in the project analysis, Phase 1 impacts on groundwater quality during construction would be ***less than significant with mitigation***.

### **Operation**

Phase 1 includes construction of all new development south of Southline Avenue, including: Buildings 1, 2, and 7; subterranean parking; and open space, circulation, and pedestrian improvements. Phase 1 also includes construction of the eastern wing of Parking Structure C north of Southline Avenue. Phase 1 also includes most of the off-site improvements. As shown in **Table 4.9-4, p. 4.9-33**, Phase 1 would increase the amount of pervious surface area within the Specific Plan area by approximately 132,858 square feet. For purposes of the Phase 1 analysis, the stormwater runoff analysis considered a worst-case scenario in which all existing impervious area remains in place within the future phase areas of the Specific Plan area during construction of Phase 1. The analysis assumes that all existing uses within the future phase areas would be demolished during Phase 1 to the foundation level only, so that soils within the future phase areas would not remain exposed during Phase 1 construction. Based on these assumptions, Phase 1 would decrease peak runoff flows from the Specific Plan area from 47.27 cfs to 43.38 cfs during a 10-year storm, and from 56.43 cfs to 51.79 cfs during a 25-year storm (**Table 4.9-6, p. 4.9-40**).<sup>55</sup> The off-site improvement areas would be developed with roadway and infrastructure improvements and would remain mostly impervious, consistent with existing conditions. As such, within the off-site improvement areas, Phase 1 would not cause an appreciable change in pervious surface area. Therefore, this analysis focuses on changes to runoff flows that would within the Specific Plan area after implementation of Phase 1.

<sup>54</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>55</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

**Table 4.9-4. Comparison of Pre- and Post-Project Pervious and Impervious Surface Area within the Specific Plan Area – Phase 1**

	<b>Area (Square Feet)</b>	<b>Area (acres)</b>	<b>Area (%)</b>
Existing Impervious	1,082,466	24.85	94
Existing Pervious	73,181	1.68	6
<b>Total</b>	<b>1,155,647</b>	<b>26.53</b>	<b>100</b>
Proposed Impervious	950,044	21.81	82
Proposed Pervious	206,039	4.73	18
<b>Total</b>	<b>1,155,647</b>	<b>26.53</b>	<b>100</b>

Source: BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

Note: numbers may not sum precisely due to rounding.

To manage water quality, Phase 1 includes LID areas for treatment of stormwater runoff within the Specific Plan area where feasible. Phase 1 also includes new perimeter landscape. In total Phase 1 would include approximately 92,647 square feet of planted landscaped areas (not accounting for the proposed biotreatment areas) and 103,600 square feet of irrigated landscape inclusive of bioretention areas. Phase 1 would also include ten biotreatment areas (e.g., planting areas), that would be distributed throughout the three proposed building areas. The biotreatment areas would total approximately 18,499 square feet. Phase 1 would include development of the Tanforan Avenue Community Parklet which would incorporate a pathway surrounded by landscaping as well a stormwater demonstration garden and plant garden. Where LID treatment is not feasible, Phase 1 stormwater runoff will be treated using approved filter vaults, as permitted under the C.3 Special Projects provision.

Phase 1 would comply with the City's standard conditions of approval regarding both stormwater conveyance and water quality, in addition to any other applicable federal, state and local requirements regarding stormwater discharge. Off-site improvements located in San Bruno would also be subject to the City of San Bruno's permitting and Municipal Code requirements for any permits issued. Stormwater runoff from Phase 1 would be managed according to the provisions of the San Francisco Bay MRP and would not violate any water quality standards or otherwise result in water quality degradation. Therefore, Phase 1 impacts on water quality would be ***less than significant***. No mitigation is required.

**Impact HWQ-2: The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

## Project

### Construction

The depth to groundwater on the Specific Plan area ranges from approximately 8 to 27 feet bgs. Because the depth to groundwater is above the maximum depth of excavation (31 feet bgs), dewatering during construction of below-grade facilities, specifically the subterranean parking structures, would be required. Groundwater drawdown and discharge was estimated for the temporary dewatering required during construction. Due to the nature of underlying soil, temporary

dewatering would be from the design high groundwater level of 8 feet below the existing grades down to at least 5 feet below the bottom of the building foundation excavations.<sup>56</sup> Dewatering would not be required for construction in the off-site improvement areas.

Temporary dewatering would be conducted during the construction phase. Groundwater supplies would not be used during construction activities such as dust control. Determining the groundwater control method during dewatering activities depends on factors such as geometry of the excavation, aquifer properties, depth of excavation, and the aquifer thickness below the base of the excavation (subgrade). The proposed excavation would encounter saturated fine-grained and granular soils below elevation 19 to 16 feet. During excavations greater than 30 feet, a low permeability watertight shoring wall would be constructed around each excavation. This method would provide the lowest dewatering discharge rates and the shortest pumping duration.<sup>57</sup> Therefore, construction of the proposed project would not substantially decrease groundwater supplies or impede sustainable groundwater management of the basin. This impact would be ***less than significant***. No mitigation is required.

### Operation

The proposed project is located within the Westside Groundwater Basin, which is a low priority basin. Beneficial uses of the basin include water supply. As shown in **Table 4.9-3, p. 4.9-30**, the amount of pervious area within the project site would increase upon project completion, with approximately 77 percent of the Specific Plan area covered with impervious surfaces and 23 percent of the Specific Plan area covered with pervious surfaces. The project would also include new landscape buffers, native and/or adaptive landscaping, and biotreatment areas throughout the project site in accordance with the design guidelines for landscaping and open space in the proposed Specific Plan. These features would treat runoff and capture and naturally filter contaminants from the site's stormwater runoff. The addition of impervious areas would allow for groundwater infiltration and groundwater recharge. New landscaped areas would slow surface water runoff, allowing it to percolate into the ground, thereby providing increased benefits for groundwater recharge. All subterranean parking garages would be waterproofed and would not require permanent dewatering systems. The project would, therefore, not substantially decrease groundwater supplies and would not impede sustainable groundwater management of the basin. Therefore, this impact would be ***less than significant***. No mitigation is required.

### Phase 1

As discussed above, the depth to groundwater on the Specific Plan area, which includes the Phase 1 site, ranges from approximately 8 to 27 feet bgs.<sup>58</sup> Buildings 1, 2, and 7 and an eight-level parking structure including up to two levels of below-grade parking are anticipated to require excavations of approximately 31 feet below existing grades. Dewatering would be required during Phase 1 construction to construct the subterranean parking garages in the Specific Plan area; dewatering would not be required in the off-site improvement areas. The dewatering design would maintain

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<sup>56</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>57</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>58</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

groundwater at least 5 feet below the bottom of the majority of excavations, and at least two feet below localized excavations such as deepened footings, elevator shafts, and utilities.<sup>59</sup> Dewatering wells require groundwater to be lowered two feet below subgrade for the largest Phase 1 excavation (Buildings 1 and 2).<sup>60</sup> Draw-down of existing groundwater of 17 to 35.25 feet are planned for one- and two-level basements, respectively.<sup>61</sup>

Dewatering would lower the groundwater level inside as well as outside the excavation limits. The magnitude of the drawdown resulting from dewatering activities around Buildings 1 and 2 are estimated to be a radius of approximately 1,100 feet from groundwater draw-down of 17 feet. Effects of dewatering drawdown would remain after six months from the start of dewater pumping. Based on the size of the excavation for Buildings 1 and 2 and the required amount of dewatering and drawdown, the drawdown estimates serve as conservative estimates for other Phase 1 excavations, and actual drawdown may deviate from estimated values depending on subsurface properties. If excavation and associated dewatering activities are occurring simultaneously on multiple Phase 1 buildings and/or other dewatering activities in the surrounding area, the lateral magnitude associated with groundwater drawdown may be greater than estimated values.<sup>62</sup> To reduce potential impacts to structures due to groundwater rise or surface water infiltration, below-grade parking level walls would be waterproofed. As a result, permanent dewatering during operations would not be required.

As shown in **Table 4.9-4, p. 4.9-33**, Phase 1 would increase the amount of pervious surface area within the Specific Plan area by approximately 132,858 square feet. This analysis assumes that Phase 1 would demolish all existing uses within the Specific Plan area to the foundation only until future phases are constructed. Phase 1 includes new perimeter landscape, as well as approximately 92,647 square feet of planted landscaped areas and 103,600 square feet of irrigated landscape inclusive of bioretention areas. Phase 1 would include ten biotreatment areas (e.g., planting areas), distributed throughout the Specific Plan area. The biotreatment areas would total approximately 10,953 square feet. The Tanforan Avenue Community Parklet is anticipated to be constructed as part of Phase 1 would incorporate a pathway surrounded by landscaping as well as a stormwater demonstration garden. These features would treat runoff, naturally filter contaminants from stormwater runoff, and allow for groundwater infiltration and groundwater recharge. New landscape areas would slow water, allowing it to percolate into the ground, thereby providing increased benefits for groundwater recharge. Phase 1 would, therefore, not substantially decrease groundwater supplies and would not impede sustainable groundwater management of the basin. Therefore, this impact would be *less than significant*. No mitigation is required.

<sup>59</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>60</sup> Buildings 1 and 2 would be constructed over a common two-level parking/basement structure that would have a proposed subgrade elevation of 3 feet (23 to 27 feet below existing grade). Building 7 and the parking structure would also be constructed over a two-level parking/basement structure, with proposed subgrade elevations of -1 and -2 feet, respectively (24 feet below existing grade).

<sup>61</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

<sup>62</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

**Impact HWQ-3: 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 or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off site, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, or 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 impede or redirect floodflows. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

### Construction

During construction, stormwater drainage patterns could be temporarily altered due to site grading, preparation, and excavation activity. However, the project construction 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<sup>63</sup> into the ground such that off-site 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 off-site. Project construction would not result in an exceedance of drainage system capacities and the associated impact would be *less than significant*. No mitigation is required.

### Operation

Site grading within the Specific Plan area would create two drainage areas: Drainage Area A, which drains to the south and corresponds with the portion of the Phase 1 site located in the Specific Plan area, and Drainage Area B, which drains to the north and corresponds with the future phases in the Specific Plan area. Under the Specific Plan, new stormwater facilities associated with the Specific Plan would be constructed along a portion of Southline Avenue and Dollar Avenue and connect to the existing 42-inch storm drain within Tanforan Avenue as shown in **Figure 4.17-3** in Section 4.17, *Utilities and Service Systems*, of this EIR.

As required by Specific Plan development standards, no lot would be created with size or dimensions rendering it incapable of meeting public utilities standards. As part of the City of South San Francisco's design review and permitting process, a plan showing the location of all storm drains must be submitted to the City for review and approval. All parking spaces, driveways, maneuvering aisles, and turn-around areas must drain and be plumbed to the sanitary sewer during project operations. As stated in Impact HWQ-2, above, the project would be required to replicate the

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<sup>63</sup> Sheet flow is an overland flow or downslope movement of water taking the form of a thin, continuous film over relatively smooth soil or rock surfaces and is not concentrated into channels.

pre-project stormwater water balance under NPDES permitting requirements. The project would comply with all applicable BMPs and permitting requirements regarding stormwater drainage and surface runoff detention measures, and therefore the amount of surface runoff would not increase.

On-site storm runoff would be captured and treated on-site using LID methods such as landscaped bioretention and biofiltration planters per current NPDES C.3 requirements where feasible. Where LID treatment is not feasible, stormwater runoff will be treated using approved filter vaults, as permitted under the C.3 Special Projects provision. Treated runoff would discharge to the public storm drain system through new on-site underground storm drain piping. The project would be served by the existing public storm drain infrastructure within Tanforan Avenue and Maple Avenue, and does not anticipate construction of new public storm drainage infrastructure within those roadways or downstream. A new public roadway (Southline Avenue) would be constructed through the project site, which would contain new public storm drain infrastructure, as well as public bioretention planters, to capture, treat, and convey storm runoff from the new public roadway and adjacent sidewalk areas. This new Southline Avenue storm drain infrastructure would connect to the existing infrastructure in Tanforan Avenue through new public storm drain piping in Dollar Avenue. Proposed public storm drainage improvements or public storm water treatment areas within the City of San Bruno would also be connected to the existing public storm drainage system.<sup>64</sup> All proposed off-site improvements would continue to drain to the existing storm drain infrastructure within the same existing subwatersheds.

The project proposes to maintain or reduce the pre-project flows to both the north (Drainage Area B) and south drainage (Drainage Area A) basins. Implementation of the project would reduce the overall peak runoff from the Specific Plan area by 12 percent by increasing the pervious area for the site. Drainage Area B would convey flows north to either existing and/or improved storm drains located on South Maple Avenue or Linden Avenue, and Drainage Area A of the Specific Plan area would continue to drain south to existing and/or improved storm drains located in Tanforan Avenue.<sup>65</sup> The 10-year and 25-year peak flows to each drainage basin upon project buildout is shown in **Table 4.9-5**, below. After implementation of the project and associated new stormwater infrastructure, Drainage Area A and Drainage Area B would see a decrease in peak 10-year storm flow of 1.24 cfs and 4.29 cfs, respectively, and a decrease of 5.53 cfs for the Specific Plan area as a whole. Drainage Area A and B would see a decrease in peak 25-year storm flow of 1.48 cfs and 5.13 cfs, respectively, and a decrease of 6.60 cfs for the Specific Plan area as a whole.<sup>66</sup>

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<sup>64</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

<sup>65</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

<sup>66</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

**Table 4.9-5. Peak Storm Drain Flow Within the Specific Plan Area – Project Buildout**

Boundary Area	Existing Flow, CFS	Proposed Flow, CFS	Change in Flow, CFS
<b>10-Year Peak Storm Drain Flow</b>			
Drainage Area A <sup>a</sup>	22.64	21.40	-1.24
Drainage Area B	24.62	20.33	-4.29
<b>Total</b>	<b>47.27</b>	<b>41.73</b>	<b>-5.53</b>
<b>25-Year Peak Storm Drain Flow</b>			
Drainage Area A <sup>a</sup>	27.03	25.55	-1.48
Drainage Area B	29.40	24.27	-5.13
<b>Total</b>	<b>56.43</b>	<b>49.83</b>	<b>-6.60</b>

<sup>a</sup> Corresponds with the portion of the Phase 1 site that is within the Specific Plan area.

Notes:

CFS = cubic feet per second

10-year rainfall was assumed to be 1.96 inches per hour

25-year rainfall was assumed to be 2.34 inches per hour

Numbers may not sum precisely due to rounding.

Source: BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

To minimize on-site ponding and flooding, and to allow adequate site drainage, hardscape surfaces would slope at least 2 percent towards suitable discharge facilities; landscape areas would slope at least 3 percent towards suitable discharge facilities. Roof runoff would be directed away from building areas in closed conduits, to approved infiltration facilities, or on to hardscaped surfaces that drain to suitable facilities. Retention, detention or infiltration facilities would be spaced at least 10 feet from buildings, and preferably at least 5 feet from slabs-on-grade or pavement.<sup>67</sup>

The off-site improvement areas would be developed with roadway and infrastructure improvements and would remain mostly impervious, consistent with existing conditions. Given the limited nature of the proposed circulation and utility improvements, similar runoff volumes and associated pollutants to development in the Specific Plan area are anticipated. Off-site storm water treatment methods would comply with C.3 requirements in the MRP and local stormwater requirements. All project-related development would comply with applicable federal, State, and local requirements discussed in Section 4.9.3, *Regulatory Framework*, including requirements for water quality, flood control, and stormwater management.

Based on the analysis above, neither alteration of existing drainage patterns at the project site nor changes in stormwater runoff rates or volumes which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect floodflows, and this impact would be ***less-than-significant impact*** related to stormwater treatment and capacity. No mitigation is required.

<sup>67</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

## Phase 1

### **Construction**

Like the project, stormwater drainage patterns under Phase 1 could be temporarily altered. Grading is expected to include minor cut and fills for utilities and at-grade improvements and substantial excavations for construction of the below-grade parking levels.<sup>68</sup> 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 for compliance with MRP requirements and for consistency with SMCWPPP's C.3 Stormwater Technical Guidance. Discharges of stormwater to the stormwater system during construction would not provide an additional source of polluted runoff because all discharges would be in accordance with the NPDES Construction General Stormwater Permit. Phase 1 construction would not substantially alter the existing drainage pattern of the site in a manner which would result in substantial erosion, flooding or create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems; provide substantial additional sources of polluted runoff; or impede or redirect floodflows. The associated impact would be ***less than significant***. No mitigation is required.

### **Operation**

As discussed in Impact HWQ-1 and shown in **Table 4.9-4, p. 4.9-33**, Phase 1 would increase the amount of pervious surface area within the Specific Plan area by approximately 467,834 square feet. The large increase in pervious surface area during Phase 1 would occur because Phase 1 would demolish all existing uses within the Specific Plan area and retain the northern portion of the Specific Plan area as pervious surface area until future phases are constructed.

Phase 1 would be served by existing water, sanitary sewer, and storm drain facilities fronting the project site, and would construct new lateral connections to connect to existing pipes. New stormwater facilities constructed as part of Phase 1 would be constructed along a portion of Southline Avenue and Dollar Avenue and connect to the existing 42-inch storm drain within Tanforan Avenue. Phase 1 would also relocate portions of existing 24-inch water, sewer, and storm drain mains in South Maple Avenue between Huntington Avenue and Tanforan Avenue. Off-site storm drainage infrastructure improvements are also anticipated with implementation of Phase 1. Drainage improvements include new storm drain mains within South Linden and Dollar Avenue that would tie into the existing 42-inch main located within Tanforan Avenue. Off-site storm drainage infrastructure improvements also include the realignment of the existing 42-inch main located within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue and Southline Avenue. As shown in **Table 4.9-6, p. 4.9-38**, the existing 10-year peak flow for the Specific Plan area is 47.27 cfs. After Phase 1 implementation, the proposed 10-year peak flow would be 43.38 cfs, a decrease of 3.88 cfs. Similarly, the existing 25-year peak flow for the Specific Plan area is 56.43 cfs. After Phase 1 implementation, the proposed 25-year peak flow would be

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<sup>68</sup> Cornerstone Earth Group. 2020. Southline Development: Design-Level Geotechnical Investigation, Project Number 129-3-6. July 28, 2020.

51.79 cfs, a decrease of 4.64 cfs.<sup>69</sup> For reasons stated above in the project analysis, similar runoff volumes and associated pollutants to development in the Specific Plan area are anticipated.

Based on the analysis above, operations associated with Phase 1 would not substantially alter existing drainage patterns at the project site, result in flooding or runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect floodflows. This impact would be ***less than significant***. No mitigation is required.

**Table 4.9-6. Peak Storm Drain Flow within the Specific Plan Area – Phase 1**

Boundary Area	Existing Flow, CFS	Proposed Flow, CFS	Change in Flow, CFS
<b>10-Year Peak Storm Drain Flow</b>			
Drainage Area A <sup>a</sup>	22.64	22.27	-0.37
Drainage Area B	24.62	21.11	-3.51
<b>Total</b>	<b>47.27</b>	<b>43.38</b>	<b>-3.88</b>
<b>25-Year Peak Storm Drain Flow</b>			
Drainage Area A <sup>a</sup>	27.03	26.59	-0.44
Drainage Area B	29.40	25.20	-4.20
<b>Total</b>	<b>56.43</b>	<b>51.79</b>	<b>-4.64</b>

<sup>a</sup> Corresponds with the portion of the Phase 1 site that is within the Specific Plan area.

Notes:

CFS = cubic feet per second

10-year rainfall was assumed to be 1.96 inches per hour

25-year rainfall was assumed to be 2.34 inches per hour

Numbers may not sum precisely due to rounding.

This runoff analysis is based on the worst-case scenario in which all existing impervious area remains in place within the future phase areas of the site during construction of Phase 1.

Source: BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

**Impact HWQ-4: The project would not risk release of pollutants due to project inundation as a result of being located in flood hazard, tsunami, or seiche zones. (Project: No Impact; Phase 1: No Impact)**

## Project

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.<sup>70</sup> 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 South San Francisco contains areas designated as FEMA 100-year floodplain to the northeast of the project site. However, the project site is located outside of the 100-

<sup>69</sup> BKF. 2021. Storm Drainage Technical Study Southline Development Project Technical Memorandum. April 20.

<sup>70</sup> California Emergency Management Agency (CalEMA), the University of Southern California (USC), and the California Geological Survey (CGS). 2009. *Tsunami Inundation Map for Emergency Planning*. State of California, City and County of San Francisco. San Francisco South Quadrangle (San Francisco Bay). June 15.

year flood hazard zone as determined by FEMA (**Figure 4.9-2, p. 4.9-10**).<sup>71</sup> Therefore, the site would not be subject to inundation by a flood. Therefore, there would be **no impact** related to a risk of release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone. No mitigation is required.

## Phase 1

For the reasons stated above in the project analysis, Phase 1 would have **no impact** related to a risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone. No mitigation is required.

**Impact HWQ-5: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (Project: Less than Significant; Phase 1: 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. As stated in Impact HWQ-1, incorporation of sustainable site design features such as surface landscaping design, landscape buffers, biofiltration, and stormwater treatment areas would also reduce stormwater runoff flows and associated pollutants. In addition, implementing the appropriate general plan policies would require the protection of groundwater recharge areas and groundwater resources, as required by a sustainable groundwater management plan.

Dewatering would be conducted temporarily during the construction phase. Further, groundwater supplies would not be used during operation. The amount of impervious area within the project site would decrease upon project completion. New landscape buffers and biotreatment areas throughout the project site would treat runoff and allow for groundwater infiltration and groundwater recharge. 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. The project overlies the Westside Groundwater Basin, which is designated as a very low-priority basin and not subject to SGMA, therefore no sustainable groundwater management plan applies to the project area.

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

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<sup>71</sup> Federal Emergency Management Agency. 2019. National Flood Hazard Layer FIRMette, Map Number 06081C0043F, dated April 5, 2019. Available: [https://p4.msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl\\_print/agolprint\\_gpserver/j25a3d93b5d5e4b8d9606e99a93f2e318/scratch/FIRMETTE\\_353f0870-17c3-44ac-bc0e-9d026be115f2.pdf](https://p4.msc.fema.gov/arcgis/rest/directories/arcgisjobs/nfhl_print/agolprint_gpserver/j25a3d93b5d5e4b8d9606e99a93f2e318/scratch/FIRMETTE_353f0870-17c3-44ac-bc0e-9d026be115f2.pdf).

operation related impacts associated with the project would be ***less than significant***. No mitigation is required.

## Phase 1

Like the project, Phase 1 must comply with the NPDES Construction General Permit, the Municipal Regional Permit, and local stormwater requirements. In addition, a SWPPP is required and would identify standard erosion control measures and water quality BMPs to be implemented during construction to reduce stormwater discharges which contain pollutants that cause or contribute to exceedances of any applicable water quality objectives or water quality standards, including designated beneficial uses. Incorporation of sustainable site design features such as surface landscaped areas and biotreatment areas would also reduce stormwater runoff flows and associated pollutants. In addition, implementing the appropriate general plan policies would require the protection of groundwater recharge areas and groundwater resources, as required by a sustainable groundwater management plan. Therefore, it is not anticipated that Phase 1 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 1 would be ***less than significant***. No mitigation is required.

### 4.9.4.4 Cumulative Impacts

The project site is not located within a mapped flood zone, and the proposed project would have no impact with respect to potential pollutant release due to project inundation as a result of being located in flood hazard, tsunami, or seiche zones. Therefore, the proposed project would not have the potential to contribute to cumulative impacts with regard to this topic.

The cumulative geographic context for impacts related to surface water hydrology and water quality is the Colma Creek-Frontal San Francisco Bay Estuaries Watershed (approximately 32 square miles). The cumulative geographic context for impacts related to groundwater hydrology and water quality is the Westside Groundwater Basin (approximately 40 square miles). Given the size of each area, it is beyond the scope of this EIR to identify every cumulative project within their boundaries. However, it is reasonable to assume that other cumulative projects would be similar to the past, present, and reasonably foreseeable future projects identified within a 0.5-mile radius of the project site (refer to Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR) in that they would be anticipated to consist predominantly of urban development on similar paved, in-fill sites.

**Impact C-HWQ-1: The Project, inclusive of Phase 1, together with the cumulative projects identified would not result in a cumulatively considerable contribution to significant cumulative impacts on hydrology and water quality. (Project: *Less than Cumulatively Considerable with Mitigation*; Phase 1: *Less than Cumulatively Considerable with Mitigation*)**

Assuming concurrent implementation of the proposed project with other reasonably foreseeable cumulative development, adverse cumulative effects on hydrology and water quality could include construction impacts related to increases in stormwater runoff and pollutant loading to the San Francisco Bay. The project, together with cumulative projects, could degrade stormwater quality during construction through land disturbance and during operation through an increase in impervious surface area and contaminated runoff.

The cumulative geographic areas, inclusive of the project site, are fully developed. Buildout of cumulative projects would be anticipated to primarily involve redevelopment of existing developed sites that contain substantial impervious surfaces. The incremental water quality impact contribution from implementation of the proposed project would be minor. However, the proposed project, together with cumulative projects, could degrade stormwater quality through an increase in impervious surface area and an increase in contaminated runoff. 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. Such potential impacts 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. 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.

Like the proposed project, cumulative projects would be required to comply with the Construction General Permit to control runoff and regulate water quality at each development site, in addition to regional and local requirements regarding protection of 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. New projects would be required to demonstrate that stormwater volumes could be managed by downstream conveyance features and would not induce flooding.

With regard to groundwater quality, before mitigation, the project could contribute to cumulative significant water quality impacts related to construction dewatering and discharge of potentially contaminated dewatered groundwater into surface waters or migration of contaminated plumes as described under Impact HWQ-1 above. However, with implementation of **Mitigation Measure HWQ-1**, water quality effects due to construction dewatering and potentially contaminated dewatered groundwater would be controlled such that the proposed project would not contribute considerably to cumulative significant water quality impacts.

Based on the analysis above, the proposed project's contribution to cumulative impacts on hydrology and water quality would be ***less than cumulatively considerable with mitigation***.

**Impact C-HWQ-2: The project, inclusive of Phase 1, together with the cumulative projects identified would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that sustainable groundwater management of the basin would be impeded (Project: *Less than Significant*; Phase 1: *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. Dewatering during the construction phase would be conducted temporarily and would not adversely affect groundwater supplies and is therefore not cumulatively significant.

During operation, new impervious areas can reduce the potential for groundwater recharge. However, other reasonably foreseeable projects in the Westside Groundwater Basin would be expected to include 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

development would be occurring mostly in areas with a substantial amount of existing impervious surfaces. Further, the Westside Groundwater Basin is designated as a very low-priority basin and not subject to SGMA. 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. Cumulative development would also be consistent with C.3 requirements in the MRP and the City requirements related to LID methods or, where LID methods are infeasible, alternative method as permitted under the C.3 Special Projects provisions. The proposed project would not substantially interfere with groundwater recharge because it would increase the size of groundwater recharge areas and would not require permanent dewatering, as further described in Impact HWQ-1 above. Therefore, groundwater recharge resulting from potential impacts of the project in combination with other foreseeable projects would not be adversely affected. Cumulative impacts on groundwater recharge and supply would be *less than significant*.

**Impact C-HWQ-3: The project, inclusive of Phase 1, together with the cumulative projects identified 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: Less than Significant; Phase 1: Less than Significant).**

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.

The project would result in a decrease in impervious surfaces. Further, post-project flows would be less than pre-project flows. Post-construction storm water management BMPs include implementation of biotreatment areas, bioretention basins, landscape buffers, flow through planters, allowing stormwater infiltration and reducing impacts associated with impervious areas. All new development would be required to address 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. Therefore, the project would not contribute to the cumulative exceedance of storm drainage capacity, and there would be a *less than significant* cumulative impact.

## 4.10 Land Use and Planning

### 4.10.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on land use and planning. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described.

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. The NOP comments pertaining to land use and planning include concerns related to the proposed project's consistency with Bay Area Rapid Transit's (BART's) Station Access Policy and with the City of San Bruno's General Plan and Walk 'n Bike Plan.<sup>1</sup> These issues are addressed below in Section 4.10.4, *Impacts and Mitigation Measures*.

### 4.10.2 Environmental Setting

The approximately 26.5-acre Specific Plan area is in the City of South San Francisco ("City"). The City is located south of the City of Brisbane and north of the City of San Bruno. The City is built on the bay plain and on the northern foothills of the Coastal Range. The City is located along major transportation routes, including U.S. 101, Interstate 380, Interstate 280, BART tracks, and the Union Pacific Railroad tracks, which are also used by Caltrain. **Figure 3-1** in Chapter 3, *Project Description*, shows the location of the Specific Plan area and the regional vicinity. As shown in this figure and described in detail under Chapter 3, *Project Description*, the off-site improvement areas are located within the Cities of South San Francisco and San Bruno, including within areas under BART's jurisdiction, generally adjacent to the proposed Specific Plan area to the west, south and east. Together, the 26.5-acre Specific Plan area and off-site improvement areas comprise the approximately 33-acre project site.

#### Project Site

As shown in **Figure 3-2** in Chapter 3, *Project Description*, land uses surrounding the project site include commercial, industrial, and warehouse facilities located to the north and east of the project site within the City of South San Francisco. To the south are predominantly single-family residences, and to the west are the San Bruno BART station and the Shops at Tanforan and San Bruno Towne Center, all of which are in the City of San Bruno. The Centennial Way Trail, a Class I multi-use path, runs generally parallel to Maple Avenue to the west of the project site, in addition to bicycle lanes along Sneath Avenue.

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<sup>1</sup> With respect to issues raised related to the City of San Bruno's Green Infrastructure Plan, refer to Section 3.17 *Utilities*, of this EIR, which addresses the Project's consistency with this policy.

The San Bruno Caltrain station is located approximately 0.75 mile to the south and the South San Francisco Caltrain station is located approximately 1.5 miles to the north of the project site. Existing circulation surrounding the project site includes South Maple Avenue, Huntington Avenue, Tanforan Avenue, Dollar Avenue, and South Linden Avenue. The project site is located within approximately 0.1 mile from the San Bruno BART station and the co-located SamTrans Transit Center, which provides bus service to a range of destinations in San Mateo County. The project site is served by six freeway interchanges within a radius of 1.5 miles: Interstate 380/El Camino Real, U.S. 101/Grand Avenue, U.S. 101/Produce Avenue/South Airport Boulevard, U.S. 101/San Bruno Avenue, Interstate 280/Sneath Lane, and Interstate 280/San Bruno Avenue. The project site is approximately 1.1-miles northwest of San Francisco International Airport (SFO).

### Specific Plan Area

The existing uses within the approximately 26.5-acre Specific Plan area portion of the project site includes seven parcels, developed with a variety of occupied and unoccupied office, industrial, warehouse, and storage facilities that were largely constructed in the 1940s and 1950s. The existing parcel size, address, land use, and building size of the seven parcels within the Specific Plan area are described in **Table 3-1** in Chapter 3, *Project Description*. As shown therein, the existing structures within the Specific Plan area total nearly 344,000 square feet. Surface parking lots containing approximately 380 spaces and storage areas are interspersed among the buildings. The Specific Plan area currently lacks internal circulation; there are no routes through the site from South Maple Avenue on the west to South Linden Avenue on the east. An existing site plan is shown in **Figure 3-3** in Chapter 3, *Project Description*.

The topography of the Specific Plan area and surrounding vicinity is relatively flat with a slight slope downward toward the northeast. The Specific Plan area contains some ornamental landscape and approximately 162 trees, including two protected trees.<sup>2,3</sup> The Specific Plan area is served by existing utility infrastructure owned and maintained by the City of South San Francisco (sanitary sewer and stormwater), the California Water Service Company (water), and Pacific Gas and Electric (natural gas and electricity).

### Existing Land Use Controls

Section 3.3.3.1 of the Chapter 3, *Project Description*, provides a comprehensive overview of the existing General Plan land use and zoning designations of the Specific Plan area, which is summarized here.

<sup>2</sup> Urban Tree Management. 2020. *Tree Inventory of Southline, South San Francisco, CA 94080*. May 13.

<sup>3</sup> The City of South San Francisco defines a protected tree as any tree of the following species with a circumference of 75 inches or more when measured 54 inches above natural grade: blue gum (*Eucalyptus globulus*), black acacia (*Acacia melanoxylon*), myoporum (*Myoporum laetum*), sweetgum (*Liquidambar styraciflua*), glossy privet (*Ligustrum lucidum*), lombardy poplar (*Populus nigra*), or any upright, single-trunked tree considered to be a heritage tree species, with a circumference of 30 inches or more when measured at 54 inches above natural grade: California bay (*Umbellularia californica*), oak (*Quercus* spp.), cedar (*Cedrus* spp.), California buckeye (*Aesculus californica*), Catalina ironwood (*Lyonothamnus asplenifolium*), strawberry tree (*Arbutus* spp.), mayten (*Maytenus boaria*), or little gem dwarf southern magnolia (*Magnolia grandiflora*, "Little Gem"). City of South San Francisco. n.d. *South San Francisco Municipal Code*. Chapter 13.30, Tree Preservation. Available: [http://www.qcode.us/codes/southsanfrancisco/?view=desktop&topic=13-13\\_30-13\\_30\\_080](http://www.qcode.us/codes/southsanfrancisco/?view=desktop&topic=13-13_30-13_30_080). Accessed: September 13, 2021.

### *General Plan Designation and Planning Sub-Area*

Under the 1999 South San Francisco General Plan (General Plan) Land Use Element, nearly all of the Specific Plan area (approximately 26.2 acres) is designated as Office, a designation intended to provide sites for administrative, financial, business, professional, medical, and public offices in locations proximate to BART or Caltrain stations. A small, approximately 0.3-acre portion of the Specific Plan area is designated under the General Plan and zoned as Parks and Recreation; this is a linear strip that runs in a southwest-northeast direction, corresponding with an historic rail easement.

The Planning Sub-Areas Element of the General Plan identifies the Specific Plan area as being located within the Lindenville Planning Sub-Area, which, comprises a range of commercial uses, including small business parks. The Planning Sub-Areas Element does not impose density or height standards separate from those standards found in the General Plan's Land Use Element. The Lindenville Planning Sub-Area is an area that the City has identified as needing "upgrading and rehabilitation",<sup>4</sup> and the General Plan indicates that the area's proximity to the San Bruno BART station will provide opportunities for redevelopment. Access to the area is constrained, and often trucks have to navigate downtown streets to access U.S. 101 at the Grand Avenue intersection, creating bottlenecks at major entryways to the City. To that end, the General Plan includes a number of policies that encourage redevelopment and infrastructure improvements in the Lindenville Planning Sub-Area, such as providing better connectivity to the San Bruno BART station, including an extension of South Linden Avenue through the Specific Plan area; enhancing the appearance of the area by undertaking streetscape and other improvements; improving the buffering between industrial areas in the Lindenville Planning Sub-Area and surrounding residential neighborhoods; and encouraging new office development in areas designated for that use. General Plan Figure 2-3, *Special Area Height Limitations*, establishes certain height limitations in specific areas within the City, including near BART stations. This figure shows the majority of the Specific Plan area is subject to an 80-foot height limitation and notes that for areas subject to airport-related height limitations, building heights must be in accordance with the limits indicated in the most recently adopted Comprehensive Airport Land Use Plan.

### *Zoning*

The majority of the proposed Specific Plan area (approximately 26.2 acres), which corresponds with the Office land use designation under the General Plan, is zoned Business and Professional Office under the Zoning Ordinance. This zoning district, which implements the General Plan's Office designation, is intended to provide sites for development such as administrative, financial, business, professional, medical, and public offices at locations close to BART or Caltrain stations. The maximum base FAR for administrative, financial, and other office uses is typically 1.0, but increases up to a maximum FAR of 2.5 may be permitted for development that meets specific transportation demand management, off-site improvement, or design requirements or criteria. The small 0.3-acre portion of the Specific Plan area corresponding with the Parks and Recreation land use designation is also zoned Parks and Recreation.

As further described in Section 3.7 of Chapter 3, *Project Description*, implementation of the proposed project would require certain discretionary approvals including General Plan amendments, adoption

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<sup>4</sup> City of South San Francisco General Plan, p. 3-14. 1999.

of the Southline Specific Plan, and zoning map and text amendments. See Section 4.1.0.4, *Impacts and Mitigation*, for further discussion.

### **Off-Site Improvement Areas**

The off-site improvement areas consist of rights-of-way and easements located in the cities of South San Francisco and San Bruno, and within BART's jurisdiction. The off-site improvement areas would be developed with circulation and utility infrastructure and do not contain any buildings or structures.

### **Phase 1 Site**

The Phase 1 site totals approximately 16.96 acres, which includes approximately 11.93 acres within the Specific Plan area and approximately 5.03 acres within the off-site improvement areas. Under the existing conditions, the portion of the Phase 1 site within the Specific Plan area includes approximately nine buildings on five parcels. The entire Phase 1 site within the Specific Plan area has an Office land use designation under the City of South San Francisco General Plan. Properties within the Specific Plan area that are located partially or fully within the Phase 1 site are identified with an asterisk in Table 3-1 in Chapter 3, *Project Description*. The portion of the Phase 1 site within the off-site improvement areas consist of rights-of-way and easements located in the cities of South San Francisco and San Bruno, and within BART's jurisdiction. Table 3-5 in Chapter 3, *Project Description*, provides a breakdown of off-site improvements under Phase 1. As identified in this table, the off-site improvement areas would be developed with circulation and utility infrastructure and do not contain any buildings or structures.

## **4.10.3 Regulatory Framework**

This section provides a summary of the land use and planning plans and policies of federal, state, regional, and local agencies that have policy and regulatory control over the project site.

### **4.10.3.1 Federal**

#### **Code of Federal Regulations Part 77**

Title 14 of the Code of Federal Regulations (CFR) Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace*, governs the Federal Aviation Administration (FAA)'s review of proposed construction exceeding certain height limits, defines airspace obstruction criteria, and provides for FAA aeronautical studies of proposed construction. The regulations contain three key elements: (1) standards for determining obstructions in the navigable airspace and designation of imaginary surfaces for airspace protection; (2) requirements for project sponsors to provide notice to the FAA of certain proposed construction or alteration of structures that may affect the navigable airspace; and (3) the initiation of aeronautical studies, by the FAA, to determine the potential effect(s), if any, of proposed construction or alterations of structures on the subject airspace.

Pursuant to these federal regulations, any new structure or alterations to an existing structure (including portions of structures, mechanical equipment, flag poles, and other projections) with a height that would exceed Part 77 elevation thresholds is required to file a Notice of Proposed Construction or Alteration with the FAA. Part 77 Subpart C establishes obstruction standards for the airspace around airports including approach zones, conical zones, transitional zones, and horizontal zones known as "imaginary surfaces." These imaginary surfaces rise from the primary surface

(ground level at the SFO runways), and gradually rise along the approach slopes and sides of the runways. The FAA considers any objects that penetrate these imaginary surfaces as potential obstructions to air navigation. Obstructions may occur without compromising safe air navigation, but they must be marked, lighted, and noted on aeronautical publications to ensure that pilots can see and avoid them.

#### **4.10.3.2 State**

##### **State Planning Law: General Plans and Specific Plans**

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: Airport Influence Area Notification**

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 Airport Influence Area.

## **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.

### **Senate Bill 743**

SB 743, which was signed into law in 2013 and is codified in Section 21099 of the California Public Resources Code, intends to better align California Environmental Quality Act (CEQA) transportation impact analysis practices and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. SB 743 is addressed in several locations in this EIR, including Section 4.1, *Approach to Environmental Analysis*; Section 4.15, *Transportation and Circulation*; and Section 4.18, *Impacts Found Not to Be Significant*.

SB 743 required the Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within Transit Priority Areas (TPAs) and allows OPR to extend use of these metrics beyond TPAs. OPR selected vehicle miles traveled (VMT) as the preferred transportation impact metric and applied their discretion to require its use statewide. OPR issued a *Technical Advisory on Evaluating Transportation Impacts in CEQA* document in 2018, which contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. As further described in both Section 4.1, *Approach to Environmental Analysis*, and Section 4.15, *Transportation and Circulation*, of this EIR (refer to subsections 4.1.4 and 4.15.3.2), the updated CEQA Guidelines that implement SB 743 established that vehicle delay, or level of service (LOS), can no longer be used as a criterion for identifying significant transportation impacts for most projects under CEQA. The City has adopted VMT thresholds and methodology (Resolution 77-2020) in accordance with OPR's 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*.

As described in Section 4.1, *Approach to Environmental Analysis*, of this EIR, SB 743 also created a new CEQA statutory exemption for certain qualifying projects that are consistent with a specific plan for which an EIR has been certified. Pursuant to Public Resources Code Section 21155.4 and CEQA Guidelines Section 15182, which implement SB 743, future projects that meet the following criteria qualify for a statutory exemption from CEQA:

1. The project is a qualifying residential, employment center, or mixed-use project;
2. The project is located within a 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.

Public Resources Code Section 21099(a)(1) defines an “employment center project” 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 [TPA].” A TPA is defined as an area within 0.5 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 (Public Resources Code Section 21099(a)(7)). As shown in **Figure 3-6** in Chapter 3, *Project Description*, of this EIR, the entire project site is within a designated TPA.<sup>5</sup> Accordingly, the project allowed by the Specific Plan and analyzed in this EIR would qualify as an employment center project for purposes of CEQA, and future projects under the Specific Plan may qualify for this exemption.

Lastly, as discussed in Section 4.1, *Approach to Environmental Analysis*, and Section 4.18, *Impacts Found Not to Be Significant*, of this EIR, SB 743 also establishes that aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects if the project is located on an infill site, is within a TPA, and is a residential, mixed-use residential, or employment-center project. Because the project meets the three criteria, this EIR does not consider aesthetics or parking in determining the significance of impacts under CEQA.

### 4.10.3.3 Regional

#### Plan Bay Area 2040

The Metropolitan Transportation Commission (MTC) 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. Plan Bay Area 2040 also identifies TPAs in the Bay Region, which are discussed above, under Section 4.10.3.2; as discussed in that section, the entire project site is located within a TPA.

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 MTC 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 within PDAs maximizes travel choices, reduces dependency on driving, takes advantage of existing infrastructure capacity, and reduces pressure to develop open space. The Specific Plan area is outside of but adjacent to two Plan Bay Area PDAs; the Transit

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<sup>5</sup> Metropolitan Transportation Commission. 2020. MTC Policy Map Explorer. Available: <https://mtc.maps.arcgis.com/apps/View/index.html?appid=1b8fdd83aa564aa180a59e9b7c4583ca>. Accessed September 13, 2021.

Corridors and El Camino Real PDA.<sup>6</sup> The San Bruno Transit Corridors PDA is a 700-acre triangular shaped area that includes several developing commercial corridors: San Mateo Avenue, El Camino Real, San Bruno Avenue, and Huntington Avenue. The area includes the San Bruno BART station, Tanforan shopping mall, and The Crossings development site at its northern end. At its southern end is the San Bruno Caltrain station, which has been relocated to the corner of San Bruno and San Mateo Avenues. The El Camino Real PDA is a multi-city PDA set along a one-quarter-mile buffer along El Camino Real, extending the length of the corridor through downtowns and central business districts in Daly City, Colma, South San Francisco, San Bruno, Millbrae, Burlingame, San Mateo, Belmont, San Carlos, Redwood City, Menlo Park, and unincorporated neighborhoods in San Mateo County.<sup>7</sup>

### **Comprehensive Airport Land Use Compatibility Plan<sup>8</sup>**

The 2012 SFO Airport Land Use Compatibility Plan (ALUCP), prepared by the City/County Association of Governments of San Mateo County (C/CAG), is a state-mandated land use compatibility plan that addresses the compatibility of surrounding land uses in local jurisdictions with airport operations. Compatibility topics include the Airport Influence Area, safety compatibility policies that affect land use, building height restrictions related to critical aeronautical surfaces, and noise.

According to the 2012 ALUCP, the Airport Influence Area, which is the geographic area that is subject to the land use compatibility considerations identified in the ALUCP, is divided into two areas: Area A and Area B. Area A encompasses all of San Mateo County and the incorporated cities within it, all of which is overflowed by aircraft flying to or from SFO at least once per week at altitudes of 10,000 feet (or less) 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. Area B roughly follows the noise compatibility and safety zone contours. As shown in Figures IV-1 and IV-2 of the ALUCP, the Specific Plan area is located within both Area A and Area B, requiring ALUC review for consistency with ALUCP policies.

### **Safety Compatibility Zones**

The ALUCP identifies specific 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 Policy SP-1 identifies Safety Compatibility Zones within certain distances from the airport to minimize potential hazards and improve public safety. There are five safety compatibility zones in the vicinity of SFO; these range from Zone 1, which is a broad area surrounding

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<sup>6</sup> Metropolitan Transportation Commission. 2021. Priority Development Area—Transit Priority Area Overlay (2017). Available: <https://mtc.maps.arcgis.com/apps/View/index.html?appid=1b8fdd83aa564aa180a59e9b7c4583ca>. Accessed September 13, 2021.

<sup>7</sup> City/County Association of Governments of San Mateo County. 2017. San Mateo County Priority Development Area (PDA) Investment & Growth Strategy. San Mateo County Priority Development Area (PDA) Investment & Growth Strategy. Available: [https://ccag.ca.gov/wp-content/uploads/2014/05/Final-Draft\\_PDA\\_IGS\\_5\\_11\\_17-Meeting.pdf](https://ccag.ca.gov/wp-content/uploads/2014/05/Final-Draft_PDA_IGS_5_11_17-Meeting.pdf). Accessed February 24, 2021.

<sup>8</sup> City/County Association of Governments of San Mateo County. 2012. Comprehensive Airport Land Use Compatibility for the Environs of San Francisco International Airport. Available: [https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated\\_CCAG\\_ALUCP\\_November-20121.pdf](https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated_CCAG_ALUCP_November-20121.pdf). Accessed: October 27, 2020.

airport facilities, to Zone 5, which is the area immediately surrounding airport runways. Policy SP-2 defines incompatible land uses within each Safety Compatibility Zone.

As shown in **Figure 4.10-1, p. 4.10-10**, a small portion of the Specific Plan area's southwest corner (overlapping with the Phase 1 site) is located within Zone 4, the Outer Approach/Departure Zone. ALUCP Table IV-2 *Safety Compatibility Criteria* presents information regarding incompatible land uses for each safety compatibility zone. The compatibility criteria for Zone 4 are the same as those in Zone 3, which are less restrictive than Zones 1 and 2 given that the area is subject to less accident risk by virtue of the lower density of overflights in this area. In Zone 4, stadiums, arenas, and uses accommodating potentially vulnerable populations are incompatible. Hazardous uses and critical public utilities are classified as uses to be avoided within Zone 4, meaning that those uses "should not be permitted unless no feasible alternative is available."

Policy SP-3 provides additional details regarding the hazardous use limitations in Table IV-2, *Safety Compatibility Criteria*, including limitations on aboveground fuel storage tanks; toxic chemical or fireworks manufacturing facilities; and medical or biological research facilities that use utilize certain hazardous and/or infectious agents.

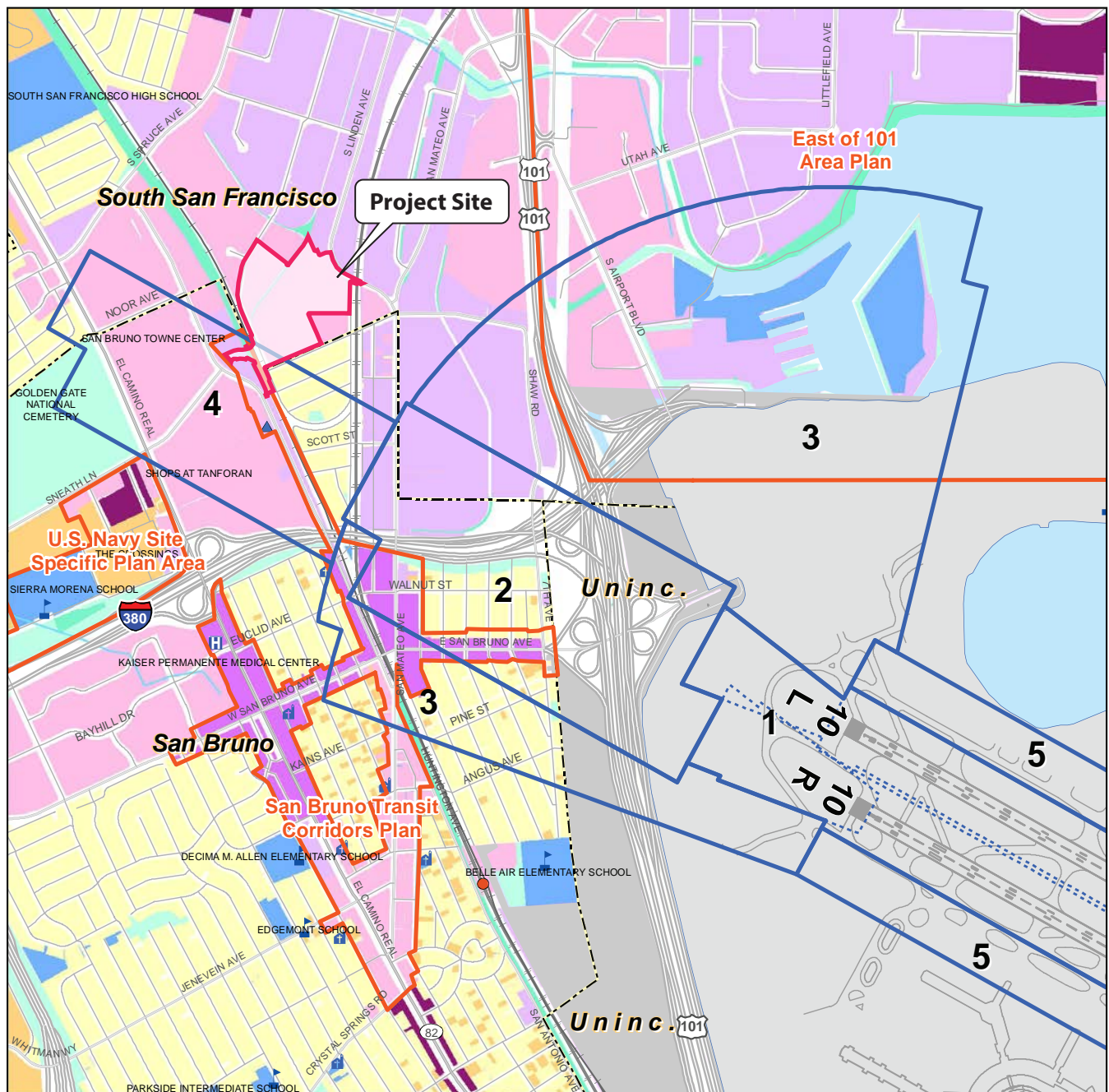
### Height

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. The criteria used in establishing these policies is based on the Title 14 of the CFR, Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace, which governs the FAA's review of proposed construction exceeding certain height limits, defines airspace obstruction criteria, and provides for FAA aeronautical studies of proposed construction. The ALUCP incorporates the provisions in Title 14 CFR Part 77; Appendix F of the ALUCP describes the FAA airspace review process and the extent of FAA authority related to airspace protection. As noted in the ALUCP, the height of new development must be maintained below defined obstacle clearance surfaces, referred to as critical aeronautical surfaces.

As identified in the ALUCP, the project site is located within the Federal Aviation Regulation Part 77 sphere of influence, which is the boundary established to regulate obstructions to airspace navigation, including building heights. Based on these requirements, the ALUCP establishes height restrictions within specific contours of airport facilities throughout Area A and Area B in which the Specific Plan area is located; specifically, as shown in **Figure 4.10-2, p. 4.10-11**, there is a contour to establish a limit of 125 feet above ground level running northeast-southwest located south of the Specific Plan area and a contour to establish a limit of 150 feet north of the Specific Plan area. As also shown in **Figure 4.10-2, p. 4.10-11**, the Specific Plan area falls within the 100 to 150 feet above ground level range for SFO's critical aeronautical surfaces.

### Noise

The ALUCP contains noise compatibility policies 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. As shown in **Figure 4.10-3, p. 4.10-12**, the airport's forecasted 70 dB CNEL noise contour bisects the Specific Plan area in a diagonal northwest-to-southeast direction. The portion of the Specific Plan south of the contour line (approximately half of the Specific Plan area, including the Phase 1 site) is within the 70 dB noise compatibility zone, while the portion north of the contour line



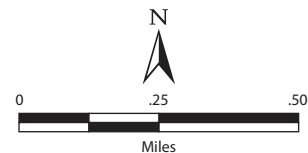
#### LEGEND

##### Safety Compatibility Zones

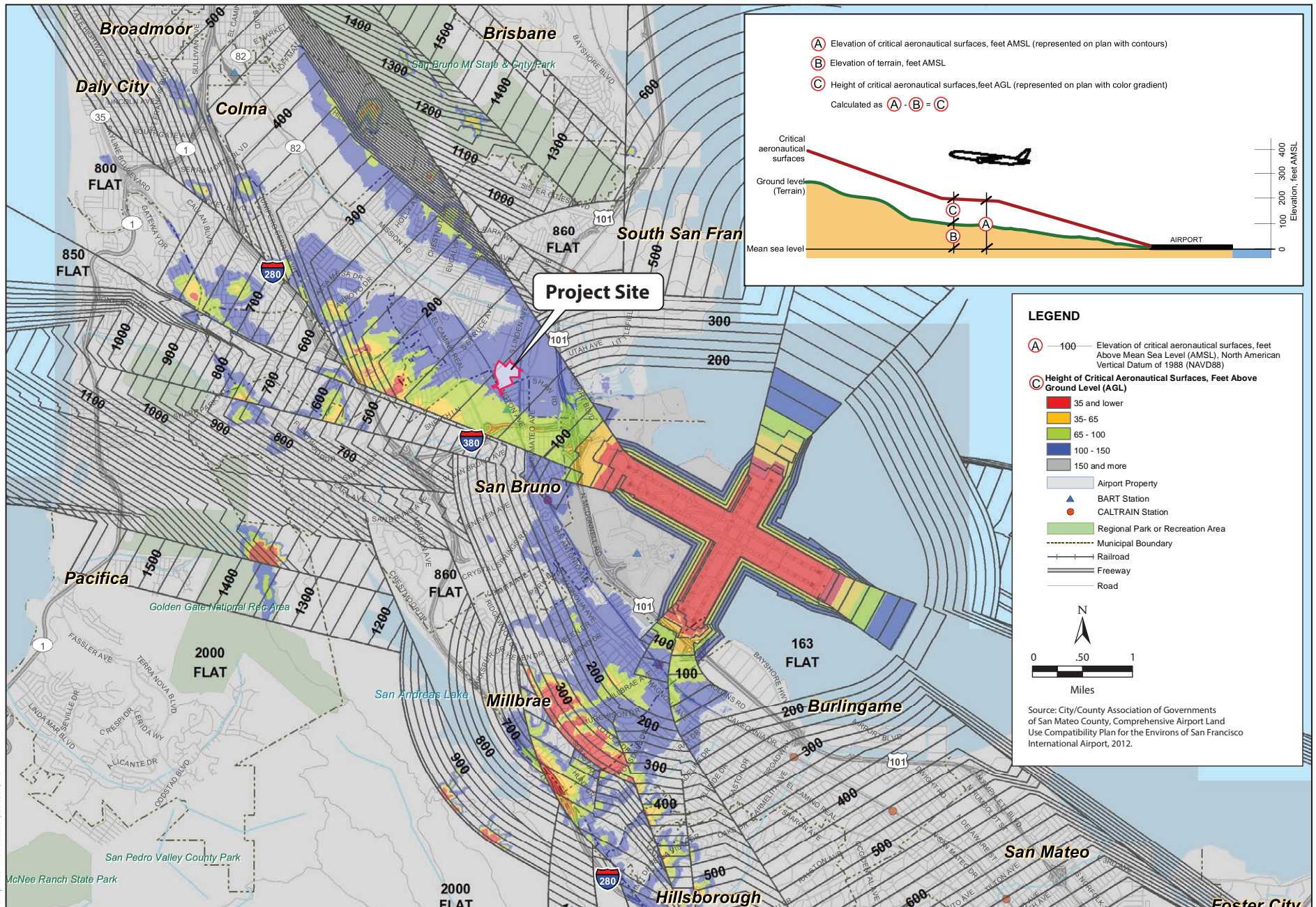
- 1 - Runway Protection Zone-Object Free Area
- 2 - Inner Approach/Departure Zone
- 3 - Inner Turning Zone
- 4 - Outer Approach/Departure Zone
- 5 - Sideline Zones

##### Planned Land Use Per General Plans

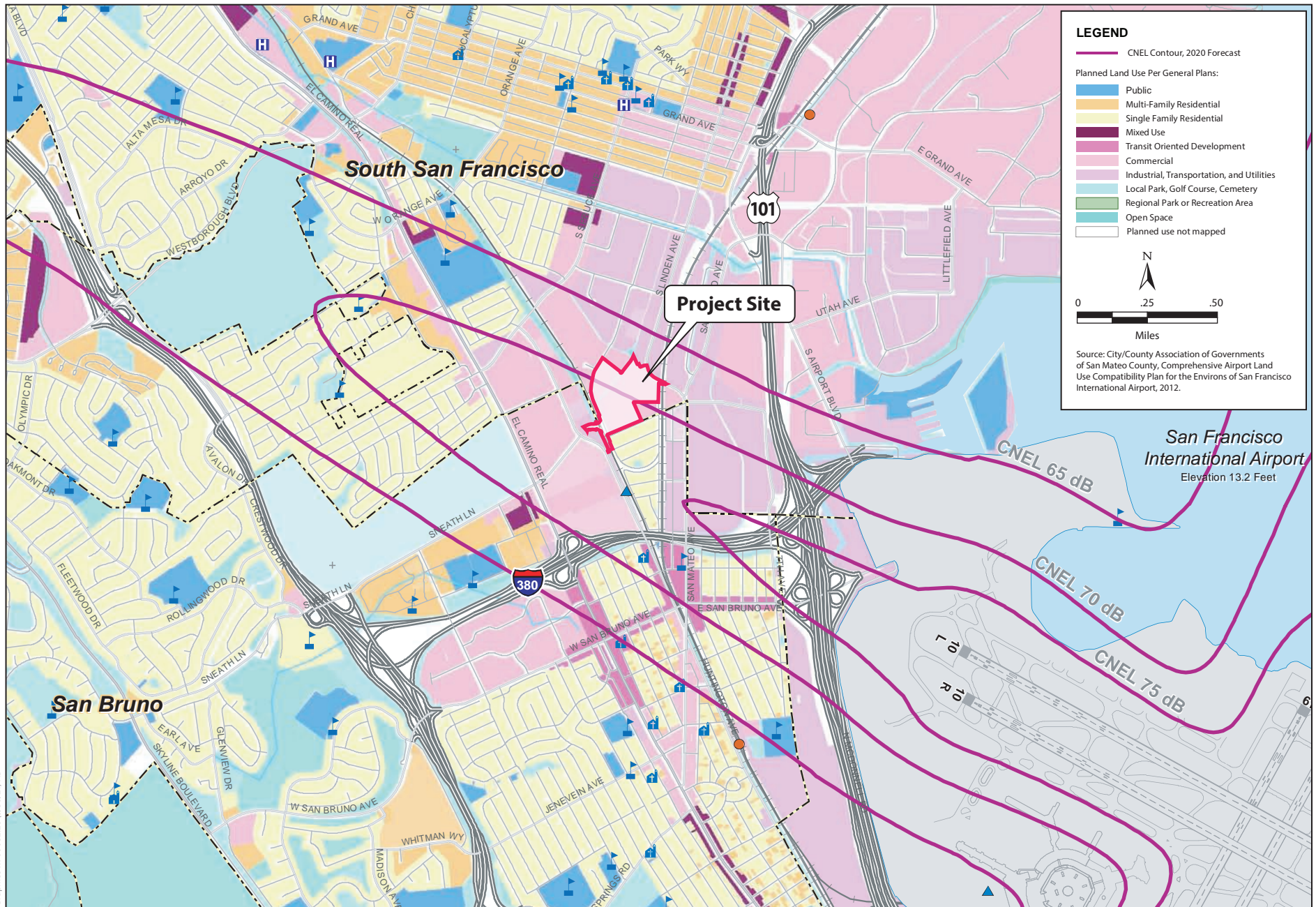
Public	Commercial
Multi-Family Residential	Industrial, Transportation, and Utilities
Single Family Residential	Local Park, Golf Course, Cemetery
Mixed Use	Regional Park or Recreation Area
Transit Oriented Development	Open Space



Source: City/County Association of Governments of San Mateo County, Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport, 2012.



**Figure 4.10-2**  
**ALUCP Critical Aeronautical Surfaces**



**Figure 4.10-3**  
**ALUCP Noise Compatibility Zones**

is within the 65 dB noise compatibility zone. Areas within the boundaries of CNEL contour map are subject to ALUCP noise compatibility policies set forth in Policy NP-2, Airport/Land Use Compatibility Criteria and Table IV-1 of the ALUCP. According to Table IV-1 in the ALUCP, commercial land uses, including office, business and professional, and general retail uses, in addition to industrial and production uses, are considered compatible uses in all of the designated noise compatibility zones in the ALUCP without restrictions.

## **BART Station Access Policy**

The BART Station Access Policy is relevant to the project based on the project site's proximity to the San Bruno BART Station, the proposed pedestrian, bicycle, and vehicular circulation improvements within BART's jurisdiction, and comments received on the NOP. In June 2016, the BART Board adopted the new Station Access Policy to guide access practices and investments through 2025. The policy identified six key goals and three strategy areas:<sup>9</sup>

### **Goals**

- Safer, Healthier, Greener – Advance the region's safety, public health, and greenhouse gas (GHG) and pollution-reduction goals.
- More Riders – Invest in station access to connect more riders cost effectively, especially where and when BART has available capacity.
- More Productive and Efficient – Manage access investments, programs, and current assets to achieve goals at the least cost.
- Better Experience – Be a better neighbor, and strive for an excellent customer experience, including on the first and last mile of the trip to and from BART stations.
- Equitable Services – Invest in access choices for all riders, particularly those with the fewest choices.
- Innovation and Partnerships – Be an innovation leader, and establish durable partnerships with municipalities, access providers, and technology companies.

### **Strategies**

- Plan, Innovate and Partner – Plan for systemwide access mode shift to reduce drive alone rates; partner with interested stakeholders to improve access to the BART system, and; plan all BART facilities to be accessible to all users.
- Invest and Implement – Invest in the pedestrian and bicycle network, on and off BART property; invest in transit connections; prioritize station access investments that support reverse peak travel, and; invest in strategic parking resources.
- Manage and Assess – Manage existing assets and; regularly collect station access data.

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<sup>9</sup> Bay Area Rapid Transparent. 2016. BART Station Access Policy. Adopted June 9. Available: <https://www.bart.gov/about/planning/station-access/policy>. Accessed November 2, 2020.

#### 4.10.3.4 Local

##### South San Francisco General Plan<sup>10</sup>

The City's General Plan, originally adopted in 1999 and amended since that time, provides a vision for long-range physical and economic development of the city, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The General Plan provides a vision for long-range physical and economic development of the city, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The General Plan is currently being updated as part of the *Shape SSF 2040 General Plan*.<sup>11</sup> The General Plan remains active until completion and adoption of the new general plan. The General Plan contains the following chapters:

- Land Use
- Planning Sub-Areas
- Transportation
- Parks, Public Facilities, and Services
- Economic Development
- Open Space and Conservation
- Health and Safety
- Noise

The General Plan chapters above cover six of the seven elements required by state law (land use, open space, conservation, housing, circulation, noise, and safety) and optional elements (Planning Sub-Areas and Economic Development), described below, that address local concerns and regional requirements. The seventh required element is the Housing Element, which is updated on a more regular basis than the General Plan and published under a separate volume. The Planning Sub-Areas Element of the General Plan complements citywide policies included in the Land Use and other elements. The project site is located within the Lindenville Planning Sub-Area.

Of the eight elements included in the General Plan, this section addresses the four elements that apply to land use: Land Use, Planning and Sub-Areas, Transportation, and Parks, Public Facilities, and Services. The remaining four elements are addressed within the relevant topical sections of this EIR. For example, the Noise Element and the policies relevant to the project are addressed in Ch. 4.11, *Noise and Vibration*, of this EIR.

**Table 4.10-1, p. 4.10-44**, presented at the end of this section, outlines the City of South San Francisco General Plan goals and policies that have been identified as applicable to the project and

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<sup>10</sup> City of South San Francisco. 1999. South San Francisco General Plan. Available: <https://www.ssf.net/departments/economic-community-development/planning-division/general-plan>. Accessed: October 18, 2020.

<sup>11</sup> City of South San Francisco. 2020. Shape SSF 2040 General Plan. Available: <https://shapessf.com/>. Accessed: September 13, 2021.

adopted for the purpose of avoiding or mitigating an environmental effect, and describes environmental effects for both the project and Phase 1.

### Land Use Element

The General Plan contains a Land Use Element,<sup>12</sup> which provides a framework to guide land use decision making citywide. As discussed in Section 4.10.2, according to the Land Use Element, nearly all of the Specific Plan area (approximately 26.2 acres) is designated as Office, a designation intended to provide sites for administrative, financial, business, professional, medical, and public offices in locations proximate to BART or Caltrain stations. A small, approximately 0.3-acre portion of the Specific Plan area is designated as Parks and Recreation; this is a linear strip that runs in a southwest-northeast direction, corresponding with an historic rail easement. The maximum permitted floor area ratio (FAR) in the Office designation is 1.0, but increases may be permitted up to a total FAR of 2.5 for development meeting specific transportation demand management (TDM), structured parking, off-site improvement, or specific design standards criteria. In addition, the General Plan provides that the zoning ordinance can provide specific exceptions to FAR limitations for uses with low employment densities. The General Plan Update, *Shape SSF 2040 General Plan* proposes to maintain the existing land use designation for the bulk of the Specific Plan area in the preferred alternative, which would ultimately serve as the basis for the updated Land Use Element, although it renames the designation from Office to Business and Professional Office.<sup>13</sup>

The Land Use Element includes the following guiding and implementing policies applicable to the project:

- 2-G-1: Preserve the scale and character of established neighborhoods, and protect residents from changes in non-residential areas.
- 2-G-2: Maintain a balanced land use program that provides opportunities for continued economic growth, and building intensities that reflect South San Francisco's prominent inner bay location and excellent regional access.
- 2-G-3: Provide land use designations that maximize benefits of increased accessibility that will result from BART extension to the city and adjacent locations.
- 2-G-7: Encourage mixed-use residential, retail, and office development in centers where they would support transit, in locations where they would provide increased access to neighborhoods that currently lack such facilities, and in corridors where such developments can help to foster identity and vitality.
- 2-G-8: Provide incentives to maximize community orientation of new development, and to promote alternative transportation modes.
- 2-I-3: Undertake planned development for unique projects or as a means to achieve high community design standards, not to circumvent development intensity standards.
- 2-I-4: Require all new developments seeking an FAR bonus set forth in Table 2.2-2 to achieve a progressively higher alternative mode usage. The requirements of the TDM Program are detailed in the Zoning Ordinance. (Amended by Resolution 98-2001, adopted September 26,

<sup>12</sup> City of South San Francisco. 1999. *City of South San Francisco General Plan. Land Use Element*. Available: <https://www.ssf.net/home/showdocument?id=15526>. Accessed: October 18, 2020.

<sup>13</sup> City of South San Francisco, 2021. *Shape SSF Preferred Alternative*. Available: <https://shapessf.com/preferredalternative/>. Accessed: September 13, 2021.

2001). The requirements of the TDM program for projects seeking an FAR bonus are based on the percentage trip reduction that is achieved.

- 2-I-9: Ensure that any design and development standards and guidelines that are adopted reflect the unique patterns and characteristics of individual neighborhoods.
- 2-I-22: Require that all future development conforms with the relevant height, aircraft noise, and safety policies and compatibility criteria contained in the most recently adopted version of the San Mateo County Comprehensive Airport Land Use Plan for the environs of San Francisco International Airport, with the exception of projects deemed appropriate by the City Council, and to the extent necessary, approved through the local agency override process, consistent with Public Utilities Code Section 21670 et seq.

### **Planning Sub-Areas Element**

The General Plan's Planning Sub-Areas Element features policies to complement citywide policies included in the Land Use and other elements.<sup>14</sup> Some of these sub-areas have detailed area plans, specific plans, or redevelopment plans. Where appropriate, the General Plan provides guidance as to how these plans may need to be changed to conform with the policy direction provided by the General Plan. The sub-areas, 14 in all, were collectively derived from analysis of land use and urban design patterns and existing and needed planning efforts and activities. The Planning Sub-Areas Element does not impose density or height standards separate from those standards found in the General Plan's Land Use element.

The Planning Sub-Areas Element identifies the Specific Plan area as located within the Lindenville Planning Sub-Area, which, according to the General Plan, is the only large-scale industrial area in the city located west of U.S. 101, and is comprised of a range of commercial uses including small business parks. The Lindenville Planning Sub-Area is an area that the City has identified as needing "upgrading and rehabilitation."<sup>15</sup> (P. 3-14.). Access to the area is constrained, and often trucks must negotiate downtown streets to access U.S. 101 at the Grand Avenue intersection, creating bottlenecks at major entryways to the city of South San Francisco. The General Plan indicates that the Lindenville Planning Sub-Area's proximity to the San Bruno BART station will provide opportunities for redevelopment. To that end, the General Plan includes a number of policies that encourage redevelopment and infrastructure improvements in the Lindenville Planning Sub-Area, such as providing better connectivity to San Bruno BART station, including via extension of South Linden Avenue through the Specific Plan area, enhancing the appearance of the area by undertaking streetscape and other improvements, improving the buffering between industrial areas in the Lindenville Planning Sub-Area and surrounding residential neighborhoods, and encouraging new office development in areas designated for that use.

The Planning Sub-Areas Element includes the following guiding and implementing policies applicable to the project:

- 2-G-1: Preserve the scale and character of established neighborhoods, and protect residents from changes in non-residential areas.

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<sup>14</sup> City of South San Francisco General Plan, Chapter 3 p. 3-11 to 3-18. 1999.

<sup>15</sup> City of South San Francisco General Plan, Chapter 3 p. 3-14. 1999.

- 3.2-G-1: Maintain the industrial character in the area from roughly the Spruce Avenue corridor in the west to San Mateo Avenue in the east, and south of Railroad Avenue to the San Bruno BART station.
- 3.2-G-2: Develop new streets and through connections to facilitate truck movement; improve access to U.S. 101, and provide better connectivity between the proposed San Bruno BART station and downtown.
- 3.2-G-3: Enhance the appearance of the area by undertaking streetscape and other improvements.
- 3.2-G-4: Improve buffering between industrial areas in Lindenville and surrounding residential neighborhoods.
- 3.2-I-2: Encourage new office development to locate in Downtown, Business Commercial, or Office districts; not in areas designated as Mixed Industrial. Ensure that existing offices continue to be recognized as conforming uses in the Zoning Ordinance.
- 3.2-I-7: Establish requirements for common loading and parcel access for Lindenville in the Zoning Ordinance.
- 3.2-I-10: Prepare and implement a streetscape improvement plan for South Linden Avenue and South Spruce Avenue that recognizes the streets' role as the connector between the San Bruno BART station and downtown.
  - The San Bruno BART station, south of Lindenville, will be exactly one mile away from the center of downtown, whereas the South San Francisco station will be at a two-mile distance. Thus, Lindenville streets, especially South Linden Avenue, are likely to become important gateways into the city in general, and downtown in particular. These considerations should be reflected in streetscape, signage and other urban design aspects. Components of the streetscape plan could include emphatic street trees that help visually link Downtown with the BART station, street lighting to ensure pedestrian safety, undergrounding of overhead utilities, construction of sidewalks, pedestrian crosswalks, and bike lanes if feasible.
- 3.2-I-12: Minimize any new curb-cuts on Victory and South Linden avenues; encourage site access from side streets wherever possible.
- 3.2-I-14: Provide new street extensions in Lindenville as outlined in Chapter 4: Transportation. These include a new interchange at South Airport Boulevard/U.S. 101, extension of Victory Avenue to the interchange, extension of South Linden Avenue to the San Bruno BART station, extension of Mission Street to South Maple Avenue, and Shaw Avenue extension north to Produce Avenue.
- 3.2-I-15: Explore the feasibility of requiring the new development in the Lindenville area to pay its fair share for any interchange and other improvements in the area.

### Transportation Element

The General Plan contains a Transportation Element, which includes policies, programs, and standards to enhance capacity and provide new linkages.<sup>16</sup> The Transportation Element of the

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<sup>16</sup> City of South San Francisco. 1999. *City of South San Francisco General Plan. Transportation Element*. Amended by Resolution 136-2014, adopted December 10, 2014. Available: <https://www.ssf.net/home/showdocument?id=15530>. Accessed: October 18, 2020.

General Plan proposes a new street extension that crosses the Specific Plan area between South Linden and South Maple Avenues extending to Sneath Lane, which is intended to provide a connection between downtown South San Francisco and the San Bruno BART station, to provide vehicle and truck access to Interstate 380, and to increase overall access to the Lindenville Planning Sub-Area. The *Shape SSF 2040 General Plan* preferred land use alternative maintains the proposed new street extension that crosses the Specific Plan area between South Linden and South Maple Avenues. The Transportation Element includes the following policies applicable to the land use elements of the project:

- 4.2-G-1: Undertake efforts to enhance transportation capacity, especially in growth and emerging employment areas such as in the East of 101 area.
- 4.2-G-8: Use the Bicycle Master Plan to identify, schedule, and implement roadway improvements that enhance bicycle access.
- 4.2-G-9: Use the Pedestrian Master Plan to identify, schedule, and implement roadway improvements that enhance pedestrian access.
- 4.2-G-10: Make efficient use of existing transportation facilities and, through the arrangement of land uses, improved alternate modes, and enhanced integration of the various transportation systems serving South San Francisco, strive to reduce the total number of vehicle miles traveled.
- 4.2-G-11: Coordinate local actions with regional agencies, and undertake active efforts to undertake transportation improvements.
- 4.2-G-13: Integrate Complete Streets infrastructure and design features into street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation. (Amended by Resolution 136-2014, adopted December 10, 2014)
- 4.2-G-14: Make Complete Streets practice a routine part of South San Francisco's everyday operations. (Amended by Resolution 136-2014, adopted December 10, 2014)
- 4.2-G-17: Exempt development within one-quarter mile of a Caltrain or BART station, or a City-designated ferry terminal, from LOS standards
- 4.2-I-2: Undertake street improvements identified in Figures 4-1 and 4-2, [...] South Linden Avenue extension to Sneath Lane. This would dramatically increase access to Lindenville and enable trucks to get to I-380 without going through Downtown. This connection is also extremely critical to ensure connection between Downtown and the (San Bruno) BART Station.
- 4.2-I-7: Continue to require that new development pays a fair share of the costs of street and other traffic and transportation improvements, based on traffic generated and impacts on service levels. Explore the feasibility of establishing impact fee, especially for improvements required in the Lindenville area. (Amended by Resolution 98-2001, adopted September 26, 2001)
- 4.2-I-10: In planning, designing, and constructing Complete Streets: Include infrastructure that promotes a safe means of travel for all users along the right of way, such as sidewalks, shared-use paths, bicycle lanes, and paved shoulders.
  - Include infrastructure that facilitates a safe crossing of the right of way, such as accessible curb ramps, crosswalks, refuge islands, and pedestrian signals; such infrastructure must meet the needs of people with different types of disabilities and people of different ages.

- Ensure that sidewalks, crosswalks, public transportation stops and facilities, and other aspects of the transportation right of way are compliant with the Americans with Disabilities Act and capable of meeting the needs of people with different types of disabilities, including mobility impairments, vision impairments, hearing impairments, and others. Ensure that the South San Francisco Americans with Disabilities Act Transition Plan includes a prioritization method for enhancements and revise if necessary.
- Prioritize the incorporation of street design features and techniques that promote safe and comfortable travel by pedestrians, bicyclists, and users of public transportation, such as traffic-calming circles, additional traffic-calming mechanisms, narrow vehicle lanes, raised medians, dedicated transit lanes, transit priority signalization, transit bulb-outs, road diets, a high level of street connectivity, and physical buffers and separations between vehicular traffic and other users.
- Ensure use of additional features that improve the comfort and safety of users; provide pedestrian-oriented signs, pedestrian-scale lighting, benches and other street furniture, bicycle parking facilities, and comfortable and attractive public transportation stops and facilities. Encourage street trees, landscaping, and planting strips, including native plants where possible, in order to buffer traffic noise and protect and shade pedestrians and bicyclists. Reduce surface water runoff by reducing the amount of impervious surfaces on the streets.
- 4.2-I-11: In all street projects, include infrastructure that improves transportation options for pedestrians, bicyclists, and users of public transportation of all ages and abilities.
- Ensure that this infrastructure is included in the planning, design, approval, construction, operational, and maintenance phases of street projects.
- Incorporate this infrastructure into all construction, reconstruction, retrofit, maintenance, and alteration projects as well as the of repair of streets, bridges, and other portions of the transportation network.
- 4.3-G-2: Provide safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers.
- 4.3-G-5: In partnership with employers, continue efforts to expand shuttle operations.
- 4.3-I-4: Require provision of secure covered bicycle parking at all existing and future multifamily residential, commercial, industrial, and office/ institutional uses.
- 4.3-I-6: Expand pedestrian facilities in new development, using the PMP [Pedestrian Master Plan] for pedestrian design guidelines and to identify other improvements that should be considered for projects proposed in areas that are identified in PMP concept plans. (Amended Resolution 26-2014, adopted February 26, 2014)
- 4.3.I-10: As part of redesign of South Linden Avenue (see Section 3.2), provide continuous sidewalks on both sides of the street, extending through the entire stretch of the street from San Bruno BART Station to downtown.
- 4.4-1-11: As part of any development in Lindenville or East of 101, require project proponents to provide sidewalks and street trees as part of frontage improvements for new development and redevelopment projects.

- 4.3-I-14: Undertake a program to improve pedestrian connections between the rail stations—South San Francisco and San Bruno BART stations and the Caltrain Station—and the surroundings. Components of the program should include:
  - Installing handicapped ramps at all intersections as street improvements are being installed;
  - Constructing wide sidewalks where feasible to accommodate increased pedestrian use;
  - Providing intersection “bulbing” to reduce walking distances across streets in Downtown, across El Camino Real and Mission Road, and other high use areas;
  - Continuing with the City’s current policy of providing pedestrian facilities at all signalized intersections; and
  - Providing landscaping that encourages pedestrian use.
- 4.3-I-18: Establish parking standards to support trip reduction goals by:
  - Allowing parking reductions for projects that have agreed to implement trip reduction methods, such as paid parking, and for mixed use development.
  - Requiring projects larger than 25 employees to provide preferential parking for carpools and vanpools. (Amended by Resolution 98-2001, adopted September 26, 2001)

### **Parks, Public Facilities, and Services Element**

The General Plan contains a Parks, Public Facilities and Services Element, which includes policies and standards to parks and recreation, educational facilities, and public facilities (amended by City Council Resolution 89-2015, adopted July 22, 2015).<sup>17</sup> The Parks, Public Facilities, and Services Element includes the following policies applicable to the project:

- 5.1-G-1: Develop additional parkland in the city, particularly in areas lacking these facilities, to meet the standards of required park acreage for new residents and employees.
- 5.1-G-5: Develop linear parks in conjunction with major infrastructure improvements and along existing public utility and transportation rights-of-way.
- 5.1-I-4: Develop new parks in locations and sizes shown on Figure 5-1. (Lindenville Linear Park. Another rail-to-trail conversion, this park measures 1.6 acres in size and is located between South Maple Avenue and Tanforan Avenue near the City boundary with San Bruno. This park should provide picnic facilities and benches for nearby office workers.)

### **South San Francisco Zoning Ordinance<sup>18</sup>**

The City of South San Francisco Ordinance (Zoning Ordinance), Title 20 of the South San Francisco Municipal Code, is the primary document that implements the General Plan. As shown in **Figure 3-3** in Chapter 3, *Project Description*, of this EIR, the majority of the Specific Plan area (approximately

<sup>17</sup> City of South San Francisco. 1999. *City of South San Francisco General Plan. Parks, Public Facilities and Services Element*. Amended by City Council Resolution 89-2015, adopted July 22, 2015. Available: <https://www.ssf.net/home/showdocument?id=468>. Accessed: October 18, 2020.

<sup>18</sup> City of South San Francisco. 2020. South San Francisco Municipal Code. Title 20: Zoning. Chapter 20.090 Commercial, Office, and Mixed-Use Districts Available: <http://qcode.us/codes/southsanfrancisco/view.php?topic=20>. Accessed: September 13, 2021.

26.2 acres), which corresponds with the Office land use designation under the General Plan, is currently zoned Business and Professional Office (BPO) under the Zoning Ordinance. The small 0.3-acre portion of the Specific Plan area corresponding with the Parks and Recreation land use designation is zoned Parks and Recreation. The BPO zoning district, which implements the General Plan's Office designation, is intended to provide sites for development as administrative, financial, business, professional, medical, and public offices at locations close to BART or Caltrain stations. Retail uses are limited to business services, food service and convenience goods for those who work in the area. New residential uses, including group residential facilities, are not permitted, but live-work uses are allowed. The maximum FAR for administrative, financial, and other office uses is typically 1.0, but increases up to a maximum FAR of 2.5 may be permitted for development that meets specific transportation demand management, off-site improvement, or design requirements or criteria. Building heights within the BPO district may not exceed 80 feet.

### **South San Francisco Climate Action Plan<sup>19</sup>**

The City of South San Francisco's Climate Action Plan (CAP) was adopted in 2014 and includes goals, policies, and strategies to reduce the city's greenhouse gas (GHG) emissions, in compliance with Assembly Bill (AB) 32 and Senate Bill (SB) 375. GHG reduction strategies identified in the plan include a Development Review Checklist to identify applicable plan measures for discretionary projects. Measures identified in the plan, which include bike-share programs or facilities for employees, renewable energy feasibility, Leadership in Energy and Environmental Design (LEED) certification, and more, can be considered mandatory conditions of approval or may be adopted as mitigation.

The City's CAP is currently undergoing an update as part of the General Plan Update. The 2014 CAP remains active until completion and adoption of the new CAP. Additional detail related to the 2014 CAP is presented under Section 4.7, *Greenhouse Gas Emissions*, of this EIR.

### **San Bruno Plans and Policies**

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within San Bruno in areas that are completely developed, consisting of rights-of-way and easements developed with roadway, sidewalk, and utility improvements; the project would not develop any new structures or new land uses in San Bruno. The specific off-site improvements that are wholly or partially located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. Development of these improvements would be subject to applicable San Bruno plans and policies.

This section identifies and evaluates the proposed project's consistency with relevant land use and planning policies from the San Bruno General Plan, Transit Corridors Plan, and Walk 'n Bike Plan as related to the portions of the off-site improvements located within San Bruno's jurisdiction. For

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<sup>19</sup> City of South San Francisco. 2014. City of South San Francisco Climate Action Plan. Prepared by PMC. Available: <https://www.ssf.net/home/showdocument?id=5640>. Accessed: October 29, 2020.

additional discussion of the proposed project's consistency with San Bruno's transportation-focused plans and policies, refer to Section 4.15, *Transportation and Circulation*, of this EIR. For additional discussion of San Bruno's infrastructure-focused plans and policies, including the City's Green Infrastructure Plan, see Section 4.17, *Utilities and Service Systems*, of this EIR.

### **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 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.

As described in Chapter 3, *Project Description*, the project proposes certain circulation and infrastructure improvements that are located within San Bruno, but would not develop any new structures or new land uses in San Bruno. As such, this analysis focuses on the proposed off-site improvements located within San Bruno's jurisdiction and evaluates consistency with relevant policies from the San Bruno General Plan Land Use and Urban Design and Transportation elements.

### ***Land Use and Urban Design Element***

The San Bruno General Plan contains a Land Use Element, which provides a framework to guide land use decision making citywide.<sup>20</sup> The San Bruno Land Use Element includes the following guiding and policies applicable to the proposed off-site improvements in the City of San Bruno:

- LUD-9: Provide safe and comfortable pedestrian routes through residential areas by requiring sidewalks on both sides of streets, planting trees adjacent to the curb, allowing on-street parking, and minimizing curb cuts.
- LUD-33: Plant additional street trees along the existing buffer between Huntington Avenue and the residential frontage road due east of the San Bruno BART Station.

### ***Transportation Element***

The Transportation Element of the San Bruno General Plan includes guiding and implementing policies addressing all modes of transportation in San Bruno, including roadway and highway systems, scenic corridors, transit systems, and pedestrian and bicycle facilities.<sup>21</sup> 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.

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<sup>20</sup> City of San Bruno. 2009. City of San Bruno General Plan, Land Use & Urban Design Element. Adopted March 24. Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24009>. Accessed December 16, 2020

<sup>21</sup> City of San Bruno. 2009. City of San Bruno General Plan, Transportation Element. Adopted March 24. Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24017>. Accessed September 14, 2021.

Table 4-8 and Figure 4-7 in the Transportation Element identify recommended intersection improvements at the following intersections in San Bruno to maintain acceptable LOS:

- A. San Mateo Avenue/Huntington Avenue
- B. El Camino Real/Noor Avenue
- C. Skyline Boulevard/San Bruno Avenue
- D. Skyline Boulevard/College Drive/Berkshire Drive
- E. Skyline Boulevard/Westborough Boulevard/Sharp Park Road
- F. Skyline Boulevard/Sneath Lane
- G. Sneath Lane/Sequoia Avenue
- H. El Camino Real/San Mateo Avenue

The Transportation Element includes the following policies that are applicable to the proposed off-site improvements in the City of San Bruno:

- T-A: Provide for efficient, safe, and pleasant movement for all transportation modes— vehicles, bicycles, transit, and pedestrians.
- T-B: Maintain acceptable levels of service for vehicular movement along the city’s street network. Acceptable level of service could vary based on characteristics of the area under consideration.<sup>22</sup>
- T-F: Provide efficient local transit—such as a shuttle system—to the BART and Caltrain stations to avoid dependence on individual motor vehicles.
- T-G: Protect residential areas from congestion and associated noise resulting from BART and Caltrain spillover traffic.
- T-2: Ensure that all transportation improvements— roadway, transit, bicycle, and pedestrian—are designed and constructed according to Americans with Disabilities Act standards. Improve existing facilities so they are compliant with American Disability Act standards.
- T-6: Maintain LOS standards for intersections for AM and PM peak periods as shown in Figure 4-2.
- T-22: Apply turning restrictions to major arterials during peak hours to improve general traffic flow.
- T-47: Improve multi-modal access—specifically for pedestrians, cyclists, and transit passengers—to the BART and Caltrain stations through improvements along Huntington Avenue.
- T-70: Identify funding for and implement as a priority bicycle/pedestrian paths along the BART and Caltrain track alignments (Huntington Avenue and Herman Avenue) within the city limits. Coordinate with the Linear Park planned in South San Francisco and Millbrae.
- HS-17: Synchronize traffic signals between El Camino Real, Sneath Lane, Huntington Avenue, and San Bruno Avenue, to improve traffic flows into and out of the San Bruno BART Station.

<sup>22</sup> This policy is included for informational purposes because under SB 743, levels of service or similar measures of traffic congestion are no longer considered a significant impact under CEQA.

**San Bruno Transit Corridors Plan<sup>23</sup>**

The San Bruno Transit Corridors Plan was adopted by the San Bruno City Council on February 12, 2013. The plan articulates the community's vision for revitalized commercial corridors in proximity to the San Bruno Caltrain Station and BART Station. The plan presents a vision and specific steps to improve the public and private realms within the Transit Corridors Area, which includes street frontages along El Camino Real, San Bruno Avenue, San Mateo Avenue, and Huntington Avenue in San Bruno. The Transit Corridors Plan outlines detailed policies, design guidelines, and development standards to steer future public and private realm improvements in the Transit Corridors Area. The project's proposed off-site improvements along Huntington Avenue overlap with the Transit Corridors Area.

Chapter 6 of the Transit Corridors Plan includes public realm design guidelines that apply to development within City-owned roadways, medians, sidewalks, planter strips, and public open spaces within the Transit Corridors Area. The intent of the public realm design guidelines is to enhance the pedestrian environment along the Transit Corridors Area's key roadways, as well as within its public open spaces, facilitating a balance between the needs of transit, automobiles, bicyclists, and pedestrians, including those with disabilities. Furthermore, the design guidelines provide opportunities for "green" design features in the public realm, supporting San Bruno's sustainability goals. The following public realm design guidelines are relevant to the off-site improvements along Huntington Avenue:

- A1-1: Reduce pedestrian crossing distance at crossing locations by utilizing features such as bulb-outs in parking lanes between parking spaces and at corners. Provide well-designed traffic calming devices on along corridors, including traffic circles, bollards, bulb-outs and chicanes to create pleasant livable environment.
- A1-3: Provide adequate buffer between pedestrian zones and vehicle driving zones consisting of landscaping and/or curbside parking to ensure safe and appealing pedestrian environment within the Pedestrian Emphasis Zone.
- A2-2: Ensure that all crosswalks have ramps and warning strips that comply with Americans with Disabilities Act standards.
- A2-5: Provide bulb-outs along El Camino Real, San Bruno Avenue, and Huntington Avenue at intersections and pedestrian crossing locations.
- A2-6: Consider development of new mid-block pedestrian crossing locations on El Camino Real, San Bruno Avenue and Huntington Avenue when justified by pedestrian traffic study, in conjunction with site development or in response to existing pedestrian demand.
- A2-7: Encourage the design of corner bulb-outs at intersections to function as pocket plazas with pedestrian amenities such as landscaping, seating, trash receptacles, and bicycle racks.
- A3-1: Ensure that all streets have continuous sidewalks conforming to the Americans with Disabilities Act standard of a minimum width of five feet. Where possible, encourage a minimum six-foot wide pedestrian zone to provide comfortable pedestrian circulation.

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<sup>23</sup> City of San Bruno. 2014. *Transit Corridors Plan*. Adopted February 12, 2013. Updated 2014. Available at: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24032>. Accessed February 24, 2021.

- A4-1: Provide both pedestrian-oriented and automobile-oriented street lighting within the whole Transit Corridors Plan area, with first priority to the Pedestrian Emphasis Zones designed to meet established lighting standards to provide safe and comfortable pedestrian environment.
- A4-2: Provide pedestrian-friendly streetscape amenities—including seating, trash receptacles and public art—at key nodes along El Camino Real, San Bruno Avenue, San Mateo Avenue, and Huntington Avenue.

The Transit Corridors Plan also includes private realm development standards and design guidelines for future development located on privately-owned lots and parcels in the Transit Corridors Area. The private realm development standards and design guidelines do not apply to the proposed off-site improvements along Huntington Avenue because the improvements are located within the public right-of-way.

### **San Bruno Walk ‘n Bike Plan<sup>24</sup>**

The City of San Bruno Walk ‘N Bike Plan, adopted in July 2016, promotes mobility within the City of San Bruno by outlining specific improvements to ensure that walking and biking are safe, comfortable, and convenient. The plan includes improvements for pedestrian projects, the citywide bicycle network, and programs/initiatives.

The Walk ‘n Bike Plan Map 6, *Proposed Pedestrian Projects*, shows one proposed pedestrian improvement within the off-site improvement areas – referred to as Streetscape Improvement “X-23” located along Huntington Avenue from the intersection of Sneath Avenue heading south to San Bruno Avenue West. The Walk ‘N Bike Plan provides a key for each identified improvement on Map 6, *Proposed Pedestrian Projects*, and indicates that Streetscape Improvement “X-23” is a type “I1” improvement which refers to crossing improvements at the intersection of two major streets. The Walk ‘N Bike Plan describes I1 pedestrian improvements as follows, which includes planning-level cost estimates.

- Proposed at wide signalized intersections with multiple through lanes and turn pockets, large corner curb radii that allow for high-speed right turns, and long pedestrian crossing distances.
- Improvements consist of installing corner bulb-outs to shorten pedestrian crossing distance and reduce corner curb radii, removing turn pockets where capacity is not needed, narrowing travel lanes to provide a pedestrian refuge, and providing supplemental signal faces and signal push buttons or other detectors, as needed.
- Planning-level cost estimate: \$350,000 per intersection.

Map 7, *Citywide Bikeway Network*, of the plan includes one continuous proposed bicycle circulation improvements within the off-site improvement areas, located along Huntington Avenue and traveling south past the San Bruno BART station. The portion adjacent to the BART station is identified on Map 7 as a “Proposed Separated Bikeway (Class IV).” The Walk ‘N Bike Plan also provides a key for each identified improvement on Map 7, *Citywide Bikeway Network*, and indicates that the Proposed Separated Bikeway (Class IV) is anticipated as a 0.8-mile-long improvement identified as a type “B6/B7” improvement. The Walk ‘N Bike Plan describes B6/B7 improvements as follows, which includes planning-level cost estimates.

<sup>24</sup> City of San Bruno. 2016. Walk ‘n Bike Plan, p. 64. and p. 82 Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?blobid=27455>. Accessed February 25, 2021.

- Proposed for corridors where separated bikeways could be added without any road widening, and where bicyclists could benefit from additional separation from vehicular traffic.
- Improvements consist of, at minimum, painted bike lanes, a painted horizontal buffer, and raised posts or other vertical feature. On-street parking could be incorporated into the design as an additional buffer for the bicycle facility (B6).
- An enhanced improvement could construct the bikeway separation with a raised concrete curb buffer rather than the painted buffer (B7).
- Planning-level cost estimate: Painted / raised post buffer (B6), \$250,000 per mile; raised curb buffer (B7), \$1.25 million per mile.

Figure 6 of the plan provides a conceptual design for the Huntington Avenue Proposed Separated Bikeway (Class IV) improvement. However, the Walk 'n Bike plan states that provided concept drawings, including Figure 6, will require a “closer look and more detailed design drawings before improvements are approved and implemented.” Moreover, the Walk 'n Bike plan states that the conceptual design for the Huntington Avenue Proposed Separated Bikeway (Class IV) improvement would require further traffic study and coordination with Caltrain to evaluate potential impacts to local traffic and circulation patterns.

## 4.10.4 Impacts and Mitigation Measures

This section describes the impact analysis related to land use and planning for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

### 4.10.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant land use and planning impact if it would:

- Physically divide an established community, or
- Result in a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### 4.10.4.2 Approach to Analysis

The evaluation of land use and planning impacts of the proposed project is based on a review of the applicable land use plans and policies described in the *Regulatory Framework* section above. Per the significance criteria addressed above, a project that involves a change or intensification in land use would not be considered to have a significant impact related to land use and planning unless the project would physically divide an established community. In addition, conflicts of a project with land use policies do not, in and of themselves, constitute significant environmental impacts related to land use and planning unless the conflicts are with a land use plan, policy or regulation 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. The analysis provided under Impact LU-2 evaluates this topic for that limited purpose.

**Table 4.10-1, p. 4.10-44**, presented at the end of this section, outlines the City of South San Francisco General Plan 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 1.

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(s) with review and permitting authority 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, zoning and related land use controls, as a whole. In addition, the broader general plan consistency determination considers all evidence in the record concerning the project characteristics, its desirability, and its economic, social, and other non-environmental effects. Discussion of certain policy compatibility, while not required under CEQA, is provided for informational purposes. It does not present a comprehensive analysis of project conformity with applicable local, regional, and state plans and policies. Such analyses would be undertaken independent of the CEQA process, as part of the decision-makers' action to approve, modify, or disapprove the project or aspects thereof.

Moreover, implementation of certain off-site improvements would require approval of certain entitlements and approvals from public agencies other than the City, such as the City of San Bruno and BART. This EIR is intended to provide CEQA clearance for approvals that may be required from other agencies to implement the off-site improvements, so this section analyzes the various land use and planning policies that would apply to those off-site improvements. The specific policy determination by those agencies of whether the relevant off-site improvements conform to the relevant land use controls, as a whole would be made by the decision-making body of the jurisdiction(s) with review and permitting authority.

To the extent that physical environmental impacts may result from conflicts with land use plans or policies, this EIR discloses and analyzes these physical impacts under the relevant environmental topic sections in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR. For example, impacts resulting from a change or intensification of employment on the project site are embodied in environmental impacts related to the capacity of existing facilities and services to adequately serve the Specific Plan area, such as those described in Section 4.12, *Population and Housing*, Section 4.13, *Public Services*, Section 4.14, *Recreation*, Section 4.15, *Transportation and Circulation*, and Section 4.17, *Utilities and Service Systems*. Physical impacts of construction and/ or operation of the proposed project on the environment are embodied in physical impacts related to environmental topics such as Section 4.2, *Air Quality*, Section 4.4, *Cultural Resources*, Section 4.5, *Energy*, Section 4.7, *Greenhouse Gas Emissions*, Section 4.8, *Hazards and Hazardous Materials*, Section 4.9, *Hydrology and Water Quality*, Section 4.11, *Noise and Vibration*, and Section 4.16, *Tribal Cultural Resources*.

### **Buildout Scenario Studied (Office Scenario and Life Sciences Scenario)**

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the proposed project would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the proposed project: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses 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.

The Office Scenario would develop up to seven buildings with office uses up to seven stories tall and the four-story amenity building for a total of 2,800,000 square feet (FAR of approximately 2.4). The Life Sciences Scenario would develop up to nine buildings with R&D uses, including laboratory and office spaces, up to six stories tall and the four-story amenity building for a total of 2,025,050 square feet (FAR of approximately 1.75).

The Office and Life Sciences Scenarios may result in different types and magnitudes of environmental impacts, and each section of this EIR presents the scenario that would generate the most severe impact on that topic. For the analysis of potential impacts related to the physical division of an established community (Impact LU-1) and 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 (LU-2), the environmental analysis addresses all potential development that would be permitted under the Specific Plan rather than a particular buildout scenario.

#### 4.10.4.3 Impact Evaluation

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

##### ***Project***

Overall, the proposed project would not physically divide an established residential or neighborhood-serving commercial community. The existing site is characterized by the existing commercial and industrial uses, and is surrounded by industrial, commercial, and residential uses. The proposed project, during Phase 1 and project buildout, would construct new office/R&D uses within the Specific Plan area under the proposed Specific Plan, in addition to the off-site improvements. The proposed project would not introduce new uses to the project vicinity in a manner that would physically divide the existing uses. Instead, the proposed project would develop a transit-oriented commercial campus, including professional offices, R&D facilities, and supporting commercial services (e.g., retail, fitness, restaurants, etc.) in proximity to BART and Caltrain stations.

More specifically, 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 does not involve the construction of any of the linear features discussed above and would not remove any means of access. Instead, the project would develop multimodal transportation improvements, including a new east-west roadway to connect downtown South San Francisco to the San Bruno BART station, streetscape enhancements, and bicycle and pedestrian improvements, 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. Specifically, the project’s proposed new streets, pedestrian network improvements to access to the San Bruno BART station, minor reconfiguration to Centennial Way Trail, and roadway reconfigurations for compatibility with a future grade separation of the Caltrain would support connectivity with neighborhoods surrounding the project site. As such, the proposed project’s

improvements to existing roadways and infrastructure would not introduce new physical divisions and instead would provide better multi-modal connectivity between existing surrounding residential communities, the project site, and local or regional destinations.

The existing configuration of the proposed Specific Plan area does not include any internal circulation. While the development of new office buildings under the project would result in larger building footprints than what currently exists within the Specific Plan area, and development within the Specific Plan area would improve connectivity within that area and to the surrounding community by incorporating new or rehabilitated vehicle roadways, transit access, and bicycle and pedestrian facilities.

The Specific Plan, under which development within the Specific Plan area would be regulated, incorporates policies for prioritizing and facilitating transit and pedestrian connectivity between the project site and local mass transit services, which would further promote connectivity between the project site and the surrounding community. In addition, the project would promote infill development in an existing urbanized area. Rather than divide the existing community, the project would reduce the potential for conflict between differing land uses through streetscape improvements and policies that would apply to new development, including:

- **Circulation Improvements:** The project would implement a network of internal private roadways that would provide access to parking, loading, and building areas within the Specific Plan area, in addition to several off-site improvements that would improve circulation within the project site vicinity. These improvements include construction of the new Southline Avenue providing an east-west connection between Huntington and South Linden Avenues (refer to **Figure 3-16** in Chapter 3, *Project Description*),<sup>25</sup> pedestrian improvements, new bike facilities, and new off-site improvements.
  - Development of Southline Avenue between Huntington Avenue and South Linden Avenue would provide two travel-lanes in each direction, a center median, a Class II bike lane on both sides, a sidewalk separated from the roadway by a landscaped planting area, and new signalization at the new intersection at Huntington Avenue and at the new intersection mid-block within the Specific Plan area.<sup>26</sup>
  - The on-site pedestrian facilities would provide on-site walkable connectivity between buildings, on-site vehicle and bicycle parking areas, the Southline Commons open space area (described in Chapter 3, *Project Description*, Section 3.6.2.10), mobility hubs, and connectivity across Southline Avenue (refer to **Figure 3-18** in Chapter 3, *Project Description*, which provides a conceptual layout of potential pedestrian facilities located on and adjacent to the project site).
  - Bicycle circulation would be integrated throughout the project site and would include Class II bike lanes on both sides of Southline Avenue, and Class III bike routes on internal roadways where bicyclists and slower-moving vehicles would share the road. Short-term bicycle parking would be provided on surface-level bike racks, located adjacent to the Southline Retail Plaza (described in Chapter 3, *Project Description*, Section 3.6.2.10) and

<sup>25</sup> As discussed under Impact LU-2, the proposed extension of Southline Avenue is consistent with South San Francisco General Plan policies calling for the extension of South Linden Avenue to the San Bruno BART station.

<sup>26</sup> The project would involve other new signalized intersections, including: Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue at the project entrance and at South Linden Avenue / Dollar Avenue/ Southline Avenue.

proximate to building entries. Long-term bicycle parking would be provided in below- and above-grade parking structures.

- The project's off-site circulation improvements (refer to **Figure 3-18** in Chapter 3, *Project Description*) would reconfigure Tanforan Avenue to create a cul-de-sac, reducing residential cut-through traffic, and provide new signalizations of certain intersections located outside of the Specific Plan area, subject to review and/or approvals by the City of South San Francisco, City of San Bruno, BART, SamTrans, the Peninsula Corridor Joint Powers Board (Caltrain), Union Pacific Railroad (UPRR), and/or the California Public Utilities Commission, as may be required.
- **Land Use and Building Design:** The Specific Plan would establish new land use development standards and design guidelines for development within the Specific Plan area, including various chapters on these topics including: Chapter 2, Land Use Plan & Development Standards, Chapter 5, Design Guidelines, and Chapter 6, Implementation. The Specific Plan design guidelines are intended to implement a number of the Specific Plan objectives including to promote the high-quality development envisioned for the Specific Plan area; promote cohesive design and identify for the Specific Plan area that respects the Specific Plan area's industrial past and reflects the overall character of Lindenville; provide well-designed retail and publicly available open spaces to increase community participation and usage of the Specific Plan area; create new publicly accessible open spaces including plazas, courtyards, and green spaces within the Specific Plan area; and promote walkability and provide opportunities for social interaction.

In summary, given that the project would not introduce any physical barriers to the project site and would improve connectivity within the community through design guidelines, development standards, and proposed improvements, the impact would be ***less than significant***. No mitigation is required.

### **Phase 1**

The Phase 1 improvements include the majority of the project's off-site circulation improvements addressed above. Many of these improvements would occur at the outset of the project, such that connectivity would be improved within Phase 1. Specifically, improvements to the Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue intersection, Huntington Avenue, Tanforan Avenue, and the Southline Avenue/South Linden Avenue/Dollar Avenue intersection would occur under Phase 1. The impacts of Phase 1 would be the same as the impacts of the project as a whole because Phase 1 is a component of the project, which would not introduce any physical barriers to the surrounding community. Phase 1 would also be subject to the design guidelines and development standards set forth in the Specific Plan. Phase 1 development impacts related to the physical division of an established community would therefore be ***less than significant***. No mitigation is required.

**Impact LU-2: 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; Phase 1: Less than Significant)**

## Federal Plans

### 14 Code of Federal Regulations Part 77

#### *Project*

In accordance with the proposed Specific Plan, the maximum heights of new buildings within the Specific Plan area would comply with the height regulations and restrictions as established by FAA and ALUCP criteria. Pursuant to these proposed height regulations, new buildings exceeding the FAA Part 77 height limits will be subject to FAA review and may be required to provide marking and/or lighting, or such buildings may not be acceptable to the FAA if found to have unexpected impacts to the safety or efficiency of operations at SFO. Under federal law, the project applicant is required to comply with all notifications and other requirements described in 14 CFR Part 77. The project applicant would be required to file Form 7460-1, Notice of Proposed Construction or Alteration, with the FAA to determine whether the project would constitute a hazard to air navigation, and if any airspace safety design features (e.g., lighting) would be necessary. Compliance with FAA and ALUCP regulations (also addressed under the analysis related to *Comprehensive Airport Land Use Compatibility*, below) would ensure that the project does not result in new buildings that exceed applicable ALUCP building height limits and would therefore be consistent with the ALUCP criteria. Therefore, impacts of the project related to conflicts with 14 CFR Part 77 would be **less than significant**. No mitigation is required.

#### *Phase 1*

The impacts of Phase 1 would be the same as the impacts of the project because Phase 1 is a component of the project. The impacts related to consistency with the 14 CFR Part 77 would be **less than significant**. No mitigation is required.

## Regional Plans

### Plan Bay Area

#### *Project*

As discussed in Section 4.10.3, *Regulatory Framework*, 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 TPAs, 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. As stated above, the entirety of the project site is within a TPA. Because the Specific Plan encourages the concentration of development within a TPA, it is 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 on an area adjacent to the Transit Corridor and El Camino Real PDA. The project also calls for pedestrian- and bicycle-friendly streets within the Specific Plan area, 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.

While residential uses are not permitted at the project site under the City's current General Plan or Zoning Ordinance, and housing would not be an allowed use under the Specific Plan, the new employment generated by the Specific Plan could indirectly generate new residents and housing in the City. As discussed in Section 4.12, *Population and Housing*, of this EIR, employment growth under the Office Scenario (the worst case scenario) could generate approximately 1,705 new residents and 559 new households in the City. The project's indirect population and housing growth would be within the range of anticipated growth for the San Francisco-Oakland-Hayward core-based statistical area (CBSA)<sup>27</sup> 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 is required.

### ***Phase 1***

The impacts of Phase 1 would be the same as the impacts of the project because Phase 1 is a component of the project, which would be consistent with the goals of Plan Bay Area 2040. Phase 1 impacts related to conflicts with Plan Bay Area 2040 would therefore be ***less than significant***. No mitigation is required.

## **Comprehensive Airport Land Use Compatibility Plan**

### ***Project***

As discussed under Section 4.10.3, *Regulatory Setting*, the ALUCP outlines the types of land uses that are compatible in the vicinity of SFO. The project site is located within both Airport Influence Area A and Area B. With respect to ALUCP safety zones, as shown in **Figure 4.10-1, p. 4.10-10**, the southwest corner of the Specific Plan area, overlapping with the Phase 1 site, is located within Zone 4, the Outer Approach/Departure Zone. As shown in **Figure 4.10-2, p. 4.10-11**, the Specific Plan area falls within a 100 to 150 feet above ground level contour range per SFO's critical aeronautical surfaces map. As shown in **Figure 4.10-3, p. 4.10-12**, a portion of the Specific Plan area is within the 65dB CNEL noise contour, and approximately half of the Specific Plan area, including the Phase 1 site, is within the 70dB CNEL noise contour.

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, adoption or amendment of a specific plan, and/or zoning amendment are proposed within Airport Influence Area B of an adopted Comprehensive Land Use Plan, a referral must be made to the San

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<sup>27</sup> The United States Office of Management and Budget defines a CBSA as a multi-county area anchored by an urban center of at least 10,000 people plus adjacent counties that are socioeconomically tied to the urban center by commuting. The San Francisco-Oakland-Hayward CBSA comprises Alameda, Contra Costa, Marin, San Francisco and San Mateo counties.

Francisco Airport Land Use Commission for a consistency determination. Given that implementation of the proposed project would include certain qualifying land use actions, including General Plan amendments, adoption of the Southline Specific Plan, and a rezoning, the project would be required to be referred to the Airport Land Use Commission for a determination of consistency with the relevant policies of the 2012 SFO ALUCP regarding safety, height, noise.

**Safety.** As noted above, a small portion of the southwest corner of the Specific Plan area is located within Zone 4, the Outer Approach/Departure Zone. The remainder of the Specific Plan area is not within any of the ALUCP's established Safety Compatibility Zones. ALUCP Policy SP-2 and Table IV-2 define incompatible uses within each Safety Compatibility Zone. Incompatible uses for Zone 4 include: Biosafety Level 3 and 4 facilities, children's schools, large child day care centers, hospitals, nursing homes, stadiums, arenas, hazardous uses (other than biosafety Level 3 and 4 facilities), and critical public utilities.<sup>28</sup> The project would include development within that portion of the site located within Zone 4 during Phase 1; however, development would be limited to streetscape, open space, and the four-story commercial amenities use building; these uses are not restricted under the ALUCP and so the project is not inconsistent with the ALUCP policies regarding its safety zones.

**Height Limitations.** As noted above, the Specific Plan area falls within a 100 to 150 feet above ground level contour range per SFO's critical aeronautical surfaces map. Specifically, there is a contour to establish a limit of 125 feet above ground level running northeast-southwest located south of the project site and a contour to establish a limit of 150 feet north of the site. Development within the Specific Plan area would be subject to certain height limitations pursuant to the FAA and ALUCP regulations. In accordance with the proposed Specific Plan, the maximum heights of new buildings within the Specific Plan area would comply with the height regulations and restrictions as established by FAA and ALUCP criteria; applicable maximum height requirements would vary across the Specific Plan area, up to a maximum of approximately 120 feet. Compliance with FAA and ALUCP regulations would ensure that the project does not result in new buildings that exceed applicable ALUCP building height limits and would therefore be consistent with the ALUCP criteria. Therefore, development of the Specific Plan would be consistent with height clearances established in the ALUCP.

**Noise.** As noted above, the northeast portion of the Specific Plan area falls within the 65 dB noise contour, and the southwest portion of the Specific Plan area is within the 70 dB noise contour. Areas within the boundaries of CNEL contour map are subject to ALUCP noise compatibility policies set forth in Policy NP-2, Airport/Land Use Compatibility Criteria and Table IV-1 of the ALUCP. According to Table VI-1 in the ALUCP, commercial land uses, including office, business and professional, and general retail uses, in addition to industrial and produces uses, are considered compatible uses in all of the designated noise compatibility zones in the ALUCP without restrictions. The project proposes a range of commercial land uses, such as office, R&D, and related amenity uses, all of which are permissible in the 65 dB and 70 dB noise compatibility zones without restrictions. Refer to Section 4.11, *Noise and Vibration*, of this EIR, for an analysis of the project's consistency with SFO ALUCP noise policies.

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<sup>28</sup> City/County Association of Governments of San Mateo County. 2012. Comprehensive Airport Land Use Compatibility for the Environs of San Francisco International Airport, p. VI-31—32. Available: [https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated\\_CCAG\\_ALUCP\\_November-20121.pdf](https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated_CCAG_ALUCP_November-20121.pdf). Accessed: October 27, 2020.

Given the project's consistency with the ALUCP's policies regarding safety, heights, noise, and notification requirements, the project would result in a ***less-than-significant*** land use impact with respect to the ALUCP's policies. No mitigation is required.

### ***Phase 1***

The impacts of Phase 1 would be the same as the impacts of the project because Phase 1 is a component of the project. Given that the Phase 1 site is within the ALUCP Zone 4, the Outer Approach/Departure Zone but that the uses proposed under Phase 1 are not restricted uses, and the project overall 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 is required.

## **BART Station Access Policy**

### ***Project***

While development within the Specific Plan area would not be subject to specific policies identified in the 2016 BART Station Access Policy, the proposed off-site improvements under Phase 1 that are located within BART jurisdiction (refer to Table 3-5 in Chapter 3, *Project Description*, of this EIR) would require certain BART construction approvals pursuant to its applicable policies, including the 2016 BART Station Access Policy. The proposed off-site improvements would support the goals and strategies identified in the 2016 BART Station Access Policy. Specifically, pedestrian access to the San Bruno BART station would be improved along a portion of Huntington Avenue, primarily within City of San Bruno and BART jurisdiction, from the new intersection at Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue. Proposed off-site improvements would also include extension of the Centennial Way Trail to the San Bruno BART station, providing a 15- to 17-foot-wide multi-use path along the west side of Huntington Avenue. The project would also create a new shared bicycle and pedestrian path on the east side of Huntington Avenue and a new crosswalk and pedestrian bulb-out on the south side of the SamTrans Transit Center driveway to provide a more direct connection between the BART station to the eastern sidewalk along Huntington Avenue. Improvements would also include installing transit signal priority devices on the signal masts at the Huntington/Southline Avenues intersection for SamTrans and shuttle buses to create a dedicated signalized bus entrance to the SamTrans transit center.

These off-site improvements would directly support the BART Station Access Policy goal to provide a "Better Experience,... including the first and last mile of the trip to and from BART stations," and the strategy of "Invest and Implement – Invest in the pedestrian and bicycle network, on and off BART property; invest in transit connections... and; invest in strategic parking resources." Therefore, impacts of the project related to conflicts with the 2016 BART Station Access Policy would be ***less than significant***. No mitigation measures are required.

### ***Phase 1***

The impacts of Phase 1 would be the same as the impacts of the project because the proposed off-site improvements in BART's jurisdiction would be completed under Phase 1. Therefore, the impacts related to consistency with the 2016 BART Station Access Policy would be ***less than significant***. No mitigation is required.

## Local Plans and Regulations

The project includes features located within the Cities of South San Francisco and San Bruno; as such, local land use plans and regulations that cover the various elements of the project site include the policies from both cities. City of South San Francisco plans and regulations considered include the City's General Plan, Zoning Ordinance, and CAP. City of San Bruno plans and regulations considered include the City of San Bruno General Plan, Transit Corridors Plan, and Walk 'n Bike Plan.

### South San Francisco General Plan

#### *Project*

The General Plan Land Use Element identifies policies intended to shape future development within the City and its respective planning areas and districts. The current General Plan classification for most of the Specific Plan area is Office.<sup>29</sup> This classification permits supporting commercial uses, such as the project's amenity building that may include restaurant uses, a private cafeteria for campus tenants, a private gym for campus tenants, and an auditorium/event space. The purpose of the Specific Plan is to permit and regulate the orderly development of the Specific Plan area in furtherance of the City's General Plan, as it may be amended for implementation of the Specific Plan. While the General Plan is the primary guide for growth and development in South San Francisco, the Specific Plan focuses on the unique characteristics of the Specific Plan area and sets forth land use regulations and policies that reflect the vision for redevelopment of the Specific Plan area. To that end, the Specific Plan defines the Southline Campus (S-C) district unique to the Specific Plan area and describes the following: development standards and permitted uses that shall be applied to the land use district; circulation and mobility guidelines; design guidelines; conceptual infrastructure improvements; and implementation procedures for future development within the Specific Plan area.

Implementation of the Specific Plan would require certain amendments to the General Plan to ensure consistency between the General Plan and the Specific Plan, including amending Figure 2-3, *Special Area Height Limitations*, to increase the allowable building height on the Specific Plan area from 80 feet up to 120 feet, consistent with FAA and ALUCP criteria. This revision is consistent with the intent of General Plan Figure 2-3, *Special Area Height Limitations*, which states that for areas subject to airport-related height limitations, building heights must be in accordance with the limits indicated in the most recently adopted ALUCP. The ALUCP has been amended and updated since the 1999 General Plan was adopted by the City, and effective height regulations and limitations are not more precisely defined. The project proposes maximum heights that would be consistent with FAA and ALUCP regulations, and as such, would be consistent with the policies for height limits in this area.

A General Plan amendment would also be required to re-designate the approximately 0.3-acre linear parcel designated as Parks and Recreation, corresponding with a former rail spur, to the Office designation, consistent with the remainder of the Specific Plan area. In addition, the General Plan Land Use Diagram would be updated to reflect the creation of the new Specific Plan land use classification and its application to the Specific Plan area. Other minor General Plan amendments

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<sup>29</sup> The General Plan Update, *Shape SSF 2040 General Plan*, which is currently underway, proposes to maintain the existing land use designation for the bulk of the Specific Plan area in the preferred alternative, which would ultimately serve as the basis for the updated Land Use Element, although it renames the designation from Office to Business and Professional Office.

may be required to ensure consistency with the Specific Plan, as deemed necessary by the City prior to approval of the project. Approval of the requested General Plan amendments would make the project consistent with the General Plan. The potential environmental effects that could result from approving the General Plan amendments and developing the proposed new and intensified land uses at the Specific Plan area are evaluated throughout Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR.

The proposed Specific Plan and associated Southline Campus (S-C) land use district are consistent with existing surrounding development patterns and with several goals of the General Plan to encourage redevelopment and infrastructure improvements in the Lindenville Sub-Area, such as providing better connectivity to San Bruno BART station, including via extension of South Linden Avenue; enhancing the appearance of the area by undertaking streetscape and other improvements; improving the buffering between industrial areas in the Lindenville Planning Sub-Area and surrounding residential neighborhoods; and encouraging new office development in areas designated for that use, as set forth under various policies under the Land Use and Planning Sub-Areas Elements including Policies 2-I-22; 2-G-3; 2-G-8; 3.2-G-2; 3.2-G-3; and 3.2-I-14.

The project would incorporate circulation improvements that directly implement the General Plan's vision for the Specific Plan area, including to establish Southline Avenue, a new east-west connection between Sneath Avenue and S. Linden Avenue that would provide connection to the San Bruno BART station and improved connectivity within the surrounding vicinity. Overall, the Specific Plan would implement the General Plan's vision for Lindenville Planning Sub-Area. No substantive conflicts have been identified for the proposed project with a General Plan policy adopted for the purpose of avoiding or mitigating an environmental effect.

**Table 4.10-1, p. 4.10-44**, presented at the end of this section, outlines the City of South San Francisco General Plan 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 1. This table 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 EIR. As shown, the proposed project would not be inconsistent with any of the General Plan policies identified in **Table 4.10-1, p. 4.10-44**.

As described in **Table 4.10-1, p. 4.10-44**, the project was found to be consistent with the relevant land use and planning related policies from the Land Use, Planning Sub-Areas, Transportation, Parks, Public Facilities, and Services Elements of the General Plan. The proposed General Plan Amendments, including the land use classifications described above and revisions to Figure 2-3, *Special Area Height Limitations*, would, on balance, meet the overall intent of the land use policies as described in detail below and in **Table 4.10-1, p. 4.10-44**. Given that the project is generally consistent with the General Plan's goals for the Specific Plan area 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 is required.

### **Phase 1**

Approval of the requested General Plan amendments would make Phase 1 consistent with the General Plan. The potential environmental effects that could result from approving the General Plan

amendments and developing the proposed new and intensified land uses proposed as part of Phase 1 are evaluated throughout Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR. As described in **Table 4.10-1, p. 4.10-44**, Phase 1 is found to be consistent with the Land Use, Planning Sub-Areas, Transportation, Parks, Public Facilities, and Services, and Economic Elements of the General Plan. Given that Phase 1 is consistent with the General Plan's applicable goals, policies, and actions, Phase 1 impacts due to conflicts with the General Plan would be ***less than significant***. No mitigation is required.

## South San Francisco Zoning Ordinance

### ***Project***

The South San Francisco Zoning Ordinance identifies the Specific Plan area as BPO, which implements the General Plan's Office designation, is intended to provide sites for development such as administrative, financial, business, professional, medical, and public offices at locations close to BART or Caltrain stations. The maximum base FAR for administrative, financial, and other office uses is typically 1.0, but increases up to a maximum FAR of 2.5 may be permitted for development that meets specific transportation demand management, off-site improvement, or design requirements or criteria. Building heights under the BPO district may not exceed 80 feet. The small 0.3-acre portion of the Specific Plan area corresponding with the Parks and Recreation land use designation is also zoned Parks and Recreation.

The proposed project would establish a new zoning district unique to the Specific Plan area, referred to as the Southline Campus District (S-C District) that would implement the development standards and regulations under the Specific Plan; project approvals to implement the project would include a zoning map and zoning text amendments. The S-C District is intended to implement the development standards and requirements established under the Specific Plan. As shown in Figure 3-10 in Chapter 3, *Project Description*, the S-C District would cover the entire Specific Plan area. Permitted and conditionally permitted uses in the S-C District include various types of office; employment and commercial; eating and drinking; public and semi-public; transportation, communications, and utility; and temporary and interim uses. Uses that are illegal under local, state, or federal law would not be allowed. Similar to the BPO district, the S-C District would allow for development up to a FAR of approximately 2.4.<sup>30</sup>

With approval of the zoning map and zoning text amendments, the project would be consistent with the Zoning Ordinance. The potential environmental effects that could result from approving the zoning map and zoning text amendments and developing the proposed new and intensified land uses at the Specific Plan area are evaluated throughout Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR. Therefore, impacts would be ***less than significant***. No mitigation is required.

### ***Phase 1***

The impacts of Phase 1 would be the same as the impacts of the project because Phase 1 is a component of the project, and subject to the Specific Plan's proposed development standards and design guidelines. Given that the project would be consistent with the proposed zoning map and

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<sup>30</sup> Total allowable floor area and floor area ratio (FAR) shall be calculated based on entire Specific Plan area (inclusive of Southline Avenue and other dedicated improvements) rather than on a lot-by-lot basis. The total allowable floor area shall be 2,800,000 square feet across the entire Specific Plan area, which equates to approximately 2.4 FAR, exclusive of the campus parking structure.

zoning text amendments under project approvals, Phase 1 impacts due to conflicts with Zoning Ordinance would be ***less than significant***. No mitigation is required.

### South San Francisco Climate Action Plan

#### ***Project***

As previously discussed, the City's CAP is currently being updated. The 2014 CAP remains active until completion and adoption of the new CAP. Therefore, this discussion addresses the project's consistency with the 2014 CAP. As discussed in Section 4.15, *Transportation and Circulation*, of this EIR, the project would include a TDM Plan designed to meet the 45 percent mode-share target required by the City. The TDM Plan would provide direct access to transit, on-site amenities for bicycle and pedestrian access, shuttle service, carpooling and vanpooling facilities and services, mode shift incentives, and other TDM features, resulting in a reduction in VMT, and, consequently GHG emissions. Additionally, as addressed in Section 4.7, *Greenhouse Gas Emissions*, of this EIR, the proposed project would be designed to enhance resource efficiency and ensure good indoor environmental quality, as well as reduce energy consumption, water consumption, and waste generation; specifically, it would be designed to meet the standards of the South San Francisco CAP and South San Francisco Municipal Code and 2019 California Green Building Standards Code, commonly referred to as CALGreen.

**Table 4.7-7** in Section 4.7, *Greenhouse Gas Emissions*, of this EIR presents the consistency analysis of the proposed project and the applicable CAP emission reduction measures. As discussed therein, with implementation of **Mitigation Measure AQ-4**, the project construction fleet would be required to use renewable diesel fuel, thereby being consistent CAP Measure 2.2. The proposed project would be consistent with all the other CAP emission reduction measures without mitigation. Therefore, this impact would be ***less than significant with mitigation***.

#### ***Phase 1***

For the reasons stated above in the project analysis, this discussion addresses the project's consistency with the 2014 CAP. **Table 4.7-8** in Section 4.7, *Greenhouse Gas Emissions*, of this EIR presents the consistency analysis of Phase 1 and the CAP's Development Review Checklist for new development. The proposed project would be consistent with nearly all of the Development Review Checklist's measures, except for a potential inconsistency with a measure related to exceeding CALGreen standards for water fixture flow rates and another measure related to capturing rainwater for irrigation. Even with this potential inconsistency, Phase 1 is consistent with the CAP's Development Review Checklist as a whole, given its consistency with all other measures. Therefore, this impact would be ***less than significant***.

### San Bruno General Plan

#### ***Project***

As shown in Table 3-5 in Chapter 3, *Project Description*, and further described under Section 3.6.2.7, *Circulation and Mobility*, Phase 1 of the project includes off-site improvements in the City of San Bruno including the following:

- Construct new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue and related sidewalk and streetscape improvements and utility installations;

- New pedestrian / ADA-compliant ramps at intersections, wider ramps and crosswalks on the Centennial Way Trail adjacent to South Maple Avenue;
- Transit signal priority devices on the signal masts at the Huntington / Southline Avenues intersection for SamTrans and shuttle buses;
- Improve Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue;
- A new dedicated, signalized northbound left turn lane on Huntington providing a new entrance into the transit center for SamTrans buses;
- Bulb-outs and high-visibility crosswalks at the BART station garage intersection to facilitate safe pedestrian crossing; and
- Convert Tanforan Avenue to cul-de-sac adjacent to Huntington Avenue.

The off-site improvements do not involve any buildings or structures. This section considers the consistency of these off-site improvements with the San Bruno General Plan land use classification, and Land Use and Urban Design and Transportation elements as outlined under Section 4.10.3.4, above.

With respect to land use designation, the project's off-site improvements located in the City of San Bruno, which include various circulation and utilities improvements, would be located within existing rights of way. Because the project proposes to improve these areas with circulation and utility infrastructure and does not contain any buildings or structures that would conflict with the identified land uses, the project would not conflict with the land use intent of the San Bruno General Plan.

With respect to the San Bruno Land Use and Urban Development Element, the project would also not conflict with City of San Bruno policies. Specifically, the project is found to be consistent with the San Bruno General Plan's Land Use and Urban Design policies that seek to improve conditions related to pedestrian safety and street frontage improvements near the San Bruno BART station and Huntington Avenue (LUD-9 ) because the project would provide a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue and improve Huntington Avenue from Southline Avenue south to the existing BART garage intersection for pedestrian access. With respect to policy LUD-33, which calls for street trees and buffering between the Huntington Avenue and the residences to the east of the San Bruno BART station, the project would be consistent with this policy as it would improve the street front conditions in that area and would establish significant new plantings within the Tanforan Avenue Community Parklet immediately adjacent to that residential area.

With respect to the San Bruno Transportation Element, as discussed in Section 4.15, *Transportation and Circulation*, the project would not conflict with the General Plan except for policies related to LOS, as further described below. That is, the project would not conflict with 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 pedestrian improvements such as wider sidewalks and intersection crossing improvements, with the goal of increasing connectivity within the Specific Plan area and to surrounding neighborhoods and transit corridors and stations. Specifically, by providing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue with related sidewalk and streetscape improvements to be more visible and ADA-compliant on the Centennial Way Trail adjacent to South

Maple Avenue, and by converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue, the project would directly implement Policies T-A, T-F, T-G, T-2, T-22, T-47, T-70 and HS-17. The project is thus consistent with the General Plan's policies that seek to improve conditions for all transportation modes and improve connections to transit corridors and stations.

San Bruno General Plan Policy T-B establishes that the City of San Bruno strives to maintain acceptable levels of service for vehicular movement along San Bruno's street network but acknowledges that acceptable levels of service could vary based on characteristics of the area under consideration. Implementing Policy T-6 indicates that LOS D should be maintained for intersections shown in Figure 4-2 for AM and PM peak periods, including the Huntington Avenue/Sneath Lane intersection, which would be reconfigured in connection with the proposed project's off-site improvements. As demonstrated in the LOS analysis for the project, which is attached to the *Southline Transportation Impact Analysis* prepared for the proposed project by Fehr & Peers (see **Appendix 4.15-1**), under project buildout conditions, six intersections in San Bruno would experience LOS E or F conditions, and five of those intersections would not meet the LOS standards in San Bruno's General Plan. San Bruno General Plan Policy T-B states that "acceptable levels of service could vary based on characteristics of the area under consideration," and the intersections that would operate at LOS E or F are located in heavily congested areas, as indicated by the existing LOS levels which range from LOS C to LOS E. Nevertheless, the project would contribute to inconsistency with the Transportation Element's LOS policies. However, as described in Section 4.15, *Transportation and Circulation*, vehicle delay (LOS) is not considered to be an environmental impact under CEQA. Therefore, while the City of San Bruno may consider these inconsistencies as it evaluates project approvals, this inconsistency is not a significant impact on the environment.

Table 4-8 and Figure 4-7 in the San Bruno General Plan Transportation Element identify recommended intersection improvements at certain intersections in San Bruno to maintain acceptable LOS. The proposed new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue is not identified in Table 4-8 and Figure 4-7; however, the City of San Bruno maintains discretion to evaluate the proposed off-site improvements within its jurisdiction for consistency with its General Plan. The environmental impacts of constructing and operating the new intersection are evaluated throughout the resource sections in this EIR.

Overall, given that the off-site improvements in San Bruno are consistent with the General Plan's intended land use and policies, and because the transportation related inconsistencies are not associated with adverse environmental impacts under CEQA, the project would be consistent with the majority of applicable goals, policies, and actions in the San Bruno General Plan, resulting in a ***less-than-significant*** impact. No mitigation is required.

### ***Phase 1***

Phase 1, as an element of the project, would similarly not conflict with the San Bruno General Plan. For the same reasons as stated above in the project analysis, Phase 1's compatibility with the Transportation Element is classified as inconsistent with LOS policies set forth in the General Plan. However, while the City of San Bruno may evaluate potential vehicle delay and the General Plan's LOS policies in its planning considerations, vehicle delay is not considered to be an environmental impact under CEQA (see Section 4.15, *Transportation and Circulation*, for further discussion). 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), the Phase 1 impacts due to conflicts with the General Plan would be ***less than significant***. No mitigation is required.

## San Bruno Transit Corridors Plan

### ***Project***

As identified in **Table 3-5** in Chapter 3, *Project Description*, the project incorporates several off-site improvements that would directly implement the public realm design guidelines identified the City of San Bruno's Transit Corridors Plan. The new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue and related sidewalk and streetscape improvements would be consistent with measures A1-1, A1-3, A2-2, A2-5 A2-6, and A3-1. The Huntington Avenue improvements from the new intersection at Southline Avenue south to the existing BART garage intersection would be consistent with measures A1-1, A1-3, A2-2, A2-5, A2-7, and A3-1. The project would not interfere with the implementation of the policies described in the San Bruno Transit Corridors Plan, and would fulfill the vision of the Transit Corridors Plan to enhance the pedestrian environment along the Transit Corridors Area's key roadways, as well as within its public open spaces, facilitating a balance between the needs of transit, automobiles, bicyclists, and pedestrians, including those with disabilities. Impacts due to conflicts with the San Bruno Transit Corridors Plan would be ***less than significant***. No mitigation is required.

### ***Phase 1***

The impacts of Phase 1 would be the same as those of the project because Phase 1 is within the Specific Plan area, and subject to the Specific Plan's proposed development standards and design guidelines. Furthermore, Phase 1 would construct the off-site improvements that would directly implement improvements identified the City of San Bruno San Bruno Transit Corridors Plan. Phase 1 impacts due to conflicts with the San Bruno Transit Corridors Plan would be ***less than significant***. No mitigation is required.

## San Bruno Walk 'n Bike Plan

### ***Project***

Per Table 3-5 in Chapter 3, *Project Description*, Phase 1 of the project incorporates a number of off-site improvements that would directly implement improvements identified the City of San Bruno's Walk 'N Bike Plan (see also Section 3.6.2.7, *Circulation and Mobility* and Figure 3-20 and Figure 3-21, of this EIR for further descriptions related to off-site circulation improvements). As described in Section 4.10.3.4, above, the Walk 'n Bike Plan calls for streetscape improvements "X-23" located along Huntington Avenue from the intersection of Sneath Avenue heading south to San Bruno Avenue West, in addition to a Class IV separated bikeway along the eastern side Huntington Avenue. The Walk 'N Bike Plan notes that this improvement would require subsequent evaluation, study, and coordination with Caltrain to evaluate potential impacts to local traffic and circulation patterns prior to implementation.

With respect to the identified streetscape improvements, the western portion of the proposed intersection improvement at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue would include a pedestrian crossing for the Centennial Way Trail, with high visibility crosswalks provided on the remaining northern, southern, and eastern legs of the intersection. These improvements would include new pedestrian / ADA-compliant ramps at the intersection, including wider ramps and crosswalks on the Centennial Way Trail adjacent to South Maple Avenue.

With respect to bicycle infrastructure, the project off-site improvements along Huntington Avenue would extend the Centennial Way Trail to the San Bruno BART Station, providing a 15- to 17- foot-

wide multi-use bicycle and pedestrian path along the west side of Huntington Avenue and a new crosswalk and pedestrian bulb-out on the south side of the SamTrans Transit Center driveway that would provide a more direct connection between the BART Station to the eastern sidewalk along Huntington Avenue. The project would not directly implement a Class IV separated bikeway along the eastern side Huntington Avenue, but it would not result in interference with implementation of that improvement at a later date. The project contains 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 is required.

### ***Phase 1***

The impacts of Phase 1 would be the same as those of the project because Phase 1 is within the Specific Plan area, and subject to the Specific Plan's proposed development standards and design guidelines. Furthermore, Phase 1 would construct the off-site improvements that would directly implement improvements identified the City of San Bruno Walk 'N Bike Plan. Given that the project is consistent with the Walk 'n Bike Plan, Phase 1 impacts due to conflicts with the Walk 'n Bike Plan would be ***less than significant***. No mitigation is required.

## **Conclusion**

Based on the analysis above, with implementation of **Mitigation Measure AQ-4**, 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. Impacts would be ***less than significant with mitigation***. Phase 1 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. Impacts would be ***less than significant***. No mitigation is required.

### **4.10.4.4 Cumulative Impacts**

The cumulative analysis examines the effects of the project, inclusive of Phase 1, in the relevant geographic area in combination with those of other current projects, probable future projects, and projected future growth. Section 4.1.6, *Approach to Cumulative Impact Analysis*, identifies reasonably foreseeable projects in the city within a 0.5-mile radius of the project site. These reasonably foreseeable projects include residential, commercial, and industrial uses.

**Impact C-LU-1: The project, inclusive of Phase 1, together with the cumulative projects identified would not physically divide an established community. (Project: *Less than Significant*; Phase 1: *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 Phase 1, together with the cumulative projects identified in Section 4.1.6, *Approach to Cumulative Impact Analysis*, would not introduce any physical features that could divide established communities, nor would it remove a means of access among established communities.

These cumulative projects, along with the project, would increase the intensity of land uses within the area, but would be consistent with the City's anticipated land use conditions under its General Plan. Moreover, other cumulative projects are anticipated to be consistent with land use plans and policies in effect at the time of approval. However, to the extent that other cumulative projects may not be fully consistent with the City's General Plan or other land use plans, policies and regulations, such inconsistencies do not represent a cumulative CEQA impact unless such inconsistencies cause a significant environmental effect. For these reasons, 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 Phase 1, together with the cumulative projects identified 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*; Phase 1: *Less than Significant*)**

As discussed under Section 4.10.4.2, *Approach to Analysis*, 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 respect 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 4.12, *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.

Section 4.12, *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 the increase in the number of residents under the project in combination with reasonably foreseeable future projects would not exceed with the population and housing growth projected by regional forecasts and therefore, would not constitute substantial unplanned population growth. Ultimately, because the project is located on infill sites and in proximity to transit, cumulative impacts related to inconsistency with regional planning initiatives would be ***less than significant***.

**Table 4.10-1. Comparison of the Project to City of South San Francisco General Plan Goals and Policies**

<b>General Plan Policy</b>	<b>Consistency Analysis: Project</b>	<b>Consistency Analysis: Phase 1</b>
<b>Land Use and Urban Design Element</b>		
2-G-1: Preserve the scale and character of established neighborhoods, and protect residents from changes in non-residential areas.	CONSISTENT. The Specific Plan includes the Southline Campus (S-C) Development Standards that includes setbacks for all development adjacent to residential neighborhoods. In addition, the project would include the Tanforan Avenue Community Parklet, which would be within an approximately 40-foot buffer setback on the north side of Tanforan Avenue. This privately-owned park would provide a transition between the Specific Plan area and the residential neighborhood located to the south, and would be accessible to the public, including the surrounding community, residents and employees.	CONSISTENT. Phase 1, which would be constructed under the Specific Plan, would adhere to setbacks established under the Southline Campus (S-C) Development Standards for all development adjacent to residential neighborhoods. In addition, the Phase 1 would include the creation of the publicly-accessible Tanforan Avenue Community Parklet, which would provide a transition between the Specific Plan area and the residential neighborhood located to the south.
2-G-2: Maintain a balanced land use program that provides opportunities for continued economic growth, and building intensities that reflect South San Francisco's prominent inner bay location and excellent regional access.	CONSISTENT. The project consists of infill and intensification of development at the intersection of South Maple Avenue and Tanforan Avenue with office and R&D uses that would provide opportunities for continues economic growth. This site, currently approved for office land uses, provides regional access at it is serviced by U.S. 101, I-380, and I-280, the San Bruno BART station the San Bruno Caltrain station.	CONSISTENT. Phase 1 consists of infill and intensification of development within the Specific Plan area with new professional offices and R&D uses with regional access.
2-G-3: Provide land use designations that maximize benefits of increased accessibility that will result from BART extension to the city and adjacent locations.	CONSISTENT. The project consists of infill and intensification of office and R&D land uses located in close proximity to the San Bruno BART and the San Bruno Caltrain stations. In addition, the project would improve pedestrian and bicycle access to the San Bruno BART station by providing a new crosswalk and new path along a portion of Huntington Avenue as part of its Phase 1 construction,	CONSISTENT. Phase 1 consists of infill and intensification of development within the Specific Plan area with new professional offices R&D uses with regional access and includes improved BART station access as addressed under the project.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
<p><i>2-G-7:</i> Encourage mixed-use residential, retail, and office development in centers where they would support transit, in locations where they would provide increased access to neighborhoods that currently lack such facilities, and in corridors where such developments can help to foster identity and vitality.</p>	<p>CONSISTENT. The project promotes mixed-uses, specifically, office, other employment and commercial, eating and drinking, public and semi-public, transportation, and other uses such as public events. The project is in an underutilized industrial area in proximity to transit services and residential uses. By promoting these mixed-uses in this underutilized area, the project would support transit, provide increased access to neighborhoods that currently lack these mixed-use facilities, and help to foster identity and vitality.</p>	<p>CONSISTENT. Phase 1 consists of building, site access, and landscaping/open space improvements within the Specific Plan area that would support transit, provide increased access to neighborhoods that currently lack these mixed-use facilities, and help to foster identity and vitality.</p>
<p><i>2-G-8:</i> Provide incentives to maximize community orientation of new development, and to promote alternative transportation modes.</p>	<p>CONSISTENT. The project includes a new Southline Avenue roadway (to be dedicated as a public roadway) that would provide connectivity through the Specific Plan area as well as new open spaces and community uses: the Southline Commons, Southline Retail Plaza and Tanforan Avenue Community Parklet. It also includes a TDM Plan designed to achieve a 45 percent alternative mode share with elements that include improved bus service access to the San Bruno BART station and SamTrans Transit Center, new shuttle service from the site to Caltrain, stations and carpooling/vanpooling services.</p>	<p>CONSISTENT. Phase 1 consists of building, site access, and landscaping/open space improvements within the Specific Plan area that would support community uses and support alternative transportation modes through the site. New community uses under Phase 1 include the Southline Retail Plaza and Tanforan Avenue Community Parklet.</p>
<p><i>2-I-3:</i> Undertake planned development for unique projects or as a means to achieve high community design standards, not to circumvent development intensity standards.</p>	<p>CONSISTENT. The project consists of infill and intensification of uses currently approved under the General Plan including the maximum proposed intensity of development, which would not exceed a FAR of 2.5. Subsequent Precise Plans under the Southline Specific Plan would be required to comply with Specific Plan Design Guidelines (Chapter 5) and objectives related to design quality and would be subject to Design Review by the City.</p>	<p>CONSISTENT. Phase 1 consists of infill and intensification of office and R&amp;D development within the Specific Plan area subject to the Southline Specific Plan, which would operate as the zoning for the Specific Plan area. Phase 1 would be subject to Design Review prior to approval.</p>

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
<p><b>2-I-4:</b> Require all new developments seeking an FAR bonus set forth in Table 2.2-2 to achieve a progressively higher alternative mode usage. The requirements of the TDM Program are detailed in the Zoning Ordinance. (Amended by Resolution 98-2001, adopted September 26, 2001)</p> <p>The requirements of the TDM program for projects seeking an FAR bonus are based on the percentage trip reduction that is achieved.</p>	<p>CONSISTENT. As discussed in Section 4.15, <i>Transportation and Circulation</i>, the project would include a TDM Plan designed to meet the 45 percent mode-share target required by the City. The TDM Plan would provide direct access to transit, on-site amenities for bicycle and pedestrian access, shuttle service, carpooling and vanpooling facilities and services, mode shift incentives, and other TDM features, resulting in a reduction in VMT.</p>	<p>CONSISTENT. Phase 1 development would implement elements of the TDM consistent with the General Plan as addressed under the project.</p>
<p><b>2-I-9:</b> Ensure that any design and development standards and guidelines that are adopted reflect the unique patterns and characteristics of individual neighborhoods</p>	<p>CONSISTENT. Per the Specific Plan Objectives (Specific Plan Chapter 1), the Plan is intended to “Create a state-of-the-art transit-oriented commercial campus development consistent with the General Plan designation of the Specific Plan area,” and to “Establish a commercial campus development with sophisticated, unified architectural and landscape design and site planning, resulting in a distinctive campus identity and strong sense of place.” Overall, the project consists of infill and intensification of uses currently approved under the General Plan. Subsequent Precise Plans under the Southline Specific Plan would be required to comply with Specific Plan Design Guidelines (Chapter 5) and objectives related to design quality and would be subject to Design Review by the City and would thus reflect the unique patterns and characteristics of the area.</p>	<p>CONSISTENT. Phase 1 consists of infill and intensification of office and R&amp;D development within the Specific Plan area subject to the Southline Specific Plan objectives and goals, which would operate as the zoning for the Specific Plan area. Phase 1 would be subject to Design Review prior to approval and would reflect the unique patterns and characteristics of the area as established by the project.</p>

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
<p><b>2-I-22:</b> Require that all future development conforms with the relevant height, aircraft noise, and safety policies and compatibility criteria contained in the most recently adopted version of the San Mateo County Comprehensive Airport Land Use Plan for the environs of San Francisco International Airport, with the exception of projects deemed appropriate by the City Council, and to the extent necessary, approved through the local agency override process, consistent with Public Utilities Code Section 21670 et seq.</p>	<p>CONSISTENT. The project includes specific General Plan amendments to reflect adoption of the Specific Plan, including amending Figure 2-3, Special Area Height Limitations, to increase the allowable building height on the Specific Plan area from 80 feet up to ALUCP and FAA limits, which vary across the Specific Plan area, up to a maximum of approximately 120 feet. This amendment would continue to comply with the relevant height, aircraft noise, and safety policies and compatibility criteria contained in the most recently adopted version of the San Mateo County Comprehensive Airport Land Use Plan for the environs of San Francisco International Airport.</p>	<p>CONSISTENT. Phase 1 consists of infill and intensification of development within the Specific Plan area subject to the Southline Specific Plan Special Area Height Limitations, which would continue to comply with the relevant height, aircraft noise, and safety policies and compatibility criteria contained in the most recently adopted version of the San Mateo County Comprehensive Airport Land Use Plan for the environs of San Francisco International Airport.</p>
<b>Planning Sub-Area Element, Lindenville</b>		
<p><b>3.2-G-1:</b> Maintain the industrial character in the area from roughly the Spruce Avenue corridor in the west to San Mateo Avenue in the east, and south of Railroad Avenue to the San Bruno BART station.</p>	<p>CONSISTENT. The project development would maintain the industrial character of the area per Section 5.2, <i>Architectural Design Guidelines</i> of the Specific Plan, which encourages a contemporary interpretation of the existing industrial motif using glass, metal and “brick-like” materials in a rich color palette, reflecting the industrial history of the Lindenville Planning Sub-Area.</p>	<p>CONSISTENT. Phase 1 development would be completed consistent with the design guidelines outlined in Chapter 5 of the Specific Plan and would thus maintain the industrial character of the area.</p>
<p><b>3.2-G-2:</b> Develop new streets and through connections to facilitate truck movement; improve access to U.S. 101, and provide better connectivity between the proposed San Bruno BART station and downtown.</p>	<p>CONSISTENT. The project development would construct a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue that could connect to the project’s new roadway extension of Southline Avenue east to west through the Specific Plan area between Huntington and South Linden Avenues during Phase 1, as envisioned by the General Plan. The extension of Southline Avenue would facilitate vehicular movement, improve access to U.S. 101, and provide better connectivity between the San Bruno BART station and the downtown area of South San Francisco.</p>	<p>CONSISTENT. Phase 1 development would include the street and connection improvements addressed under the project and would thus facilitate vehicular movement, improve access to U.S. 101, and provide better connectivity between the San Bruno BART station and the downtown area of South San Francisco.</p>

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
3.2-G-3: Enhance the appearance of the area by undertaking streetscape and other improvements.	CONSISTENT. The project includes several varied streetscape improvements that include the construction of the new Southline Avenue, pedestrian improvements, new bike facilities, and new off-site improvements, along with landscaping improvements. These features are addressed under the Specific Plan Chapter 2: Land Use Plan & Development Standards, Chapter 3, Circulation and Mobility, and Chapter 5: Design Guidelines, all of which would serve to enhance the appearance of the project site.	CONSISTENT. Phase 1 development would be completed consistent with the policies outlined in the Specific Plan and would thus enhance the appearance of the area by providing improvements contemplated in those policies.
3.2-G-4: Improve buffering between industrial areas in Lindenville and surrounding residential neighborhoods.	CONSISTENT. The Specific Plan, which would change the land uses to redevelop industrial uses, also includes the Southline Campus (S-C) Development Standards that include setbacks for development adjacent to residential neighborhoods. In addition, the project would include the Tanforan Avenue Community Parklet, which would be within an approximately 40-foot buffer setback on the north side of Tanforan Avenue. This privately owned park would provide a transition between the Specific Plan area and the residential neighborhood located to the south, and would be accessible to the public, including the surrounding community, residents, and employees.	CONSISTENT. Phase 1, which would be constructed under the Specific Plan, would adhere to setbacks established under the Southline Campus (S-C) Development Standards for all development adjacent to residential neighborhoods. In addition, the Phase 1 would include the creation of the publicly-accessible Tanforan Avenue Community Parklet, which would provide a transition between the Specific Plan area and the residential neighborhood located to the south.
3.2-I-2: Encourage new office development to locate in Downtown, Business Commercial, or Office districts; not in areas designated as Mixed Industrial. Ensure that existing offices continue to be recognized as conforming uses in the Zoning Ordinance.	CONSISTENT. The project consists of infill and intensification of new office and R&D uses in an area that is currently designated as Office, and not an area designated as Mixed Industrial. The project involves specific zoning map and zoning text amendments to reflect adoption of the Specific Plan such that office uses would continue to be recognized as conforming uses in the Zoning Ordinance.	CONSISTENT. Phase 1 consists of infill and intensification of office and R&D development within the Specific Plan area subject to the Southline Specific Plan, which would operate as the zoning for the developments thereunder.
3.2-I-7: Establish requirements for common loading and parcel access for Lindenville in the Zoning Ordinance.	CONSISTENT. The project contains policies promote loading and delivery zones away from pedestrian circulation areas and adjacent residential neighborhoods to the greatest extent practicable. The Specific Plan also outlines the Southline Campus (S-C) Development Standards that establish minimum loading requirements per building.	CONSISTENT. Phase 1 includes Parking Structure C and would comply with all loading policies and guidelines established by the project.

<b>General Plan Policy</b>	<b>Consistency Analysis: Project</b>	<b>Consistency Analysis: Phase 1</b>
<i>3.2-I-10:</i> Prepare and implement a streetscape improvement plan for South Linden Avenue and South Spruce Avenue that recognizes the streets' role as the connector between the San Bruno BART station and downtown.	CONSISTENT. The project development would modify the existing intersection at South Linden Avenue and Dollar Avenue for the new roadway extension of Southline Avenue east to west through the Specific Plan during Phase 1. These improvements would support the role of South Linden Avenue as a connector between the San Bruno BART station and downtown.	CONSISTENT. Phase 1 development would include the street and connection improvements addressed under the project and would provide better connectivity between San Bruno BART station and downtown.
<i>3.2-I-12:</i> Minimize any new curb-cuts on Victory and South Linden avenues; encourage site access from side streets wherever possible.	CONSISTENT. The project includes improvements in the area transportation network to create improved connectivity and circulation for the surrounding community. Along South Linden Avenue, the project would improve an existing curb-cut into the Plan area and would reconfigure the existing intersection with Dollar Avenue.	CONSISTENT. Phase 1 development would include improvements in its roadway network as addressed under the project.
<i>3.2-I-14:</i> Provide new street extensions in Lindenville as outlined in Chapter 4: Transportation. These include a new interchange at South Airport Boulevard/U.S. 101, extension of Victory Avenue to the interchange, extension of South Linden Avenue to the San Bruno BART station, extension of Mission Street to South Maple Avenue, and Shaw Avenue extension north to Produce Avenue.	CONSISTENT. The project development would construct a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue, and it would modify the existing intersection at South Linden Avenue and Dollar Avenue in connection to the new roadway extension of Southline Avenue east to west between Huntington and South Linden Avenues during Phase 1. The construction of the new Southline Avenue would be consistent with General Plan policies calling for the extension of South Linden Avenue to the San Bruno BART station.	CONSISTENT. Phase 1 development would include the street and connection improvements addressed under the project and would thus be consistent with General Plan policies calling for the extension of South Linden Avenue to the San Bruno BART station.
<i>3.2-I-15:</i> Explore the feasibility of requiring the new development in the Lindenville area to pay its fair share for any interchange and other improvements in the area.	CONSISTENT. By including on-site and off-site site interchange and vehicular circulation improvements the project would contribute to improvements within this area by incorporating those components within the proposed project.	CONSISTENT. Phase 1 development would include the street and connection improvements addressed under the project and would thus be consistent with the policy to pay its fair share for any interchange and other improvements in the area.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
Transportation Element		
4.2-G-1: Undertake efforts to enhance transportation capacity, especially in growth and emerging employment areas such as in the East of 101 area.	CONSISTENT. The project includes several improvements in the transportation network to accommodate increased development and transportation capacity of the Specific Plan area. By providing these improvements the project would be consistent with this policy's goal to enhance transportation capacity employment areas such as in the East of 101 area.	CONSISTENT. Phase 1 development would include infrastructure and design features in its street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation as addressed under the project.
4.2-G-8: Use the Bicycle Master Plan to identify, schedule, and implement roadway improvements that enhance bicycle access.	CONSISTENT. As described in Chapter 3: <i>Circulation &amp; Mobility</i> of the Specific Plan and shown in Figure 3-19 in this EIR, the project includes several improvements in the transportation network to accommodate bicyclist safety. These improvements include a new Class II bike lanes on the new Southline Avenue, along with new Class I and Class III bike facilities throughout the project area. These improvements would support the existing Bicycle Master Plan, as described in Section 4.15.3.4 of this EIR, and would support preliminary recommendations for the Bicycle Master Plan update for a new Class II lane through the project area.	CONSISTENT. Phase 1 development would include bicycle improvements in its street design and construction as addressed under the project.
4.2-G-9: Use the Pedestrian Master Plan to identify, schedule, and implement roadway improvements that enhance pedestrian access.	CONSISTENT. As described in Chapter 3: <i>Circulation &amp; Mobility</i> of the Specific Plan and shown in Figure 3-18 of this EIR, the project includes several improvements in the transportation network to improve pedestrian safety. These improvements include new streets and trails, along with improved pedestrian access to the San Bruno BART station. By creating safe and inviting environments for pedestrians the project would be consistent with the Pedestrian Master Plan.	CONSISTENT. Phase 1 development would include pedestrian improvements in its street design and construction as addressed under the project.
4.2-G-10: Make efficient use of existing transportation facilities and, through the arrangement of land uses, improved alternate modes, and enhanced integration of the various transportation systems serving South San Francisco, strive to reduce the total number of vehicle miles traveled.	CONSISTENT. In addition to a project TDM plan, the project includes several improvements in the transportation network to carry out transportation and circulation policies under the South San Francisco General Plan. These improvements include enhancing pedestrian access to the San Bruno BART station and to the SamTrans center, as well as bus prioritization with signal masts. Each of these features would serve to reduce the total number of vehicle miles traveled.	CONSISTENT. Phase 1 development would include infrastructure and design features in its street design and construction to reduce the total number of vehicle miles traveled as addressed under the project.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
4.2-G-11: Coordinate local actions with regional agencies, and undertake active efforts to undertake transportation improvements.	CONSISTENT. As addressed in Section 3.7 in Chapter 3, <i>Project Description</i> , of this EIR, the project would require agency coordination and approval for various actions including coordinated transportation improvements. Identified agencies outside of the City of South San Francisco that are involved in transportation elements of the project include the City of San Bruno and BART.	CONSISTENT. Phase 1 development would take place following coordination with local and regional agencies as addressed under the project.
4.2-G-13: Integrate Complete Streets infrastructure and design features into street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation. (Amended by Resolution 136-2014, adopted December 10, 2014)	CONSISTENT. As further described in Chapter 3: <i>Circulation &amp; Mobility</i> of the Specific Plan, the project includes several improvements in the transportation network to accommodate increased development capacity of the Specific Plan area; create improved connectivity and circulation for the surrounding community; improve pedestrian and bicyclist safety; and carry out transportation and circulation policies under the South San Francisco General Plan. These improvements include new streets and trails, improving pedestrian access to the San Bruno BART station, neighborhood traffic calming, and compatibility with a future grade separation of the Caltrain tracks that would be consistent with the Complete Streets vision of the General Plan, which envisions street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation.	CONSISTENT. Phase 1 development would include infrastructure and design features in its street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation as addressed under the project.
4.2-G-14: Make Complete Streets practice a routine part of South San Francisco's everyday operations. (Amended by Resolution 136-2014, adopted December 10, 2014)	CONSISTENT. As further described in Chapter 3: <i>Circulation &amp; Mobility</i> of the Specific Plan, the project's street improvements would be consistent with the Complete Streets practice of the General Plan, which envisions street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation.	CONSISTENT. Phase 1 development would include improvements consistent with the Complete Streets practice of the General Plan as addressed under the project.
4.2-G-17: Exempt development within one-quarter mile of a Caltrain or BART station, or a City-designated ferry terminal, from LOS standards.	CONSISTENT. The project site is located within one-quarter mile of the San Bruno BART station, and as such, the project is exempt from the LOS standards included in Policies 4.2-G-15 and 4.2-G-16 of the General Plan.	CONSISTENT. The Phase 1 site is located within one-quarter mile of a BART station, and as such, Phase 1 is exempt from the LOS standards included in Policies 4.2-G-15 and 4.2-G-16 of the General Plan.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
4.2-I-2: Undertake street improvements identified in Figures 4-1 and 4-2. - South Linden Avenue extension to Sneath Lane. This would dramatically increase access to Lindenville and enable trucks to get to I-380 without going through Downtown. This connection is also extremely critical to ensure connection between Downtown and the (San Bruno) BART Station.	CONSISTENT. The project would construct a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue that would connect to the project's new roadway extension of Southline Avenue east to west through the Specific Plan area between Huntington and South Linden Avenues during Phase 1, as envisioned by the General Plan. The extension of Southline Avenue would facilitate vehicular movement, improve access to U.S. 101, and provide better connectivity between the San Bruno BART station and the downtown area of South San Francisco.	CONSISTENT. Phase 1 development would include the street and connection improvements addressed under the project and would thus facilitate vehicular movement, improve access to U.S. 101, and provide better connectivity between the San Bruno BART station and the downtown area of South San Francisco.
4.2-I-7: Continue to require that new development pays a fair share of the costs of street and other traffic and transportation improvements, based on traffic generated and impacts on service levels. Explore the feasibility of establishing impact fee, especially for improvements required in the Lindenville area. (Amended by Resolution 98-2001, adopted September 26, 2001)	CONSISTENT. By including on-site and off-site interchange and vehicular circulation improvements the project would contribute to transportation improvements within this area. The project would also pay required transportation impact fees to offset its impacts to the circulation network. The project would thus be consistent with the policy to pay its fair share for any transportation improvements in the area.	CONSISTENT. Phase 1 development would include the street and connection improvements addressed under the project, as well as required transportation impact fees.
4.2-I-10: In planning, designing, and constructing Complete Streets: Include infrastructure that promotes a safe means of travel for all users along the right of way, such as sidewalks, shared-use paths, bicycle lanes, and paved shoulders.	CONSISTENT. As described in Chapter 3: <i>Circulation &amp; Mobility</i> of the Specific Plan, the project's street improvements would be consistent with the Complete Streets policy of the General Plan, which envisions street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation.	CONSISTENT. Phase 1 development would include improvements consistent with the Complete Streets practice of the General Plan as addressed under the project.
4.2-I-11: In all street projects, include infrastructure that improves transportation options for pedestrians, bicyclists, and users of public transportation of all ages and abilities.	CONSISTENT. As addressed under Policy 4.2-1-10, the project's street improvements would be consistent with the Complete Streets policy of the General Plan, which envisions street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation.	CONSISTENT. Phase 1 development would include improvements consistent with the Complete Streets practice of the General Plan as addressed under the project.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
4.3-G-2: Provide safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers.	CONSISTENT. The project includes pedestrian circulation and safety improvements both on-site for campus users, and off-site in the adjacent community, particularly through enhanced access to the San Bruno BART station and the Centennial Way Trail.	CONSISTENT. Phase 1 development would include safe and direct pedestrian routes and bikeways between and through the site and to transit centers consistent the General Plan as addressed under the project.
4.3-G-5: In partnership with employers, continue efforts to expand shuttle operations.	CONSISTENT. Under the project's TDM plan it would provide first/last mile shuttle service to the South San Francisco and/or San Bruno Caltrain stations as well as ride-matching services for carpools and vanpools users thorough 511.org and/or other programs.	CONSISTENT. Phase 1 development would continue efforts to expand shuttle operations consistent the General Plan as addressed under the project.
4.3-I-4: Require provision of secure covered bicycle parking at all existing and future multifamily residential, commercial, industrial, and office/ institutional uses.	CONSISTENT. The Specific Plan incorporates a number of policies and regulations regarding the proposed bicycle parking requirements within the Specific Plan area. Short-term bicycle parking would be provided on surface-level bike racks, located adjacent to the Southline Retail Plaza and proximate to building entries, conveniently located to serve shoppers, customers, messengers, guests and other Campus visitors. Long-term bicycle parking would be provided in below- and above-grade parking structures that would serve employees and others who generally stay for longer periods of time. Where appropriate, buildings would include showers and lockers to accommodate long-term users (i.e. employees).	CONSISTENT. Phase 1 development would provide secure covered bicycle parking at all proposed uses consistent the General Plan as addressed under the project.
4.3-I-6: Expand pedestrian facilities in new development, using the PMP [Pedestrian Master Plan] for pedestrian design guidelines and to identify other improvements that should be considered for projects proposed in areas that are identified in PMP concept plans. (Amended Resolution 26-2014, adopted February 26, 2014)	CONSISTENT. As addressed under Policy 4.2-G-9, the project would expand pedestrian facilities under the Specific Plan and off-site improvements. Figure 3-18 in Chapter 3, <i>Project Description</i> , of this EIR provides a conceptual layout of potential pedestrian facilities located on and adjacent to the project site in a manner that is consistent with the Pedestrian Master Plan pedestrian design guidelines.	CONSISTENT. Phase 1 development would expand pedestrian facilities consistent the Pedestrian Master Plan as addressed under the project.

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
<p><b>4.3-I-10:</b> As part of redesign of South Linden Avenue (see Section 3.2), provide continuous sidewalks on both sides of the street, extending through the entire stretch of the street from San Bruno BART Station to downtown.</p>	<p>CONSISTENT. The project proposes continuous sidewalks along both sides of the new Southline Avenue extension, which provides access from San Bruno BART Station to downtown. Figure 3-4: <i>Conceptual Pedestrian Connectivity Plan</i> within Chapter 3: <i>Circulation &amp; Mobility</i> of the Specific Plan, presents the project's proposed new sidewalk and connection plan.</p>	<p>CONSISTENT. Phase 1 development would include continuous sidewalks along both sides of the new Southline Avenue extension, which provides access from San Bruno BART Station to downtown.</p>
<p><b>4.3-I-11:</b> As part of any development in Lindenville or East of 101, require project proponents to provide sidewalks and street trees as part of frontage improvements for new development and redevelopment projects.</p>	<p>CONSISTENT. The project proposes continuous sidewalks and landscaping including street trees throughout the Specific Plan area. Figure 3-4: <i>Conceptual Pedestrian Connectivity Plan</i> within Chapter 3: <i>Circulation &amp; Mobility</i> of the Specific Plan, presents the project's proposed new sidewalk and connection plan.</p>	<p>CONSISTENT. Phase 1 development would include new sidewalks and landscaping as addressed under the project.</p>

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
<p><b>4.3-I-14:</b> Undertake a program to improve pedestrian connections between the rail stations—South San Francisco and San Bruno BART stations and the Caltrain Station—and the surroundings. Components of the program should include:</p> <ul style="list-style-type: none"> <li>• Installing handicapped ramps at all intersections as street improvements are being installed;</li> <li>• Constructing wide sidewalks where feasible to accommodate increased pedestrian use;</li> <li>• Providing intersection “bulbing” to reduce walking distances across streets in Downtown, across El Camino Real and Mission Road, and other high use areas;</li> <li>• Continuing with the City’s current policy of providing pedestrian facilities at all signalized intersections; and</li> <li>• Providing landscaping that encourages pedestrian use.</li> </ul>	<p>CONSISTENT. The project improves pedestrian connections between rail stations consistent with the City’s General Plan. The project would provide:</p> <ul style="list-style-type: none"> <li>• pedestrian and roadway improvements along Tanforan Avenue, as well as along Huntington Avenue from Southline Avenue south to the BART garage intersection;</li> <li>• new pedestrian / ADA-compliant ramps at intersections, wider ramps and crosswalks on the Centennial Way Trail adjacent to South Maple Avenue;</li> <li>• an upgrade to the existing signalized intersection at Huntington Avenue / BART garage entry;</li> <li>• the construction of new signalized intersections at: Huntington Avenue / Sneath Lane / Southline Avenue / Maple Avenue, at Southline Avenue / Main Campus Entry, and at South Linden Avenue / Dollar Avenue / Southline Avenue</li> </ul> <p>These improvements, as with the project, would also include features consistent with the General Plan’s program improvements by providing handicap accessible ramps, bulbing, signalization of intersections, and new pedestrian-oriented landscaping.</p>	<p>CONSISTENT. Phase 1 development, completed as part of the project would include features consistent with the General Plan’s program improvements by providing handicap accessible ramps, bulbing, signalization of intersections, and new pedestrian-oriented landscaping.</p>

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
<p><b>4.3-I-18:</b> Establish parking standards to support trip reduction goals by:</p> <ul style="list-style-type: none"> <li>• Allowing parking reductions for projects that have agreed to implement trip reduction methods, such as paid parking, and for mixed use development.</li> <li>• Requiring projects larger than 25 employees to provide preferential parking for carpools and vanpools. (Amended by Resolution 98-2001, adopted September 26, 2001)</li> </ul>	<p>CONSISTENT. The Specific Plan establishes parking standards applicable within the Specific Plan area, as set forth under Table 2-1 of the Specific Plan (which includes parking at a range of up to 2.2 spaces per 1,000 square feet of commercial use, with valet parking permitted within that range). The project would also incorporate a TDM Plan designed to reduce the project's single-occupancy vehicle trips and parking demand consistent with the goals set forth in the City's municipal code. The TDM Plan is designed to achieve a 45 percent alternative mode share, consistent with City requirements for comparable projects proposing a floor area ratio (FAR) up to 2.5. The project is thus consistent with the General Plan's goal to establish parking standards that support trip reduction goals; the project includes a reduced parking standard compared to comparable office/R&amp;D projects within the city, and the TDM Plan includes a mix of trip reduction measures and reserved parking for carpooling and vanpooling services.</p>	<p>CONSISTENT. Phase 1 development would include the same parking standards to support trip reduction as addressed under the project and would thus be consistent with the General Plan's goal to establish parking standards that support trip reduction goals.</p>
<b>Parks, Public Facilities and Services Element</b>		
<p><b>5.1-G-1:</b> Develop additional parkland in the city, particularly in areas lacking these facilities, to meet the standards of required park acreage for new residents and employees.</p>	<p>CONSISTENT. The project would provide approximately 313,550-341,800 square feet of open space. Landscaping and open space within the Specific Plan area would include a network of pedestrian walkways and landscaped edges, "gateway" entries, lobby plazas, and three distinct open space/public realm areas: Southline Commons, the Southline Retail Plaza, and the Tanforan Avenue Community Parklet. By constructing new parkland open space, and landscaping in an urbanized area with limited access to recreational opportunities the project would be consistent with the City's goal to provide park acreage for new residents and employees.</p>	<p>CONSISTENT. By constructing new parkland open space, and landscaping in an urbanized area with limited access to recreational opportunities Phase 1 would be consistent with the City's goal to provide park acreage for new residents and employees.</p>

General Plan Policy	Consistency Analysis: Project	Consistency Analysis: Phase 1
<p>5.1-G-5: Develop linear parks in conjunction with major infrastructure improvements and along existing public utility and transportation rights-of-way.</p>	<p>CONSISTENT. In addition to providing three distinct open space/public realm areas throughout the Specific Plan area, the project would include streetscape improvements along all project roadways. Pedestrian rights-of-way improvements include landscaping, benches, tables, and chairs; litter and recycling receptacles; bicycle storage facilities; and transit shuttle shelters; exterior lighting and signage. The project also includes the Tanforan Avenue Community Parklet, which would be within an approximately 40-foot buffer setback on the north side of Tanforan Avenue; thus providing an example of a linear park consistent with this policy.</p>	<p>CONSISTENT. Phase 1 development would include the streetscape improvements along all project roadways and the Tanforan Avenue Community Parklet as addressed under the project and would thus be consistent with General Plan goal for linear parks along transportation rights-of-way.</p>
<p>5.1-I-4: Develop new parks in locations and sizes shown on Figure 5-1. (Lindenville Linear Park. Another rail-to-trail conversion, this park measures 1.6 acres in size and is located between South Maple Avenue and Tanforan Avenue near the city boundary with San Bruno. This park should provide picnic facilities and benches for nearby office workers.)</p>	<p>CONSISTENT. The project includes a General Plan amendment to reflect adoption of the Specific Plan, including the redesignation of the approximately 0.3-acre parcel associated with a former abandoned rail spur that is designated as Parks and Recreation to Office. While the project would not construct the Lindenville Linear Park as presented in the General Plan Figure 5-1, the project would provide approximately 313,550 square feet of open space along rights-of-way and within three distinct open space/public realm areas: Southline Commons, the Southline Retail Plaza, and the Tanforan Avenue Community Parklet. By constructing new parkland open space of a similar nature to that identified by the General Plan for the Lindenville area the project would be consistent with the City's policy to provide picnic facilities and benches for nearby office workers.</p>	<p>CONSISTENT. Phase 1 development would include the parkland improvements as addressed under the project and would thus be consistent with General Plan policy to provide picnic facilities and benches for nearby office workers in the Lindenville area.</p>
<p>Source: City of South San Francisco. 1999. <i>1999 General Plan Chapters</i>. Available: <a href="https://www.ssf.net/departments/economic-community-development/planning-division/general-plan">https://www.ssf.net/departments/economic-community-development/planning-division/general-plan</a>. Accessed October 15 2020.</p>		

## 4.11 Noise and Vibration

### 4.11.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on noise and vibration. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes noise modeling files and other data (**Appendix 4.11-1**).

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. NOP comments pertaining to noise include concerns related to construction noise as well as operational noise issues. These issues are addressed below in Section 4.11.4, *Impacts and Mitigation Measures*.

### 4.11.2 Environmental Setting

#### 4.11.2.1 Fundamentals of Noise and Sound

##### 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, CEQA requires an evaluation of noise when considering the environmental impacts of a proposed project.

Sound is mechanical energy (i.e., 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 (i.e., frequency), the speed of propagation, and the pressure level or energy content (i.e., amplitude). In particular, the sound pressure level is the most common descriptor for characterizing the loudness of an ambient (i.e., existing) sound level. The decibel (dB) scale, which is a logarithmic scale, is used to quantify sound intensity, with 0 dB corresponding roughly to the threshold of hearing; however, the dB scale 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. Therefore, noise measurements are weighted more heavily toward the frequencies to which humans are sensitive in a process called A-weighting, written as dBA and referred to as A-weighted decibels. **Table 4.11-1, p. 4.11-2**, defines sound measurements and other terminology used in this chapter, and **Table 4.11-2, p. 4.11-3**, summarizes typical A-weighted sound levels for different noise sources.

**Table 4.11-1. Definition of Sound Measurements**

<b>Sound Measurements</b>	<b>Definition</b>
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 measured using the C-weighting filter network. C-weighting is very close to an unweighted or <i>flat</i> 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.
Ambient Noise Level	The all-encompassing composite of noise (from all sources near and far) associated with a given environment. The normal or existing level of environmental noise at a given location.
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.
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

**Table 4.11-2. 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	—80—	Food blender at 3 feet Garbage disposal at 3 feet
Noisy urban area, daytime	—70—	Vacuum cleaner at 10 feet Normal speech at 3 feet
Gas lawnmower at 100 feet	—60—	
Commercial area	—50—	Large business office Dishwasher in next room
Heavy traffic at 300 feet	—40—	Theater, large conference room (background)
Quiet urban daytime	—30—	Library
Quiet urban nighttime	—20—	Bedroom at night, concert hall (background)
Quiet suburban nighttime	—10—	Broadcast/recording studio
Quiet rural nighttime	—0—	

Source: Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report 0123. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\\_0.pdf](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: August 10, 2020.

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 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 4.11-1, p. 4.11-2.**

For a point source, such as a stationary compressor or a piece of construction equipment, sound attenuates (i.e., 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.<sup>1</sup> 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 CNEL, 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 adequately protective in areas where noise-sensitive uses are located and the CNEL is already high (i.e., above 60 dBA). In these areas, limiting noise increases to 3 dB or less is recommended.<sup>2</sup> 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.

## Noise from Multiple Sources

Because sound pressure levels in decibels are based on a logarithmic scale, they cannot be added or subtracted in the usual arithmetical way. Adding a new noise source to an existing noise source, with both producing noise at the same level, will not double the noise level. If the difference between two noise sources is 10 dBA or more, the higher noise source will dominate, and the resultant noise level will be equal to the noise level of the higher noise source. In general, if the difference between two noise sources is 0 to 1 dBA, the resultant noise level will be 3 dBA higher than the higher noise source, or both sources if they are equal. If the difference between two noise sources is 2 to 3 dBA, the resultant noise level will be 2 dBA above the higher noise source. If the difference between two noise sources is 4 to 10 dBA, the resultant noise level will be 1 dBA higher than the higher noise source.

## Attenuation of Noise

A receptor's distance from a noise source affects how noise levels attenuate (i.e., how noise levels decrease). Transportation noise sources tend to be arranged linearly such that roadway traffic attenuates at a rate of 3.0 to 4.5 dBA per doubling of distance from the source, depending on the intervening surface (paved or vegetated, respectively). Point sources of noise, such as stationary

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<sup>1</sup> California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed: May 20, 2020.

<sup>2</sup> Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report 0123. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\\_0.pdf](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: August 10, 2020.

equipment or construction equipment, typically attenuate at a rate of 6.0 to 7.5 dBA per doubling of distance from the source, depending on the intervening surface.<sup>3</sup> For example, a sound level of 80 dBA at 50 feet from the noise source will be reduced to 74 dBA at 100 feet, 68 dBA at 200 feet, and so on, based on the 6 dB point-source reduction over a non-absorptive surface (e.g., pavement instead of vegetation). Noise levels can also be attenuated by “shielding” or providing a barrier between the source and the receptor. With respect to interior noise levels, noise attenuation effectiveness depends on whether windows are closed or open. Based on the U.S. Environmental Protection Agency’s (EPA’s) national average, closed windows reduce noise levels by approximately 25 dBA, and open windows reduce noise levels by about 15 dBA.<sup>4</sup>

## Noise-Sensitive Land Uses

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 may include but are not limited to single- and multi-family residential areas, health care facilities, churches, lodging facilities, and schools. Noise-sensitive land uses where people typically sleep are typically more sensitive to noise during nighttime hours (when people are typically sleeping). Recreational areas where quiet is an important part of the environment as well as some commercial areas, such as outdoor restaurant seating areas, can also be considered sensitive to noise.

## Overview of Ground-borne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are typically used to quantify vibration amplitude; one is peak particle velocity (PPV); another is root-mean-square (RMS) velocity. PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. RMS velocity is defined as the average of the squared amplitude of the signal. Vibration is typically measured in inches per second or millimeters per second.

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 PPV.

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<sup>3</sup> The 1.5 dBA variation in attenuation rate (6 dBA vs. 7.5 dBA) can result from ground-absorption effects, which occur as sound travels over soft surfaces such as soft earth or vegetation (7.5 dBA attenuation rate) versus hard surfaces such as pavement or very hard-packed earth (6 dBA rate) (U.S. Housing and Urban Development. 1985. *The Noise Guidebook*, p. 24. Available: <https://www.hudexchange.info/onecpd/assets/File/Noise-Guidebook-Chapter-4.pdf>. Accessed: May 20, 2020.)

<sup>4</sup> U.S. Environmental Protection Agency. 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. Appendix B, Table B-4, p. B-6. March.

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:<sup>5</sup>

$$PPV = PPV_{ref} \times (25/Distance)^{1.5}$$

PPV<sub>ref</sub> is the reference PPV at 25 feet (**Table 4.11-3, p. 4.11-7**).

### Construction Vibration

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile-driving, excavation equipment and vibratory compaction equipment typically generates the highest construction-related ground-borne vibration levels. The activities that are typical of single-impact (transient) or low-rate, repeated impact vibration include blasting and the use of drop balls, impact pile drivers, “pogo stick” compactors, and crack-and-seat equipment.<sup>6</sup> Typically, ground-borne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. In general, such vibration is only an issue when sensitive receptors are located in close proximity. Since rubber tires provide vibration isolation, rubber-tire vehicles rarely create substantial ground-borne vibration effects unless there is a discontinuity or bump in the road that causes the vibration. The PPV descriptor is the most common measure of construction vibration. Table 4.11-3 summarizes typical vibration levels generated by construction equipment at a reference distance of 25 feet and other distances, as determined with use of the attenuation equation above.<sup>7</sup> **Tables 4.11-4 and 4.11-5, p. 4.11-7**, summarize the guidelines developed by the California Department of Transportation (Caltrans) for annoyance and damage potential from the transient and continuous vibration that is usually associated with construction activity.

With the exception of long-term occupational exposure, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep or interfere with activities. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Vibration may be found to be annoying at much lower levels than those shown in **Table 4.11-4, p. 4.11-7**, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. On the other hand, persons exposed to elevated ambient vibration levels such as people in an urban environment may tolerate a higher vibration level. People may tolerate infrequent, short-duration vibration levels, but human annoyance to vibration becomes more pronounced if the vibration is continuous or occurs frequently.

As shown in **Table 4.11-5, p. 4.11-7**, high levels of vibration can damage fragile buildings or interfere with sensitive equipment. Depending on the age of the structure and type of vibration (transient, continuous, or frequent intermittent sources), vibration levels as low as 0.5 to 2.0 in/sec PPV can damage a structure.

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<sup>5</sup> Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment*. FTA Report 0123. Available: [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\\_0.pdf](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: August 10, 2020.

<sup>6</sup> Ibid.

<sup>7</sup> California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed: May 20, 2020.

**Table 4.11-3. 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 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](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: August 10, 2020.

**Table 4.11-4. Vibration Annoyance Potential Criteria Guidelines**

Human Response	Maximum PPV (inches per second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.0	0.40

Source: California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed: May 20, 2020.

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 4.11-5. Vibration Damage Potential Threshold Criteria Guidelines**

Structure and Condition	Maximum PPV (inches per second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.10
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.30
New residential structures	1.0	0.50
Modern industrial/commercial buildings	2.0	0.50

Source: California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed: May 20, 2020.

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.

### 4.11.2.1 Existing Noise Environment

#### Project Site

This section describes the existing noise environment at the project site, inclusive of the Specific Plan area and the off-site improvement areas.

#### Regional and Local Setting

The major noise sources affecting the project site vicinity are vehicular traffic, railroad activity, aircraft, and nearby commercial/industrial activities. The approximately 26.5-acre Specific Plan area is in the City of South San Francisco, northwest of U.S. 101 and Interstate (I) 380 interchange. Specifically, the Specific Plan area is located on the border of the City of South San Francisco and the City of San Bruno. The surrounding area is largely developed with commercial, industrial, and warehouse facilities to the north and east. These types of uses tend to have a higher prevalence of loading activities or require the intermittent testing of emergency generators, which can increase noise levels in the vicinity. Predominately single-family residences are located to the south of the project site, and the San Bruno BART station, The Shops at Tanforan, and San Bruno Towne Center are located to the west. The nearest residential land uses are located immediately south of the Specific Plan area on Tanforan Avenue in the City of San Bruno. The Specific Plan area is approximately 0.1 mile from the San Bruno BART station, approximately 0.75 mile from the San Bruno Caltrain station, approximately 1.5 miles from the South San Francisco Caltrain station and 1.1-mile northwest of San Francisco International Airport (SFO). The off-site improvement areas are located adjacent to the Specific Plan area in the jurisdictions of the City of South San Francisco (City) and the City of San Bruno. Together, the approximately 26.5-acre Specific Plan area and off-site improvement areas comprise the approximately 33-acre project site.

#### Existing Uses at the Project Site

Existing uses within the Specific Plan area, which encompasses seven parcels, include a variety of occupied and unoccupied office, industrial, warehouse, and storage facilities. The existing structures within the Specific Plan area total nearly 344,000 square feet and include approximately 380 surface parking spaces. Surface parking lots and storage areas are interspersed among the buildings. The Specific Plan area currently lacks internal circulation; there are no routes through the project site from South Maple Avenue on the west to South Linden Avenue on the east. The off-site improvement areas consist of existing rights-of-way and easements developed with circulation and utility infrastructure improvements. The topography of the project site and surrounding area is relatively flat, with a slight slope toward the northeast. As further described in Chapter 3, *Project Description*, Phase 1 would involve the demolition of all existing uses within the Specific Plan area.

#### Existing Noise-Sensitive Uses in the Vicinity

The South San Francisco General Plan Noise Element defines sensitive land uses as including residences, schools, places of worship and hospitals.<sup>8</sup> The nearest noise-sensitive land uses to the project site are the residences located south of the Specific Plan area along Tanforan Avenue. These residences are approximately 55 feet away from the southernmost portion of the project site (and Phase 1 site) construction areas. Off-site improvements are proposed along Tanforan Avenue, construction for which could temporarily occur as close as 10 feet from these residences. The nearest

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<sup>8</sup> South San Francisco General Plan, Noise Element, p. 9-2

church to the project site appears to be located within the Shops at Tanforan, over 500 feet from the project site across Huntington Avenue. The nearest school to the project site is the South San Francisco High School, approximately 0.6 mile north of the project site. There are no hospitals in proximity to the project site. Although hotels are not specifically listed in the Noise Element as noise sensitive land uses, the Sonesta ES Suites San Francisco Airport San Bruno hotel is located west of the project site (west of the Centennial Way Trail), as close as 250 feet from proposed Specific Plan construction areas and approximately 200 feet from the nearest off-site improvement area (i.e., the proposed Rule 20 undergrounding work improvements along Maple Avenue and Huntington Avenue intersection improvements)<sup>9</sup>. This hotel is located in proximity to State Road 82 and I-380, in addition to adjacent arterial roadways, all of which generate traffic noise. Noise reduction and insulation features are typically included in the design of these near-freeway hotels, although specific noise reduction features for this hotel have not been confirmed. Other land uses in the immediate project vicinity are primarily commercial and light industrial uses, which are not considered to be noise sensitive.

### Existing Noise Levels

The existing ambient noise environment at the project 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 local streets and freeways (e.g., U.S. 101 and I-380) is typically the dominant noise source in urban areas. Traffic noise is the dominant source of noise in the project vicinity. In addition to traffic noise, noise from aircraft traveling to or from SFO, approximately 1.1 miles to the southeast, is audible at the project site.

Because of state and local COVID-19 shelter-in-place orders that were in effect since March 2020 and during the time when the environmental impact report (EIR) was prepared, modeling of existing noise levels was based on traffic data from 2019 rather than noise measurements taken in the field. Traffic noise is usually the dominant source of overall ambient noise in urban areas. Fieldwork conducted during the shelter-in-place orders would not accurately capture typical traffic noise levels given that many schools and businesses were closed and many people were working remotely, thereby decreasing traffic volumes. In addition, although other sources of noise, including loading or equipment noise in industrial areas and noise from public transportation sources such as BART and Caltrans, could result in increases to the ambient noise level, it is difficult to predict how these sources would affect a 24-hour average ambient noise level without conducting measurements. In addition, it is more conservative to underestimate than overestimate existing ambient noise levels because the higher the ambient noise, the more noise a project can contribute to the environment without causing a specific decibel level to increase over the estimated ambient level. Therefore, the modeled traffic noise levels provide a reasonable approximation for typical ambient noise levels in the vicinity of the project site, and are the most appropriate method to characterize ambient noise levels for the purpose of this analysis.

Estimates of existing ambient noise levels at and near the project site were based on traffic noise modeling that relied on traffic data provided by Fehr & Peers and data based on the Federal Highway Administration (FHWA) Traffic Noise Model, version 2.5. Refer to **Table 4.11-6, p. 4.11-10**, for modeled existing noise levels along roadway segments in the general project vicinity.

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<sup>9</sup> As measured on Google Earth.

**Table 4.11-6. Modeled Existing Noise Levels in the Specific Plan Vicinity**

<b>Roadway</b>	<b>Segment</b>	<b>Existing Noise Level (dBA L<sub>dn</sub>)</b>
Sneath Lane	Between I-280 and Cherry Avenue	66.5
Sneath Lane	Between Cherry Avenue and El Camino Real	69.7
El Camino Real	Between Sneath Lane and I-380	71.3
El Camino Real	Between I-380 on-/off-ramps	71.7
Sneath Lane	Between El Camino Real and Huntington Avenue	64.9
Huntington Avenue	Between San Bruno Ave and Forest Lane	63.9
Huntington Avenue	Between Forest Lane/Herman Street and Sneath Lane	63.6
San Mateo Avenue	Between South Linden and South Airport Boulevard	67.6
South Linden Avenue	Between Grand Avenue and San Mateo Avenue	67.1
South Linden Avenue	Between Dollar Avenue and San Mateo Avenue	60.5
Tanforan Avenue	Huntington Avenue and Dollar Avenue	58.6
South Maple Avenue	Tanforan Avenue and Victory Avenue	60.5
Dollar Avenue/Herman Street	Between Tanforan Avenue and Scott Street	60.8

Note: Because of the COVID-19 shelter-in-place orders that were in effect when the EIR was prepared, modeling of existing noise levels was based on traffic data for 2019 rather than noise measurements taken in the field. Traffic noise is usually the dominant source of overall ambient noise in urban areas. Fieldwork conducted during the shelter-in-place orders would not accurately capture typical traffic noise levels, with schools and many businesses closed and many people working remotely, thereby decreasing traffic volumes. Therefore, the modeled traffic noise levels provide a reasonable approximation for typical ambient noise levels in the vicinity of the project site.

Source: Traffic volumes provided by Fehr & Peers. Modeling relied on a spreadsheet that was based on the FHWA Traffic Noise Model, version 2.5, using a fixed distance of 33 feet from the roadway centerline (i.e., the approximate closest distance to receptors from roadway centerlines along the modeled segments).

To provide additional information about ambient noise levels in the project vicinity, noise measurements from the 410 Noor Avenue Noise Study,<sup>10</sup> a noise study done for a nearby housing development approved by the City in December 2020, are included in **Table 4.11-7** and **Table 4.11-8, p. 4.11-11**. The Noor Avenue Noise Study measurements provide additional context regarding the project site's existing setting because of the proximity of the 410 Noor Avenue site to the proposed project site (i.e., approximately 700 feet northwest of the project site). Noise conditions would be expected to be similar at the 410 Noor Avenue site and the project site, with the Noor Avenue site potentially having slightly lower noise levels as it is further from Huntington Avenue and Sneath Lane than the project site. Although the 410 Noor Avenue noise measurements are from 2017, the dominant noise source was nearby traffic activity. For noise from traffic to increase by 3 dB (considered a barely perceptible change), a doubling of traffic volumes would have to occur. It is unlikely that a doubling of traffic has occurred since these measurements were taken in 2017. Therefore, it is expected that these measurements would likely be similar (i.e., within approximately 3 dB) to measurements taken in the present day. Note that these measurements are not quantitatively used in the analysis and are included for informational purposes only.

<sup>10</sup> City of South San Francisco, *410 Noor Residences Environmental Noise Study*, February 2020, Available: [City of South San Francisco - File #: 20-869 \(legistar.com\)](#) (Exhibit H). Accessed: March 2, 2021.

**Table 4.11-7. Long-Term Noise Measurements from the 410 Noor Avenue Noise Study**

Long-Term Measurement	Measurement Location and Approximate Distance to Southline Project Site	Start Date	End Date	5-day Average dBA CNEL
LT-1	Along Huntington Avenue between Noor Avenue and South Spruce Street (900 to 950 feet)	Thursday August 17, 2017	Tuesday August 22, 2017	71.7
LT-2	North of Noor Avenue, west of Huntington Avenue (900 to 950 feet)	Thursday August 17, 2017	Tuesday August 22, 2017	71.8

**Table 4.11-8. Short-Term Noise Measurements from the 410 Noor Avenue Noise Study**

Short-Term Measurement (15 minutes)	Measurement Location and Approximate Distance to Southline Project Site	Date/Time	dBA Leq	dBA Lmin	Single Event dBA Lmax
ST-1	North of Noor Avenue, west of Huntington Avenue, south of LT-2 (850 to 900 feet)	Wednesday August 16, 2017/1:35 p.m.	68	50	84, 86 (aircraft)
ST-2	South of South Spruce Street, west of Huntington Avenue, north of LT-1 (1,100 to 1,200 feet)	Wednesday August 16, 2017/2:20 p.m.	70	50	82, 90 (aircraft)
ST-3	North of Noor Avenue, west of Huntington Avenue and northwest of the LT-2 (1,100 to 1,50 feet)	Wednesday August 23, 2017/8:45 a.m.	53	46	89 (loud car)
ST-4	Northwest of the intersection of Noor Avenue and Huntington Avenue (700 to 750 feet)	Wednesday August 23, 2017/8:45 a.m.	65	51	89 (loud car)

## Phase 1 Site

The Phase 1 site is located along the southern perimeter of the proposed Specific Plan area, just north of Tanforan Avenue, west of Dollar Avenue/Herman Street, and west of South Maple Avenue. The existing regional and local setting, as well as the existing uses at the Phase 1 site, existing noise-sensitive uses, and existing noise levels in the vicinity, are the same as described above for the proposed Specific Plan area.

### 4.11.3 Regulatory Framework

This section provides a summary of noise and vibration plans and policies that are relevant to the proposed project. 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 provide 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.

#### **4.11.3.1 State**

##### **California Noise Insulation Standards (Code of Regulations, Title 24)**

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.

##### **California Noise Control Act of 1973**

The California Noise Control Act finds that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The act also finds that there is a continuous and increasing bombardment of noise in urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare.

#### **4.11.3.2 Regional**

##### **Comprehensive Airport Land Use Compatibility Plan for SFO (2012)<sup>11</sup>**

Refer to Section 4.8, *Hazards and Hazardous Materials*, and Section 4.10, *Land Use and Planning*, of this EIR for a discussion of the 2012 SFO Airport Land Use Compatibility Plan (ALUCP). Noise associated with airport and aircraft operations is considered one of the main areas of concern for airport land use commissions, especially in highly urbanized areas like the Bay Area.

According to the 2012 SFO ALUCP, the Airport Influence Area (AIA), the geographic area subject to the land use compatibility considerations identified in the ALUCP, is divided into two areas: Area A and Area B. Area A encompasses all of San Mateo County and the incorporated cities within it. Area B roughly follows noise compatibility and safety zone contours. The project site is located within both Area A and Area B and, as such, the compatibility criteria contained within the ALUCP are applicable to land use plans and development within the project site.

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<sup>11</sup> City/County Association of Governments. 2012. *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport*. November. Available: [https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated\\_CCAG\\_ALUCP\\_November-20121.pdf](https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated_CCAG_ALUCP_November-20121.pdf). Accessed: May 4, 2021.

The 2012 SFO ALUCP has four primary areas of concern, two of which pertain to noise, as listed below.

- a) 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.
- b) Overflight 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 ALUCP establishes boundaries within which noise compatibility policies apply. These boundaries depict “noise impact areas” or noise compatibility zones, defined by noise contours at the 65 dB CNEL, 70 dB CNEL, and 75 dB CNEL contours. Noise compatibility policies apply to each noise impact area or contour. Commercial uses (e.g., offices and business) or industrial and manufacturing uses and related structures are considered compatible without restrictions within all of these noise impact areas.

As shown in **Figure 4.10-3** in Section 4.10, *Land Use and Planning*, of this EIR, a portion of the project site (including approximately half of the Specific Plan area) is within the 65 dB CNEL noise contour, and the remaining portion of the project site (including the remainder of the Specific Plan area), is within the 70 dB noise contour. The Phase 1 Site is divided between the two noise contour areas. Areas within the boundaries of CNEL contour map are subject to ALUCP noise compatibility policies set forth in Policy NP-2, Airport/Land Use Compatibility Criteria and Table IV-1 of the ALUCP. As described in Table VI-1 of the ALUCP, commercial land uses, including office, business and professional, and general retail uses, in addition to industrial and produces uses, are considered compatible uses in all of the designated noise compatibility zones in the ALUCP without restrictions.

#### **4.11.3.3 Local**

Although the Specific Plan area is within South San Francisco, some of the off-site improvements are within the City of San Bruno. Furthermore, development within the Specific Plan area has the potential to affect sensitive receptors in San Bruno. For this reason, both City of South San Francisco and City of San Bruno noise regulations and guidelines are relevant to the assessment of project impacts. The City of San Bruno noise regulations and guidelines would apply to implementation of the off-site improvements.

#### **South San Francisco General Plan**

The 1999 South San Francisco General Plan (General Plan) provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City’s plans and policy standards. The General Plan contains a Noise Element, which is intended to ensure compliance with state requirements and promote a comprehensive, long-range program of achieving acceptable noise levels throughout the City.

The City General Plan includes the following policies applicable to noise and vibration:

- Policy 9-I-7: Where site conditions permit, require noise buffering for all noise-sensitive development subject to noise generators producing noise levels greater than 65 dB CNEL. This noise attenuation method should avoid the use of visible sound walls, where practical.

- Policy 9-I-8: Require the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques for new developments deemed to be noise generators.

Local plans, policy actions, or development activities within SFO's 65 dB CNEL contour require approval from the San Mateo County Airport Land Use Commission (ALUC) prior to local permit issuance. To assist with this process, the ALUC has established noise/land use compatibility standards, which are the basis for plan review; these standards are included in the City's General Plan Noise Element. The City also applies these standards in its review of development applications within the 65 dB CNEL boundary. The standards are shown below in **Table 4.11.9**, below.

### South San Francisco Municipal Code

Chapter 8.32, *Noise Regulations*, of the South San Francisco Municipal Code (Noise Ordinance) contains the City's noise regulations. The Municipal Code's quantitative noise limits and construction noise regulations are described below.

**Table 4.11-9. General Plan Land Use Criteria for Noise-Affected Areas**

Land Use	CNEL Range	General Land Use Criteria
Residential	Less than 65	Satisfactory; no special insulation requirements
	65 to 70	Development requires analysis of noise reduction requirements and insulation as needed
	Over 70	Development should not be undertaken
Commercial	Less than 70	Satisfactory; no special insulation requirements
	70 to 80	Development requires analysis of noise reduction requirements and insulation as needed
	Over 80	Airport-related development only; special noise insulation should be provided
Industrial	Less than 75	Satisfactory; no special insulation requirements
	75 to 85	Development requires analysis of noise reduction requirements and insulation as needed
	Over 85	Airport-related development only; special noise insulation should be provided
Open	Less than 75	Satisfactory; no special insulation requirements
	Over 75	Avoid uses involving concentrations of people or animals

Source: South San Francisco General Plan, Noise Element.

**Table 4.11-10**, below, specifies the maximum permissible sound levels to be generated by any property within the City, according to Section 8.32.030 of the City's Noise Ordinance. The maximum allowable level is determined by the land use category of the receiving property as measured on any receiving property. All references to dB in the code use the A-weighted scale. Under the City's Noise Ordinance, is unlawful for any person to operate or cause to be operated any source of sound at any location within the City, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property to exceed the limits as specified in **Table 4.11-10**, with limited exceptions including for permitted construction activity. If the measured ambient level for any area is higher than the

standard set in the South San Francisco Municipal Code for a particular use (see **Table 4.11-10**), then the applicable threshold for that use is 5 dB above the measured ambient level.<sup>12</sup> Note that, although these exact zoning district designations are no longer in effect, the City applies these guidelines generally to the corresponding current zoning districts.

Section 20.300.010(F) of the South San Francisco Municipal Code states that no vibration shall be transmitted through the ground and discernible without the aid of instruments by a reasonable person at the lot lines of the site. Vibration from temporary construction, demolition, and vehicles that enter and leave the subject parcel (e.g., construction equipment, trucks) are exempt from this standard.

**Table 4.11-10. City of South San Francisco Receiver Site Noise Level Standards**

Land Use Category	Time Period	Noise Level (dB) <sup>a</sup>
R-E, R-1, and R-2 zones or any single-family or duplex residence in a specific plan district	10:00 p.m.–7:00 a.m.	50
	7:00 a.m.–10:00 p.m.	60
R-3 and D-C zones or any multi-family residence or mixed residential/commercial use in any specific plan district	10:00 p.m.–7:00 a.m.	55
	7:00 a.m.–10:00 p.m.	60
C-1, P-C, Gateway, and Oyster Point Marina specific plan districts or any commercial use in any specific plan district	10:00 p.m.–7:00 a.m.	60
	7:00 a.m.–10:00 p.m.	65
M-1, P-1	Anytime	70

Source: Table 8.32.030 of the South San Francisco Municipal Code.

<sup>a</sup> The noise level standard for each land use for a cumulative period of more than 30 minutes in any hour (L<sub>50</sub>). Standards increase for durations of less than 15 minutes per hour.

- Section 8.32.050 (d) of the South San Francisco Municipal Code identifies a special provision that allows construction activities with a City permit between the hours of 8:00 a.m. and 8:00 p.m. on weekdays, 9:00 a.m. and 8:00 p.m. on Saturdays, and 10:00 a.m. and 6:00 p.m. on Sundays and holidays (or at such other hours as may be authorized by the permit) if they meet at least one of the following noise limitations: No individual piece of equipment shall produce a noise level exceeding 90 dB at a distance of 25 feet. If the device is housed within a structure or trailer on the property, the measurement shall be made outside the structure at a distance as close to 25 feet from the equipment as possible.
- The noise level at any point outside the property plane of the project shall not exceed 90 dB.

## City of San Bruno Plans and Policies

As discussed above and further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno (San Bruno) but would not develop any new structures or new land uses in San Bruno. The improvements would occur on areas that are already developed with existing circulation improvements. The specific off-site improvements located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing utilities infrastructure within Huntington Avenue to

<sup>12</sup> South San Francisco Municipal Code, Section 8.32.030(a), (b)

conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. This section identifies and evaluates the proposed project's consistency with relevant policies from the San Bruno General Plan and the San Bruno Municipal Code related to noise and vibration as related to the portions of the off-site improvements located within San Bruno's jurisdiction. For additional discussion of the proposed project's consistency with San Bruno land use plans and policies, refer to Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*.

### San Bruno General Plan

The 2009 San Bruno General Plan outlines a vision for the long-range physical and economic development of the community through 2025. This vision includes balanced development, conservation of residential neighborhoods, and revitalization of downtown and other aging commercial and industrial areas. The San Bruno General Plan land use designations, policies, and implementing actions will guide City of San Bruno officials in making decisions on private development proposals and public facilities. The San Bruno General Plan contains a Health and Safety Element, which includes a number of goals and policies related to noise. Specifically, policies that are relevant to the proposed project's off-site improvements, or the proposed project's effects on San Bruno noise sensitive receptors, include:

- HS-F: Protect the health and comfort of residents by reducing the impact of noise from automotive vehicles, San Francisco International Airport, railroad lines, and stationary sources.
- HS-32: Encourage developers to mitigate ambient noise levels adjacent to major noise sources by incorporating acoustical site planning into their projects. Utilize the City's Building Code to implement mitigation measures, such as:
  - Incorporating buffers and/or landscaped berms along high-noise roadways or railways;
  - Incorporating traffic calming measures and alternative intersection design within and/or adjacent to the project;
  - Using reduced-noise pavement (rubberized asphalt); and
  - Incorporating state-of-the-art structural sound attenuation measures.
- HS-34: Discourage noise sensitive uses such as hospitals, schools, and rest homes from locating in areas with high noise levels. Conversely, discourage new uses likely to produce high levels of noise from locating in areas where noise sensitive uses would be impacted.
- HS-38: Require developers to mitigate noise exposure to sensitive receptors from construction activities. Mitigation may include a combination of techniques that reduce noise generated at the source, increase the noise insulation at the receptor, or increase the noise attenuation rate as noise travels from the source to the receptor.
- HS-44: Adopt traffic mitigations—including reduced speed limits, improved paving texture, and traffic signal controls—to reduce noise in areas where residential development may front on high-traffic arterials, such as El Camino Real.
- HS-45 Where feasible and appropriate, develop and implement noise reduction measures when undertaking improvements, extensions, or design changes to San Bruno streets.

In addition, the Health and Safety Element outlines acceptable noise limits for new land uses outside the airport's noise-affected areas, as shown in **Table 4.11-11**, below.

**Table 4.11-11. Land Use Compatibility for Community Noise Environments**

LAND USE CATEGORY	EXTERIOR DAY/NIGHT NOISE LEVELS DNL or Ldn, dB					
	55	60	65	70	75	80
Residential—Single Family						
Residential—Multiple Family						
Transient Lodging—Motels, Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business, Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

**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.

### **San Bruno Municipal Code**

The San Bruno Municipal Code contains regulations in Section 6.16 (the San Bruno Noise Ordinance) pertaining directly to noise. This section discusses noise limits for various noise sources in the jurisdiction. The relevant guidelines from the San Bruno 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 shall govern (Sound Level A, decibels). Residential zone: 10:00 p.m. to 7:00 a.m., 45 dB; 7:00 a.m. to 10:00 p.m., 60 dB. (Ordinance 1354, Section 1; prior code: Section 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 10 dB shall be deemed to be prima facie evidence of a violation of the provisions of this chapter. However, during the period of 7:00 a.m. to 10:00 p.m., the ambient base level may be exceeded by 20 dB for a period not to exceed 30 minutes during any 24-hour period. (Ordinance 1354, Section 1; prior code: Section 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 that would cause the noise level at the property plane of any property to exceed the ambient base noise level by more than 10 dB. However, during the period of 7:00 a.m. to 10:00 p.m., the ambient base level may be exceeded by 20 dB for a period not to exceed 30 minutes during any 24-hour period. (Ordinance 1354, Section 1; prior code: Section 16-4.6).

#### *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 that shall exceed between the hours of 7:00 a.m. and 10:00 p.m. a noise level of 85 dB, as measured at 100 feet, or exceed between the hours of 10:00 p.m. and 7:00 a.m. a noise level of 60 dB, as measured at 100 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. (Ordinance 1354, Section 1; prior code: Section 16-4.7).

## **4.11.4 Impacts and Mitigation Measures**

This section describes the impact analysis related to noise and vibration for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) potentially significant impacts accompany each impact discussion, when necessary.

#### 4.11.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant noise and vibration impact if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies;
- Generate excessive ground-borne vibration or ground-borne noise levels; or
- 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, expose people residing or working in the project area to excessive noise levels.

The CEQA Guidelines do not provide a quantitative measurement to define “substantial” noise or “excessive” ground-vibration. Therefore, the following quantifiable thresholds were used to evaluate the significance of impacts, based on applicable regulations, ordinances, and policies.

#### Construction

Construction activities generate temporary noise level increases in the vicinity of project sites. Since noise generated by construction would be short-term and vary considerably day-to-day, construction noise is evaluated differently than operational noise. Prolonged construction activities could cause interference with normal activities at nearby land uses.

Chapter 8.32 of the City of South San Francisco’s Municipal Code establishes criteria for construction noise. Based on those requirements, for the purposes of this assessment, construction noise is considered significant if it:

- Occurs during daytime allowable hours and exceeds the provisions of the City of South San Francisco Municipal Code Section 8.32.050(d) (i.e., any individual piece of equipment exceeding a noise level exceeding 90 dB at a distance of 25 feet or 90 dB at any point outside of the property plane); or
- Occurs outside of daytime hours and causes ambient noise levels to exceed maximum permissible sound levels at nearby noise receptors (determined based on land use category of the receiving property, as identified in **Table 4.11-10, p. 4.11-15**).

Although the bulk of the project site is located within the City of South San Francisco, including all proposed structures, limited construction work would occur in San Bruno in connection with implementation of certain offsite improvements. In addition, construction that takes place in the City of South San Francisco may generate noise at nearby receptors in San Bruno. Accordingly, to provide for a thorough analysis, noise generated in San Bruno and activities that generate noise at receptors within San Bruno are compared to the applicable City of San Bruno criteria.

- For daytime construction noise generated in or experienced by receptors in San Bruno, construction noise generated between the hours of 7:00 a.m. and 10:00 p.m. was assessed to determine if combined noise levels at a distance of 100 feet would be below 85 dBA.
- For nighttime construction noise generated in or experienced by receptors in San Bruno, combined noise levels were compared to the appropriate nighttime noise criterion of 60 dBA, as measured at 100 feet during the nighttime hours of 10:00 p.m. and 7:00 a.m.

### Construction Haul Truck Noise

The municipal codes of San Bruno and South San Francisco do not include specific thresholds pertaining to construction haul truck noise. Therefore, anticipated daily haul truck noise was assessed to determine if a 3 dB increase over ambient noise levels, considered to be “barely perceptible,” would occur as a result of hauling activity.

### Operational Noise and Exposure

South San Francisco Municipal Code Section 8.32.030 defines the maximum permissible sound levels as measured at specified land uses. As identified in **Table 4.11-10, p. 4.11-15**, maximum permissible sound levels are determined by the land use category of the receiving property.

### Traffic Noise

In general, an increase of 3 dBA in traffic noise is considered just noticeable, a change of 5 dBA in traffic noise is clearly noticeable, and a change of 10 dBA in traffic noise is perceived as a doubling. This EIR applies the following thresholds of significance for traffic-related noise increases:

- A project-generated increase of 5 dBA in traffic noise, if the resulting traffic noise would remain below the normally acceptable range at a noise-sensitive land uses (i.e., CNEL or  $L_{dn}$  in South San Francisco of 60 dBA for single-family residences, 65 dBA for multi-family residences, and 70 dBA for offices and retail; CNEL or  $L_{dn}$  in San Bruno of 65 dBA or less for residences and childcare and 70 dBA or less for offices and retail).
- A 3 dBA or greater increase in traffic noise resulting from project implementation occurs when the future noise level is above the normally acceptable range for a noise-sensitive land use.

A cumulative impact related to traffic noise would be identified if:

- A Project-generated increase of greater than 1 dBA to a cumulative traffic noise increase of 3 dBA or more, and where cumulative traffic noise levels would be *above* the normally acceptable range at a noise-sensitive land use
- A Project-generated increase of greater than 1 dBA to a cumulative traffic noise increase of 5 dBA or more, and where cumulative traffic noise levels would remain *within* the normally acceptable range at a noise-sensitive land use

### Construction Vibration

The following criteria are applied in this analysis for identifying potentially significant construction-period vibration impacts:

- Generation of continuous/frequent intermittent construction-related ground-borne vibration levels exceeding the “strongly perceptible” level of 0.1 in/sec peak particle velocity (PPV) at off-site sensitive receptors (i.e., at residences, schools, childcare centers, etc.) during nighttime hours when people normally sleep.
- Generation of continuous/frequent intermittent construction-related ground-borne vibration levels exceeding the modern industrial/commercial buildings damage standard of 0.5 in/sec PPV at on-site or off-site commercial/industrial buildings or exceeding the “older residential structure” damage standard of 0.3 PPV in/sec and nearby older residential structures (i.e., structural damage).

#### 4.11.4.2 Approach to Analysis

This noise impact analysis evaluates temporary noise and vibration generated by construction activities, operational noise generated by on-site mechanical equipment, and traffic noise increases associated with project-related changes in traffic patterns for the proposed project and Phase 1.

##### **Buildout Scenario Studied (Life Sciences Scenario and Office Scenario)**

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyzes the buildout scenario that represents the “worst-case” scenario for the resources area being analyzed. The “worst-case” scenario is the scenario with the greatest potential to result in significant impacts.

For the purposes of the noise analysis, construction noise and vibration effects would generally be the same under either scenario since either scenario would involve substantially similar equipment mixes and construction activities on a maximum activity day.

With regard to operational sources of noise, both scenarios would be expected to require the use of heating, ventilation, and cooling equipment as well as emergency generators, which create noise during testing. For operational mechanical equipment noise (and most other operational noise topics), noise impacts would generally be the same under either buildout scenario. However, ventilation fans would be required for R&D uses but would not be expected to be required for office uses. Therefore, the Life Sciences Scenario (including ventilation fans) is the analysis scenario studied for mechanical equipment noise. With regard to traffic noise, the worst-case scenario, or the scenario that would generate the greatest number of vehicle trips, is the Office Scenario. Therefore, traffic volumes under the Office Scenario were used to evaluate to project-related traffic noise.

#### **Construction and Demolition Impacts**

##### **Noise – Daytime Hours**

Noise impacts associated with on-site demolition and construction were evaluated using the noise calculation method and construction equipment noise data in the FHWA Roadway Construction Noise Model. The FHWA data includes the A-weighted  $L_{\max}$  noise levels 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; the utilization factor is used to estimate  $L_{\text{eq}}$  values from  $L_{\max}$  values. For example, the  $L_{\text{eq}}$  value for a piece of equipment that operates at full power over 50 percent of the specified time period is 3 dB less than the  $L_{\max}$  value.<sup>13</sup>

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<sup>13</sup> 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](https://www.gsweventcenter.com/Draft_SEIR_References/2006_01_Roadway_Construction_Noise_Model_User_Guide_FHWA.pdf). Accessed: May 20, 2020.

Construction equipment data were provided by the Phase 1 applicant for the Phase 1 construction and demolition activities. This Phase 1 construction equipment data can be used as a reasonable proxy for construction of the Specific Plan buildout, generally. Construction noise levels of typical equipment from the FHWA Roadway Construction Noise Model user guide were compared to the applicable construction noise thresholds in South San Francisco and San Bruno, as applicable, during daytime hours. Specifically, in the City of South San Francisco, construction noise generated between the hours of 8:00 a.m. and 8:00 p.m. during weekdays was analyzed to determine if either all individual equipment would result in noise levels below 90 dBA at 25 feet or if combined construction noise at the property plane would be below 90 dBA. In the City of San Bruno, construction noise generated between the hours of 7:00 a.m. and 10:00 p.m. was assessed to determine if combined noise levels at a distance of 100 feet would be below 85 dBA.

### Noise – Non-Daytime Hours

FHWA Roadway Construction Noise Model calculation methods were used to estimate reasonable worst-case combined noise. Noise from the loudest three pieces of equipment proposed for use during a single construction phase was calculated. Estimated construction noise levels were compared to applicable local thresholds for non-daytime hours (or hours outside of the “daytime hours” defined in each jurisdiction, as specified below). Specifically, combined noise levels were compared to the maximum permissible sound levels for the adjacent land use, with the most sensitive existing adjacent land use within the City of South San Francisco being commercial, as identified in **Table 4.11-10, p. 4.11-15**. For this analysis,  $L_{eq}$  is considered a reasonable proxy for assessing noise against the  $L_{50}$  standards<sup>14</sup> in **Table 4.11-10, p. 4.11-15**.

Nighttime construction noise levels generated in South San Francisco between the hours of 10:00 p.m. and 7:00 a.m. are therefore compared to the nighttime criterion of 60 dBA at the nearest commercial land use and 55 dBA at the nearest multi-family residential use (including the approved 410 Noor Avenue project), which applies between the hours of 10:00 p.m. and 7:00 a.m. Construction noise generated during the hour of 7:00 a.m. to 8:00 a.m. (which is the time period prior to commencement of the daytime exemption for construction noise) is compared to the daytime noise threshold of 65 dBA, consistent with the City of South San Francisco’s Noise Ordinance.

For nighttime construction noise generated in or experienced by receptors in the City of San Bruno, combined noise levels were compared to the appropriate nighttime noise criterion of 60 dBA, as measured at 100 feet during the nighttime hours of 10:00 p.m. and 7:00 a.m., consistent with San Bruno’s Noise Ordinance.

### Vibration

As discussed above, construction equipment data were provided by the Phase 1 applicant for the Phase 1 construction and demolition activities. Notably, drilled cast-in-place piles would be required; no pile-driving would occur, which is often a key source of construction vibration.

Guidelines developed by Caltrans were used to assess potential vibration-related damage and annoyance effects (refer to **Table 4.11-4** and **Table 4.11-5, p. 4.11-7**).

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<sup>14</sup>  $L_{50}$  is the noise level standard for each land use for a cumulative period of more than 30 minutes in any hour.

## Haul Trucks

Existing noise levels without project haul trucks and existing noise levels with project haul trucks along haul route segments were modeled using a spreadsheet based on the FHWA Traffic Noise Model. Neither the City of South San Francisco nor the City of San Bruno has specific thresholds pertaining to construction haul truck noise. Therefore, anticipated daily haul truck noise was assessed to determine if a 3 dB, or “barely perceptible,” increase over ambient noise levels would occur at noise-sensitive receptors as a result of hauling activity.

This analysis assesses the potential noise impacts from construction-related haul trucks using the local roadway network related to project implementation. Construction details for Specific Plan development are not available at this time, including details about haul truck use. However, the haul truck usage for Phase 1 has been estimated by the Phase 1 applicant. The Phase 1 truck haul estimates are a reasonable proxy for estimating future haul truck activity under the remaining portions of the Specific Plan, generally; as such, this information is utilized for the haul truck noise analysis for the project buildout scenario. Specifically, the haul truck trip usage for the Specific Plan is approximated by scaling up the Phase 1 haul truck usage data based on square footage information for Phase 1 and the overall Specific Plan.

For Phase 1 construction, up to 192 round-trip haul truck trips could occur per day during the most hauling-intensive subphase of construction (i.e., during demolition and grading). According to the project applicant, Phase 1 would be the most hauling-intensive phase of all phases of the Specific Plan construction. Therefore, the Phase 1 worst-case haul truck noise modeling is also applicable to the Specific Plan. Although most subphases of construction would have fewer daily haul truck trips than this maximum, estimated maximum numbers of truck trips are analyzed to provide a reasonably conservative assessment of haul truck noise.

## Operation Impacts

### Traffic

Direct and cumulative traffic noise effects along nearby roadway segments resulting from project development were quantitatively modeled using average daily traffic (ADT), posted speeds, and existing vehicle-mix assumptions (i.e., the proportion of automobiles, trucks, buses, and other vehicles) provided by the project traffic engineer (Fehr & Peers). Traffic noise was provided for Existing, Year 2024 No Project, Year 2024 Plus Phase 1, Year 2040 No Project, and Year 2040 Plus Project. Quantitative modeling of traffic noise from the project was conducted using a spreadsheet that was based on the FHWA Traffic Noise Model, version 2.5 for the following conditions:

- Existing
- Year 2040 No Project
- Year 2040 Plus Project

The spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway according to the traffic volume, roadway speed, and vehicle mix predicted to occur under each condition. Traffic noise was evaluated in terms of how project-related noise increases could affect existing noise-sensitive land uses along the major project traffic access roadways. If significant traffic noise impacts were identified in the analysis of project buildout, a quantitative analysis of Phase 1 traffic-related noise would be required to identify Phase 1's contribution to the significant impact. However, because project-level impacts were determined to be less than significant, a

quantitative analysis of Phase 1 traffic is not required, since it can be inferred that Phase 1 traffic noise would also be less than significant (given that Phase 1 is a component of the overall project). In this case, a qualitative evaluation of Phase 1's traffic-related noise impacts is provided.

### Heating, Ventilation, and Cooling Equipment

Evaluations of operational noise impacts associated with proposed on-site activities and stationary sources of noise were based on information about the general proposed uses for the Specific Plan development and the proposed site plan layout and project specific information (provided by the project applicant) for Phase 1. Note that the portion of the Specific Plan area located closest to noise-sensitive land uses is the Phase 1 site. Therefore, the reasonable worst-case analysis of Specific Plan impacts related to heating, ventilation and cooling equipment focuses on the Phase 1 site. Note that future phases of the Specific Plan would include similar equipment, but would be located further from noise-sensitive uses. Noise at various distances from point sources (e.g., stationary operational equipment such as generators and heating and cooling equipment) was estimated using commonly accepted source noise data and a point-source attenuation of 6 dB per doubling of distance.

In accordance with applicable South San Francisco Municipal Code noise thresholds, the proposed mechanical equipment may not result in noise levels at nearby commercial land uses in excess of 65 dBA during the hours of 7:00 a.m. to 10:00 p.m. or in excess of 60 dBA during the hours of 10:00 p.m. to 7:00 a.m., or at nearby multi-family residential uses (including the approved 410 Noor Avenue project) in excess of 60 dBA during the hours of 7:00 a.m. to 10:00 p.m. or in excess of 55 dBA during the hours of 10:00 p.m. to 7:00 a.m. According to the South San Francisco Municipal Code, if measured ambient noise levels are higher than the standards presented in **Table 4.11-10, p. 4.11-15**, generated noise levels may exceed measured ambient noise levels by up to 5 dB. For purposes of this analysis, the thresholds outlined in **Table 4.11-10, p. 4.11-15**, which are conservative, are used.

Under the applicable San Bruno Municipal Code thresholds, noise levels from mechanical equipment must not exceed ambient conditions by 10 dB at the property plane of a sensitive use.

### Emergency Generator Testing

As described in Chapter 3, *Project Description*, the project would incorporate diesel generators to be utilized in cases of emergency power disruptions. While use of the generators would be limited to emergency circumstances, periodic testing would be required, as further described under the Impact NOI-1 analysis.

The evaluation of noise from testing project and Phase 1 emergency generators was based on assumptions about generator installations for future project uses as well as information related to the emergency generators proposed for Phase 1. Note that noise from operation of emergency generators during an emergency is considered exempt from local ordinances. However, the testing of emergency generators must comply with local noise limits for operational and equipment noise.

In accordance with applicable South San Francisco Municipal Code noise thresholds, emergency generator testing (although temporary) must comply with applicable noise criteria for adjacent commercial uses (i.e., 65 dBA during the hours of 7:00 a.m. to 10:00 p.m. or 60 dBA during the hours of 10:00 p.m. to 7:00 a.m.) and for nearby multi-family residential uses, including the approved 410 Noor Avenue project (i.e., 60 dBA during the hours of 7:00 a.m. to 10:00 p.m. or 55 dBA during the hours of 10:00 p.m. to 7:00 a.m.). In San Bruno, emergency generator testing

noise must not exceed San Bruno Municipal Code thresholds (i.e., a 10 dB increase over ambient). Noise from emergency generator testing at various distances was estimated using site plans, equipment specification data, and equipment layout information provided for Phase 1, along with the general point-source attenuation equation of 6 dB per doubling of distance.

### **Parking Garage Activity**

A parking structure (Parking Structure C) is proposed in the northeast portion of the Specific Plan area. The eastern portion of the “L-shaped” parking structure would be developed during Phase 1, and the northern portion would be developed in future phases. Parking garage activity noise during a reasonable worst-case hour after full buildout of the parking structure was estimated based on average peak hour segment volumes along the roadway segment (South Linden Avenue) that would provide access to the parking structure. Calculations from FTA’s *Transit Noise and Vibration Impact Assessment Manual*,<sup>15</sup> were used to estimate peak-hour parking activity noise at this location, and to determine if parking activity noise would result in perceptible increases in noise at sensitive receptors in the project vicinity.

### **Loading Dock Activity**

Loading dock noise is analyzed to determine if loading activity at the Specific Plan area would result in substantially greater noise levels in the vicinity of sensitive receptors compared with existing conditions. Although the amount of loading activity expected to occur under the project is not known at this time, general assumptions about the amount of loading expected under Phase 1 can be made with an understanding of the number of trips the Phase 1 area would generate and the expected vehicle mix (e.g., percentage of heavy trucks vs. personal vehicles). Based on this information, up to 12 heavy trucks would use the Phase 1 loading bays for loading/unloading activities on a given day. Although medium-size trucks (e.g., FedEx, UPS, USPS, and other local carriers) may also access the site, they generally do not involve long-term, noisy unloading activities. In addition, these types of trucks would use curb-side or temporary loading areas at the project site during business hours, generally for short periods of time. Note that the Phase 1 site includes the portion of the Specific Plan area located closest to noise-sensitive land uses along Tanforan Avenue. Therefore, the reasonable worst-case analysis of loading dock noise effects focuses on the Phase 1 site. Note that future phases of the Specific Plan would include similar loading docks, but these loading docks would be located further from noise-sensitive uses, and due to noise attenuation due to distance and intervening structures, would result in comparatively reduced potential noise effects to receptors.

Phase 1 includes two loading docks, one at Building 1, which has two loading bays and would also serve Building 2, and one at Building 7. Assuming an even split of daily loading activities across the three buildings, there could be up to four loading dock activities at each building per day, or eight total per day at the Building 2 loading bays and four at the Building 7 loading dock. During a typical hour, it is unlikely that there would be more than one truck loading or unloading at a given dock. However, it is possible that two trucks could be unloading or loading during a single worst-case hour at the Building 2 dock. Truck loading and unloading activity noise is assessed qualitatively to determine the potential for a substantial temporary increase in noise at nearby residential land

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<sup>15</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, FTA Report No. 0123, 2018, [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](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 August 10, 2020.

uses; a quantitative analysis of loading noise would only be necessary if the development was a loading-intensive use (such as a distribution center).

#### **Potential for Noise from New Stationary Sources to Combine**

The evaluation of stationary operational noise impacts is based on the potential for noise from the individual sources described above to exceed the applicable noise ordinance limits or criteria for each respective source. While it is possible for noise levels from multiple stationary sources to combine and result in greater noise levels, overall, noise levels are generally dominated by the loudest and closest source of noise. In order to ensure a reasonably conservative analysis, the analysis of each individual source includes realistic worst-case assumptions, based on the upper level of estimated noise levels that each source may generate at the closest reasonable distance between the source and the receiver. In addition, the municipal code criteria for operational noise sources in South San Francisco and San Bruno are based on individual equipment and/or sources because enforcement of noise ordinance limits would typically be based on measuring the noise emanated by an individual source. For these reasons, the analysis of stationary operational noise impacts evaluates potential noise levels from individual pieces of equipment or noise sources associated with the project, rather than theoretical scenarios with multiple pieces of equipment operating at the same time.

#### **4.11.4.3 Impact Evaluation**

**Impact NOI-1a: Project construction would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. (Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable)**

##### **Project**

Although specific details are known regarding Phase 1 construction and demolition, construction details for future phases under the Specific Plan are not known in detail at this time. In general, the Specific Plan area would be developed with office and/or R&D uses, totaling up to 2,800,000 square feet. Development of the proposed project would include numerous commercial buildings, a parking garage, a publicly-accessible amenity building, and public open spaces. A phased development process for buildout of the Specific Plan is anticipated. The construction activities that would be closest to sensitive receptors (i.e., the residential uses fronting Tanforan Avenue) would occur during Phase 1. Therefore, because construction impact determinations are based on reasonable worst-case construction noise levels at the nearest sensitive uses, Phase 1 construction activities are the focus of the project construction noise and analysis.

Construction of Phase 1 is anticipated to commence in 2022 and end in 2024, lasting approximately 30 months. Some construction would take place within Tanforan Avenue, but most construction activities would occur north of Tanforan Avenue and at least 55 feet away from the nearest residences south of Tanforan Avenue. Noise levels for the equipment proposed for Phase 1 of the project, which is expected to be similar to equipment proposed for future project phases, are provided in **Table 4.11-12**, below.

**Table 4.11-12. Noise from Equipment Proposed for Project Construction ( $L_{eq}$ )**

<b>Equipment Type</b>	<b>Noise at 25 Feet (<math>L_{eq}</math>)</b>
Air compressor	80
Auger drill rig	83
Concrete saw	89
Crane	79
Crushing/processing equipment	88
Excavator	83
Compactor	82
Dozer	84
Scraper	86
Vacuum street sweeper	78
Tractor	86
Gradall	85
Water truck	78
Concrete mixer truck	78
Concrete pump truck	80
Front-end loader	81
Pavement breaker/impact hammer	89
Tractor	86
Welder	76
Man lift	74

Noise levels are based on source noise levels from the FHWA Roadway Construction Noise Model

Source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: [https://www.fhwa.dot.gov/ENVIRONMENT/noise/construction\\_noise/rcnm/rcnm.pdf](https://www.fhwa.dot.gov/ENVIRONMENT/noise/construction_noise/rcnm/rcnm.pdf).

Accessed: October 18, 2020.

### **Daytime Construction**

As described under Section 4.11.3, *Regulatory Framework*, construction activities in South San Francisco that are authorized by a valid City permit are allowed on weekdays between the hours of 8:00 a.m. and 8:00 p.m., on Saturdays between the hours of 9:00 a.m. and 8:00 p.m., and on Sundays and holidays between the hours of 10:00 a.m. and 6:00 p.m. (or at such other hours as may be authorized by the permit) if they meet at least one of two noise limitations. Construction would be allowed during the daytime hours specified on the permit as long as noise from each individual piece of equipment is limited to 90 dB at a distance of 25 feet or as long as combined construction noise at any point outside the property plane of the project does not exceed 90 dB.

As shown in **Table 4.11-12**, noise from each individual piece of equipment proposed for project construction would not be expected to exceed 90 dBA  $L_{eq}$  at a distance of 25 feet. For this reason, construction that takes place during daytime hours defined by the South San Francisco Municipal Code would not conflict with City construction noise regulations.

Because the closest residences (along Tanforan Avenue) to the project site are in San Bruno, and because construction of some of the off-site improvements would occur in San Bruno, construction noise regulations for that jurisdiction are also considered in addition to those of South San

Francisco. For Phase 1, most construction activities would take place at least 55 feet away from the nearest residences along Tanforan Avenue. However, limited construction (e.g., approximately 15 to 30 days of work) would occur at the western terminus of Tanforan Avenue to create a turnaround cul-de-sac at the intersection of Tanforan Avenue and Huntington Avenue. In addition, some utility work would be conducted along Tanforan Avenue, requiring limited work within the street. This would include sewer upsizing, which would occur directly within Tanforan Avenue and involve the use of concrete saws and excavators, and undergrounding of certain PG&E utilities, which would require further coordination with the City of San Bruno and with occupants of nearby residences to connect each individual home to the undergrounded system.

Daytime construction noise in San Bruno within 500 feet of residential land uses is restricted to a noise level of 85 dBA  $L_{eq}$ , as measured at 100 feet (between the hours of 7:00 a.m. and 10:00 p.m.), unless a permit has been obtained to exceed that level. Additionally, City of San Bruno General Plan Policy HS-45 states that, where feasible and appropriate, noise reduction measures shall be developed and implemented when undertaking improvements, extensions, or design changes to San Bruno streets.

To provide a reasonable worst-case analysis of potential combined noise levels from project construction, this analysis assumes that the three loudest pieces of equipment proposed for a construction subphase of Phase 1 would also be the three loudest pieces of equipment that could be used during buildout of the project. The analysis also assumes that each piece of equipment would operate concurrently and in the same general location on the project site.

A screening analysis was conducted to determine during which phase the three loudest individual pieces equipment may operate concurrently. This screening analysis determined that abatement and demolition activities for Phase 1 construction, involving site preparation and implementation of the off-site improvements, would have the potential to produce the highest sound levels. These activities would involve potentially concurrent operation of a concrete saw, excavator, and a pavement breaker or hoe ram. **Table 4.11-13, p. 4.11-29**, identifies the combined noise levels from operation of these three pieces of construction equipment and the anticipated reasonable worst-case noise levels during construction at various distances from a given construction area.

As shown in **Table 4.11-13, p. 4.11-29**, reasonable worst-case combined construction noise (based on the assumptions described above) is expected to be approximately 81 dBA  $L_{eq}$  at a distance of 100 feet from the noise source. This level is below the City of San Bruno's construction noise standard of 85 dBA at a distance of 100 feet between the hours of 7:00 a.m. and 10:00 p.m. Because construction noise is expected to be below the applicable City of San Bruno limits during daytime hours, construction that takes place during daytime hours would not conflict with City of San Bruno daytime construction noise regulations.

Because daytime construction would comply with the local noise regulations contained in the South San Francisco and San Bruno Municipal Codes, daytime construction noise impacts under the project would be *less than significant*. No mitigation measures are required.

**Table 4.11-13. Combined Project Construction Noise Levels at Various Distances ( $L_{max}$  and  $L_{eq}$ )**

<b>Source Data:</b>		<b>Maximum Sound Level (dBA)</b>	<b>Utilization Factor</b>	<b><math>L_{eq}</math> Sound Level (dBA)</b>
<b>Construction Condition: Abatement and Demolition for the Grading, Roads, and Intersections</b>				
<b>Subphase</b>				
Source 1: Concrete saw – sound level (dBA) at 50 feet =		90	20%	83.0
Source 2: Excavator – sound level (dBA) at 50 feet =		81	40%	77.0
Source 3: Hoe Ram – sound level (dBA) at 50 feet =		90	20%	83.0
<b>Calculated Data:</b>				
All Sources Combined – $L_{max}$ sound level (dBA) at 50 feet =				93 $L_{max}$
All Sources Combined – $L_{eq}$ sound level (dBA) at 50 feet =				87 $L_{eq}$
<b>Distance Between Source and Receiver (feet)</b>	<b>Geometric Attenuation (dB)</b>	<b>Calculated <math>L_{max}</math> Sound Level (dBA)</b>	<b>Calculated <math>L_{eq}</math> Sound Level (dBA)</b>	
15	10	104	97	
25	6	100	93	
50	0	94	87	
80	-4	89	83	
<b>100</b>	<b>-6</b>	<b>88</b>	<b>81</b>	
150	-10	84	77	
200	-12	81	75	
250	-14	80	73	
300	-16	78	71	
350	-17	77	70	
400	-18	75	69	
500	-20	74	67	
600	-22	72	65	
700	-23	70	64	
800	-24	69	63	

Source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: [https://www.fhwa.dot.gov/ENVIRONMENT/noise/construction\\_noise/rcnm/rcnm.pdf](https://www.fhwa.dot.gov/ENVIRONMENT/noise/construction_noise/rcnm/rcnm.pdf). Accessed: October 18, 2020.

Notes:

1. Results at 100 feet are **bolded** because this is the distance at which the threshold for construction noise in San Bruno applies.
2. Geometric attenuation based on 6 dB per doubling of distance.
3. 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.

### ***Construction Outside Daytime Hours***

Most construction activities under the project are expected to occur during the City of South San Francisco's "daytime hours" of 8:00 a.m. to 8:00 p.m. weekdays, 9:00 a.m. to 8:00 p.m. Saturdays, and 10:00 a.m. to 6:00 p.m. Sundays. In San Bruno, construction activities would occur primarily during the City of San Bruno's "daytime hours" of 7:00 a.m. to 10:00 p.m. However, a limited amount of project construction could be necessary outside these daytime hours. For example, construction for Phase 1 may begin as early as 7:00 a.m. on a typical day, which is 1 hour before the start of "daytime hours" in South San Francisco. Activities that may occur during this hour would include workers arriving on-site, pre-task planning for the work for the day, setting up work areas and materials, trucks, and other vehicles arriving on-site (as long as backup alarms are not needed), and the use of hand power tools. Although noise-generating work would generally be limited during this time, in order to provide a conservative assessment, this analysis assumes that construction activities could begin prior to 8:00 a.m.

In addition to normal construction activity, it is anticipated that Phase 1 would require up to 18 concrete pours, which could begin as early as 5:00 a.m. Subsequent phases of project construction would be anticipated to also require nighttime concrete pours or construction activities to take place outside the daytime hours defined by the two jurisdictions.

The reasonable worst-case combined construction noise that could occur outside daytime hours must be estimated to determine potential construction noise impacts between 7:00 and 8:00 a.m. in South San Francisco. Outside the daytime hours specified by the City of South San Francisco, construction noise would be regulated by Section 8.32.030 of the South San Francisco Municipal Code (**Table 4.11-10, p. 4.11-15**), which establishes a maximum allowable level as determined by the land use category of the receiving property and measured on any receiving property. The nearest adjacent uses within South San Francisco are zoned MI (Mixed Industrial); BC (Business Commercial); and ECRMX (El Camino Real Mixed-Use). While the ECRMX designation allows residential uses, there are no existing residential uses located in the ECRMX-designated properties in the vicinity of the project site. However, an approved project (the 410 Noor Avenue project) is located approximately 700 feet from the project site, within the ECRMX zoning district, and could potentially be occupied during construction of the project. The applicable noise limit for construction noise to commercial uses during the hours of 7:00 a.m. to 10:00 p.m., per Section 8.32.030 of the South San Francisco Municipal Code, is 65 dBA  $L_{50}$ . The applicable noise limit for construction noise to multi-family residential uses during the hours of 7:00 a.m. to 10:00 p.m., per Section 8.32.030 of the South San Francisco Municipal Code, is 60 dBA  $L_{50}$ . Note that, for this analysis,  $L_{eq}$  is considered a reasonable proxy for assessing noise against the  $L_{50}$  standards.<sup>16</sup>

Although it is unlikely that the loudest activities proposed for construction would occur during the hours of 7:00 a.m. to 8:00 a.m., it is conservatively assumed that all construction activities proposed for Phase 1 could occasionally begin during this hour. Similarly, louder construction activities could occur during this hour (or potentially other non-daytime hours) for future development under the Specific Plan. Therefore, it is assumed that the daytime reasonable worst-case potential combined noise levels described previously for daytime construction could occur during this hour for project construction.

The abatement and demolition activities for the Phase 1 construction phase involving site preparation and implementation of the off-site improvements, which would have the potential to

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<sup>16</sup>  $L_{50}$  is the noise level standard for each land use for a cumulative period of more than 30 minutes in any hour.

produce the highest sound level, could result in the noise levels shown in **Table 4.11-13, p. 4.11-29**. These activities could involve concurrent operation of a concrete saw, excavator, and hoe ram. As shown in **Table 4.11-13, p. 4.11-29**, reasonable worst-case combined construction noise could be up to approximately 81 dBA  $L_{eq}$  at a distance of 100 feet from the noise source, the distance to the nearest commercial land use in South San Francisco. This noise level is in excess of the 65 dBA  $L_{50}$  criterion for commercial uses for construction noise occurring outside of “daytime hours” in South San Francisco. With regard to the nearest multi-family residential use in South San Francisco, reasonable worst-case combined construction noise could be up to approximately 64 dBA  $L_{eq}$  at a distance of 700 feet from the noise source (refer to **Table 4.11-13, p. 4.11-29**). This noise level is above the 60 dBA  $L_{50}$  criterion for multi-family residential uses which would apply during the hours of 7:00 a.m. to 8:00 a.m. in South San Francisco. Therefore, noise impacts from construction activities occurring between 7:00 a.m. and 8:00 a.m. in South San Francisco would be considered significant. Note that activities occurring between the hours of 7:00 and 8:00 a.m. would be in compliance with the City of San Bruno criterion of 85 dBA at 100 feet during this hour.

While the exact number of non-daytime concrete pours required for future development under the Specific Plan is not known at this time, there would be approximately 18 instances of non-daytime concrete pour activities during the Phase 1 construction window. Concrete pours could occur for Phase 1 starting at 5:00 a.m. and conclude at 8:00 p.m., and therefore could occur before and after the “daytime hours” outlined in the municipal code of either city. Phase 1 would not be expected to occur on back-to-back nights. Each Phase 1 structure would require six pours over a period of approximately six weeks, resulting in an average of one concrete pour per week. As previously noted, Phase 1 construction occurs closest to occupied residences along Tanforan Avenue. Since Phase 1 is the portion of the Specific Plan located closest to off-site sensitive uses, Phase 1 concrete pours would have the greatest potential noise effects to off-site uses for the entire Specific Plan development.

**Table 4.11-12, p. 4.11-27**, shows estimated noise levels for the three loudest pieces of construction equipment expected to operate concurrently during the non-daytime concrete pours (per the analysis approach detailed in Section 4.11.4.2, *Approach to Analysis*), which are a concrete mixer and two concrete pump trucks. As shown in **Table 4.11-14, p. 4.11-32**, noise levels from a concrete mixer and two concrete pump trucks are estimated to be approximately 77 dBA  $L_{eq}$  at a distance of 100 feet, which is the closest distance that Phase 1 concrete pour activities would occur to the residences in San Bruno, south of Tanforan Avenue. This exceeds the City of San Bruno’s 60 dBA criterion for nighttime noise generated 100 feet from construction activities.

Note that concrete pour locations for later phases of development are not known at this time. However, it is reasonably foreseeable that concrete pours would occur in the northern portion of the Specific Plan area; associated noise from that activity would be approximately 69 dBA  $L_{eq}$  at the nearby hotel in San Bruno (at a distance of at least 250 feet). Therefore, estimated nighttime noise levels would also exceed the City of San Bruno noise standard of 60 dBA at 100 feet for concrete pours that may occur in the northwestern portion of the Specific Plan. In addition, concrete pours may result in noise in excess of 60 dBA and 55 dBA at the nearest commercial and multi-family residential uses in South San Francisco, respectively, during the hours of 10:00 p.m. to 7:00 a.m. Estimated noise from concrete pour activity could be up to 60 dBA  $L_{eq}$  at the site of the proposed 410 Noor Avenue residences (at a distance of approximately 700 feet from the project site) and noise levels from the equipment at a distance of 50 feet, the approximate distance to the nearest commercial uses in South San Francisco, would be approximately 83 dBA  $L_{eq}$ .

**Table 4.11-14. Noise from Potential Nighttime Concrete Pours ( $L_{\max}$  and  $L_{\text{eq}}$ )**

Source Data:		Maximum Sound Level (dBA)	Utilization Factor	L <sub>eq</sub> Sound Level (dBA)
Construction Condition: Nighttime Concrete Pour				
Source 1: Concrete mixer truck – sound level (dBA) at 50 feet =		79	60%	76.8
Source 2: Concrete pump truck No. 1 – sound level (dBA) at 50 feet =		81	60%	78.8
Source 3: Concrete pump truck No. 2 – sound level (dBA) at 50 feet =		81	60%	78.8
Calculated Data:				
All Sources Combined – L <sub>max</sub> sound level (dBA) at 50 feet =				85 L <sub>max</sub>
All Sources Combined – L <sub>eq</sub> sound level (dBA) at 50 feet =				83 L <sub>eq</sub>
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L <sub>max</sub> Sound Level (dBA)	Calculated L <sub>eq</sub> Sound Level (dBA)	
50	0	85	83	
100	-6	79	77	
200	-12	73	71	
250	-14	71	69	
300	-16	70	67	
400	-18	67	65	
500	-20	65	63	
600	-22	64	61	
700	-23	62	60	
Notes:				
<ul style="list-style-type: none"><li>Geometric attenuation based on 6 dB per doubling of distance.</li><li>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.</li></ul>				

Because construction noise may occur from project construction during the non-daytime hours of 5:00 a.m. to 7:00 a.m. and during the daytime, but non-standard, hour of 7:00 a.m. to 8:00 a.m., noise from concrete pours and other noise-generating construction activities may be in excess of the applicable criteria for both the cities of South San Francisco and San Bruno, and impacts would be considered significant.

**Mitigation Measure NOI-1a**, which includes measures to reduce noise from construction activity during all hours, including non-daytime hours, would be implemented to reduce the project's significant impact related to non-daytime construction noise. While this mitigation measure would reduce construction noise effects, it may not be possible to reduce noise levels during all non-daytime construction activities to less-than-significant levels. For example, locating equipment as far as possible from noise-sensitive uses and equipping equipment with mufflers and sound control devices would reduce noise, but may not reduce noise to below significance criteria. **Mitigation**

**Measure NOI-1b**, which includes the installation of a temporary construction noise barrier along the complete length of Tanforan Avenue for the majority of the construction period, would reduce construction noise effects to the nearby residences. However, in order for temporary noise barriers to be effective, they must block the full line-of-sight between the noise source and the receiver, which may not be feasible in all locations for all construction activities taking place before 8:00 a.m. due to the proximity between the source and the receiver. For example, the noise barrier would need to be removed during construction of sidewalk improvements and utility installation. In addition, installing a temporary construction noise barrier may not reduce noise from all activities to below significance criteria at the nearest receptors, even if noise is somewhat reduced. Therefore, even with the implementation of all feasible mitigation measures, this impact would be ***significant and unavoidable***.

**Mitigation Measure NOI-1a: Construction Noise Control Plan to Reduce Noise Outside Standard Construction Hours in the City of South San Francisco (All Phases)**

The Phase 1 applicant and applicants of future Precise Plans and/or the contractor(s) for Phase 1 and future Precise Plans shall obtain a permit to complete work outside the standard construction hours outlined in the South San Francisco and/or San Bruno Municipal Code for work within each respective jurisdiction. In addition, the applicant and/or contractor(s) shall develop a construction noise control plan to reduce noise levels and comply with municipal daytime and nighttime noise standards. Specifically, for noise generated in or experienced by receptors in South San Francisco, the plan shall demonstrate that noise from construction activities that occur daily between 7:00 and 8:00 a.m. weekdays and on Saturday will comply with the applicable City of South San Francisco noise limit of 65 dBA at the nearest existing commercial land use and 60 dBA at the nearest multi-family residential land use, and construction activities that occur between 10:00 p.m. and 7:00 a.m. will comply with the applicable City noise limit of 60 dBA at the nearest existing commercial land use and 55 dBA at the nearest multi-family residential land use. In addition, the plan shall demonstrate that noise generated in or experienced by receptors in San Bruno from construction activities that occur between the hours of 10:00 p.m. and 7:00 a.m. shall not exceed a noise level of 60 dBA, as measured at 100 feet. Measures to help reduce noise from construction activity during non-standard construction hours to these levels shall be incorporated into this plan and may include, but are not limited to, the following:

- Plan for the noisiest construction activities to occur during daytime hours in both jurisdictions when the quantitative standards are less stringent and when people are less sensitive to noise.
- Require all construction equipment be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) that are in good condition (at least as effective as those originally provided by the manufacturer) and appropriate for the equipment.
- Maintain all construction equipment to minimize noise emissions.
- Locate construction equipment as far as feasible from adjacent or nearby noise-sensitive receptors.
- Require all stationary equipment be located to maintain the greatest possible distance to the nearby existing buildings, where feasible.
- 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.

- Install noise-reducing sound walls or fencing (e.g. temporary fencing with sound blankets) around noise-generating equipment during nighttime/non-standard daytime hours.
- Prohibit the use of impact tools (e.g., jack hammers) during nighttime/non-standard daytime hours.
- Prohibit idling of inactive construction equipment for prolonged periods during nighttime/non-standard hours (i.e., more than 2 minutes).
- Provide advance notification in the form of mailings/deliveries of notices to surrounding land uses regarding the construction schedule, including the various types of activities that would be occurring throughout the duration of the construction period.
- Provide the name and telephone number of an on-site construction liaison through on-site signage and on the notices mailed/delivered to surrounding land uses. If construction noise is found to be intrusive to the community (i.e., if complaints are received), the construction liaison shall take reasonable efforts to investigate the source of the noise and require that reasonable measures be implemented to correct the problem.
- 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.

#### **Mitigation Measure NOI-1b: Construction of Temporary Noise Barrier along Tanforan Avenue (Phase 1 Only)**

The Phase 1 contractor(s) shall install a temporary noise barrier along the complete length of Tanforan Avenue that abuts project construction activities, located within the direct line-of-sight path between the noise source and nearby sensitive receptor(s), in advance of project construction. The barrier shall be constructed of material that has a surface weight of at least 1 pound per square foot and has an acoustical rating of at least 25 STC (Sound Transmission Class). This can include a temporary barrier constructed with plywood supported on a wood frame, sound curtains supported on a frame, or other comparable material.

#### ***Construction Haul Truck Noise***

As described previously, specific construction details for future development under the Specific Plan are not available at this time, including details about haul truck use and routes. However, information regarding the anticipated haul truck usage for Phase 1 has been provided by the Phase 1 applicant. Phase 1 construction would involve the most hauling of any Specific Plan construction phase. Therefore, because construction impact determinations are based on reasonable worst-case construction noise levels at the nearest sensitive uses, Phase 1 construction activities are the focus of the project construction noise analysis. During the most hauling intensive subphases of Phase 1 construction, up to 192 round-trip haul truck trips per day, or 384 one-way trips per day, would occur.

The municipal codes of San Bruno and South San Francisco do not include specific thresholds pertaining to construction haul truck noise. Therefore, anticipated daily haul truck noise was

assessed to determine if a 3 dB increase over ambient noise levels, considered to be “barely perceptible,” would occur.

The temporary addition of up to 192 round trip, or 384 one-way, haul trucks per day on the local roadway network to access the freeways in proximity to the project site is analyzed to determine if hauling activity would result in substantial increases to the ambient noise levels. As discussed in Chapter 2, *Project Description*, of this EIR, project trucks would primarily use the following haul routes: (1) to/from I-380 via El Camino Real, South Spruce Avenue, Victory Avenue and South Maple Avenue, and (2) to/from U.S. 101 via South Airport Boulevard, San Mateo Avenue, and South Linden Avenue. Although not planned for use, this analysis also looks at the potential for haul trucks to travel to/from I-280 via Huntington Avenue and Sneath Lane. The haul routes would be the same for Phase 1 and future development phases of the Specific Plan. Note that no residential uses are located along the haul route to/from U.S. 101 described above. Therefore, haul truck noise modeling conducted for this analysis assumed all haul trucks would use the other routes described above to ensure a conservative assessment of haul truck noise on segments closer to noise-sensitive receptors.

According to the Phase 1 applicant, approximately 80 percent of truck trips would utilize I-380 via El Camino Real, South Spruce Avenue, Victory Avenue and South Maple Avenue and approximately 20 percent of truck trips would utilize another identified haul route. This analysis conservatively assumes that 100 percent of haul trucks would use each modeled haul route.

Average daily traffic noise levels with and without the addition of Phase 1 haul truck trips (e.g., an “existing plus project haul truck” condition) were modeled. The analysis assumed a total of 384 one-way truck trips per day would travel along all analyzed haul routes. **Table 4.11-16**, below, shows estimated worst-case Specific Plan traffic noise levels along analyzed roadway segments under existing conditions and under “existing plus project haul truck” conditions based on the conservative assumptions described above (noting that Phase 1 is the most hauling-intensive phase of the Specific Plan).

**Table 4.11-15. Existing and Existing plus Haul Truck Noise Levels along Segments near Residential Uses**

Roadway	Segment	Existing Noise Level (dBA L <sub>dn</sub> )	Phase 1 Haul Truck Noise Only (dBA L <sub>dn</sub> )	Existing plus Phase 1 Haul Truck Noise Level (dBA L <sub>dn</sub> )	Phase 1 Haul Truck-Related Increase (dB)
El Camino Real	Between Sneath Lane and I-380 Ramps	65.9	54.5	66.2	0.3
El Camino Real	South of South Spruce Avenue	67.2	56.4	67.5	0.3
South Spruce Avenue	East of El Camino Real	64.6	56.9	65.3	0.7
Sneath Lane	Between Huntington Avenue and El Camino Real	59.5	55.2	60.9	1.4
Sneath Lane	Between I-280 and Cherry Avenue	61.1	54.1	61.9	0.8

Notes:

Only segments with sensitive (e.g., residential uses) were modeled.

Conservatively assumes all 384 daily haul trucks would use all routes

Estimated noise level from existing conditions and existing conditions with haul truck activity at a distance of 120 feet for all segments, because that is the closest distance between any roadway segment and residential/sensitive land uses (e.g., it is 120 feet to nearest residences from roadway centerline of Sneath Lane, west of Cherry Avenue).

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As shown in **Table 4.11-16, p. 4.11-38**, increases in traffic noise from haul truck activity along routes with sensitive uses would be in the range of 0.3 to 1.4 dB for Phase 1 assuming all haul trucks would use all analyzed routes. Therefore, a less than a 3 dB increase in traffic noise levels would occur along all analyzed routes. Note that a change of 3 dB is considered barely noticeable. During most subphases of Phase 1 and overall Specific Plan construction, there would be fewer daily haul truck trips than presented in this analysis. In addition, it is unlikely that 100 percent of haul trucks would use any single route. Therefore, this analysis represents a reasonable worst-case condition for haul truck noise effects.

Potential temporary noise increases from haul trucks along the project haul route near residences would result in a less-than-significant impact related to a substantial temporary increase in noise during Specific Plan construction. Therefore, temporary noise impacts related to project haul truck use would be ***less than significant***. No mitigation measures are required.

## Phase 1

### ***Daytime Construction***

As previously stated, estimated daytime construction noise from Phase 1 is analyzed above under the project analysis because Phase 1 includes the closest daytime construction activities to off-site noise-sensitive land uses. Therefore, for the reasons stated above in the project analysis, daytime construction noise impacts for the Phase 1 development would be ***less than significant***.

### ***Construction Outside Daytime Hours***

As previously stated, estimated non-daytime construction noise from Phase 1 is analyzed above under the project analysis because Phase 1 includes the closest non-daytime construction activities to off-site noise-sensitive land uses. Implementation of **Mitigation Measure NOI-1a**, described previously, which includes measures to reduce noise from construction activity during non-standard construction hours, would be implemented to reduce this potentially significant impact related to construction noise outside daytime hours to a less-than-significant level to the extent feasible. In addition, **Mitigation Measure NOI-1b** requires the construction of a temporary noise barrier along the southern perimeter of the project site, which would reduce noise effects to residences south of Tanforan Avenue.

However, for the reasons stated above in the project analysis, even with implementation of **Mitigation Measure NOI-1a** and **Mitigation Measure NOI-1b**, which would be required for Phase 1, this impact would be ***significant and unavoidable***.

### ***Construction Haul Truck Noise***

As previously stated, estimated construction haul truck noise from Phase 1 is analyzed above under the project analysis because Phase 1 would be the most hauling-intensive phase of construction. Therefore, for the reasons stated above in the project analysis, construction haul truck noise impacts for Phase 1 would be ***less than significant***.

**Impact NOI-1b: Project operation 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 the local general plan or noise ordinance or applicable standards of other agencies. (Project: *Less than Significant with Mitigation*; Phase 1: *Less than Significant with Mitigation*)**

### **Project**

The project would introduce new operational noise sources. Typical operational noise sources evaluated below include project-generated traffic; heating, cooling and ventilation equipment; emergency generator testing; loading dock activity; vehicle activity in Parking Structure C (noise from subterranean parking garages located in other areas of the Specific Plan would not result in meaningful noise increases above ground); and human activity in outdoor gathering areas. Noise from landscape maintenance is not evaluated since landscape maintenance activities are allowed during daytime hours without specific numeric noise restrictions in the City of South San Francisco, and the project does not propose landscaping activities outside of daytime hours.

### **Traffic**

As discussed in Section 4.15, *Transportation and Circulation*, of this EIR, implementation of the proposed project would lead to an increase in traffic in the vicinity of the project site, distributed broadly across the existing circulation network as modified and expanded by the project. Quantitative modeling of traffic noise increases resulting from project implementation was conducted using a spreadsheet that was based on the FHWA Traffic Noise Model, version 2.5.

The results of this analysis are presented in **Table 4.11-17, p. 4.11-40**, which shows that the project-related noise changes on roadway segments in the project site vicinity would range from +0.2 to +3.0 dB, with the exception of Tanforan Avenue between Huntington Avenue and Dollar Avenue, which would experience a decrease of -4.5 dB due to the reconfiguration of Tanforan Avenue to a cul-de-sac resulting in reduced through-traffic in that location. Note that the applicable land use noise compatibility standard was used for each roadway segment, based on the jurisdiction in which it is located (i.e., South San Francisco or San Bruno). As shown in Table 4.11-17, project-related traffic noise would not result in a 5 dB or greater increase in areas where future noise levels are within the normally acceptable range for the types of land uses present and would not result in a 3 dB or greater increase in areas where future noise levels are above the normally acceptable range for the types of land uses present. Project-related traffic noise impacts would be ***less than significant***.

**Table 4.11-16. Modeled Traffic Noise Impacts on Existing Land Uses**

Roadway	Segment	2040 Without Project (dB L <sub>dn</sub> )	2040 With Project (dB L <sub>dn</sub> )	Project- Related Increase (dB)	Most Sensitive Adjacent Land Use Type	City in Which Segment Is Located	Applicable Compatibility Standard	Exceeds Compatibility Standard?	Allowable Increase	Exceeds Allowable Increase?
Sneath Lane	Between I-280 and Cherry Avenue	67.3	67.7	0.4	MFR	SB	65	Yes	3	No
Sneath Lane	Between Cherry Avenue and El Camino Real	70.0	70.7	0.7	C/O/I	SB	70	Yes	3	No
El Camino Real	Between Sneath Lane and I-380	71.9	72.2	0.3	C/O/I	SB	70	Yes	3	No
El Camino Real	Between I-380 on-/off-ramps	72.3	72.6	0.3	NA	SB	NA	NA	NA	NA
Sneath Lane	Between El Camino Real and Huntington Avenue	65.4	67.1	1.7	C/O/I	SB	70	No	5	No
Huntington Avenue	Between San Bruno Ave and Forest Lane	64.7	65.1	0.5	SFR	SB	60	Yes	3	No
Huntington Avenue	Between Forest Lane/ Herman Street and Sneath Lane	64.4	64.8	0.4	SFR	SB	60	Yes	3	No
Tanforan Avenue	Huntington Avenue and Dollar Avenue	59.8	55.4	-4.5	SFR	SB	60	No	5	No
Dollar Avenue/ Herman Street	Between Tanforan Avenue and Scott Street	62.1	62.3	0.2	SFR	SB	60	Yes	3	No
San Mateo Avenue	Between South Linden and South Airport Boulevard	67.9	68.7	0.8	C/O/I	SSF	70	No	5	No
South Linden Avenue	Between Grand Avenue and San Mateo Avenue	67.6	69.1	1.5	SFR	SSF	65	Yes	3	No
South Linden Avenue	Between Dollar Avenue and San Mateo Avenue	61.8	64.7	2.9	C/O/I	SSF	70	No	5	No
South Maple Avenue	Tanforan Avenue and Victory Avenue	61.7	64.6	3.0	C/O/I	BOTH	70	No	5	No

Source: Traffic volumes provided by Fehr & Peers. Modeling conducted using a spreadsheet that was based on the FHWA Traffic Noise Model, version 2.5, at a fixed distance of 33 feet from the roadway centerline.

NA: Not applicable because the area between the I-380 ramps is undeveloped.

### ***Heating, Cooling, and Ventilation Equipment***

The heating, cooling, and ventilation equipment for future phases under the Specific Plan (not including Phase 1) have not been selected at this time. In general, air handling units and standard heating and cooling package units can produce sound levels in the range of about 70 to 75 dBA at 50 feet, depending on the size of the unit.<sup>17</sup> With regard to cooling towers, a typical 100-horsepower propeller-driven cooling tower generates a noise level of approximately 74 dBA at 50 feet. Depending on cooling capacity, a chiller generates a sound power level of 97 to 103 dBA, which equates to a noise level of 65 to 71 dBA at 50 feet.<sup>18</sup> A typical boiler generates a sound power level in the range of 96 to 99 dBA,<sup>19</sup> which equates to a noise level of 64 to 67 dBA at 50 feet. Pumps generate noise levels at 50 feet of approximately 81 dBA, and exhaust/ventilation fans generate noise levels at 50 feet of approximately 79 dBA.<sup>20</sup>

Although the heating and cooling equipment for future phase development has not been selected at this time, general details about the heating and cooling equipment for Phase 1 are known. Because the Phase 1 site is the portion of the Specific Plan area closest to residential or sensitive land uses, and because overall noise levels are typically dominated by the loudest and closest sources (noting that noise from heating and cooling equipment on further away buildings would be attenuated by shielding from intervening buildings), this analysis focuses on potential noise effects from the Phase 1 heating and cooling systems.

Phase 1 heating and cooling equipment would include one chilled water plant per building, which would be located in a rooftop penthouse. The plant would consist of centrifugal chillers and pumps. Boilers would also be included in the heating and cooling system and located within an interior plant room. Cooling towers, along with fan array-style air handling units with supply and return fans, would be located outside the chiller plant within architectural screened enclosures. For Phase 1, this equipment would specifically be shielded on the roof by walls that would be at least as high as the equipment. Note that no heating, cooling, or similar equipment will be installed within the off-site improvement areas constructed during Phase 1 or later phases.

To not exceed applicable thresholds in San Bruno, mechanical equipment must not result in noise levels of 10 dB above ambient at the nearest property plane of a sensitive use. The ambient noise level along Tanforan Avenue can conservatively be estimated, based on traffic noise modeling results for this segment. This provides a conservative estimate of ambient noise because it would account for only traffic noise along this segment and would not include traffic noise generated by nearby roadways or other noise sources, such as aircraft overflights. Utilizing a lower ambient base level allows for a smaller increase in ambient noise attributable to the project (e.g., offers a conservative assessment). The existing 24-hour  $L_{dn}$  noise level along Tanforan Avenue was estimated to be 58.6 dBA  $L_{dn}$ , based on traffic alone. The 1-hour average peak-hour  $L_{eq}$  was estimated to be 58.2 dBA  $L_{eq}$ , based on peak-hour vehicle trips along this segment.

The nearest off-site sensitive land uses to the project site are the residences along Tanforan Avenue south of the project site. The nearest project buildings would be, at a minimum, approximately

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<sup>17</sup> Hoover and Keith. 2000. *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*. Houston, TX.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Federal Highway Administration. 2006. *Roadway Construction Noise Model User Guide*.

100 feet from these residences. Without accounting for building height, and assuming rooftop equipment could be approximately 100 feet from residential receptors, combined noise levels from the proposed heating and cooling equipment were estimated.

Although exact numbers, makes, models, and sizes for the proposed mechanical heating, cooling, and ventilation equipment are not known at this time, an example case of reasonably foreseeable combined noise levels was modeled, based on the types of equipment proposed for Phase 1 of the project. Note that the Phase 1 portion of the Specific Plan area is the closest portion of the project site to off-site sensitive uses, so the reasonable worst-case analysis of HVAC noise focuses on equipment located on Phase 1 buildings. Combined noise levels from two boilers, two chillers, and two pumps in a mechanical equipment room; two cooling towers and two air handling units located behind solid screens; and two exhaust fans not located in an equipment room or behind screens were estimated. Because the exact locations of equipment on the rooftop are not known, this analysis conservatively assumes that all pieces of equipment would be located relatively close to one another in order to estimate reasonably conservative combined noise levels. The estimated combined noise level, which takes into consideration a standard 10-dB reduction for equipment located in the plant room and a 5-dB reduction for equipment located behind solid screens, was approximately 83.5 dBA  $L_{eq}$  at a standard distance of 50 feet. At a distance of 100 feet, the distance to the nearest residential receptors south of the project site, and without accounting for the height difference between the rooftop equipment and the nearest residences, noise would be approximately 6 dB lower, or 77.5 dBA. Refer to **Table 4.11-18** for the estimated noise levels of the heating, cooling, and ventilation equipment to be utilized for each Phase 1 building.

**Table 4.11-17. Estimated Heating, Cooling, and Ventilation Equipment Noise**

Type of Equipment	dBA $L_{eq}$ Noise at 50 Feet (assuming 100% utilization)	Located in a Room, Behind a Screen, or Open Air?	Attenuation Based on Equipment Location (dB)	Attenuated Noise by Equipment Type (dBA)	Source for Estimated Equipment Noise
Boiler	67	Room	10	57	H&K
Boiler	67	Room	10	57	H&K
Chiller	71	Room	10	61	H&K
Chiller	71	Room	10	61	H&K
Pump	81	Room	10	71	FHWA
Pump	81	Room	10	71	FHWA
Cooling tower	74	Screen	5	69	H&K
Cooling tower	74	Screen	5	69	H&K
Heating/ cooling	75	Screen	5	70	H&K
Heating/ cooling	75	Screen	5	70	H&K
Exhaust fan	79	NA	0	79	FHWA
Exhaust fan	79	NA	0	79	FHWA
<b>Combined Equipment Noise at 50 feet</b>				<b>83.5</b>	
<b>Combined Equipment Noise at 100 feet</b>				<b>77.5</b>	
<b>Combined Equipment Noise at 700 feet</b>				<b>60.6</b>	
Source: Hoover and Keith, 2000; FHWA 2006.					

As previously stated, the focus of the analysis is on the buildings located closest to off-site residences (e.g., Phase 1 buildings) to ensure the estimated noise levels presented in this assessment are reasonably conservative. Noise levels from project equipment located on buildings further away from the nearest sensitive receptors would be lower due to distance and shielding.

Based on the estimated ambient noise levels in the vicinity of the project site, with a peak-hour  $L_{eq}$  noise level of approximately 58.2 dBA  $L_{eq}$ , noise from heating and cooling equipment may result in a 10 dB or greater increase in ambient noise levels. Therefore, noise from heating, cooling, and ventilation equipment for development under the Specific Plan, including Phase 1, which would be the closest portion of the project site to residences in San Bruno, would be expected to exceed City of San Bruno Noise Ordinance limits for mechanical equipment. Thus, impacts from heating, cooling, and ventilation equipment would be considered significant in San Bruno.

In addition to the residential uses located south of the project site in San Bruno, noise generated at the property planes for commercial and office uses located near the project site within the city of South San Francisco are governed by municipal code noise thresholds of 65 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m. and 60 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m. for these types of operational noise sources. Noise generated at the property planes for multi-family residential land uses within the City of South San Francisco (e.g., the approved 410 Noor Avenue Project) are governed by municipal code noise thresholds of 60 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m. and 55 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m. for these types of operational noise sources. The nearest off-site commercial uses to project buildings are the commercial and office buildings near the southeast corner of the project site, a distance of approximately 40 feet from the nearest Phase 1 building. Based on the reasonably foreseeable example scenario of estimated noise levels for proposed heating, cooling, and ventilation equipment provided above, rooftop mechanical equipment noise would be approximately 85.4 dBA  $L_{eq}$  at the buildings. Therefore, noise from heating, cooling, and ventilation equipment at the Specific Plan area at Specific Plan buildout may exceed the daytime and nighttime thresholds outlined in the South San Francisco Municipal Code at nearby buildings within South San Francisco. In addition, at a distance of 700 feet (the distance to the 410 Noor Avenue project site), noise from this equipment could be up to 60.6 dBA, without accounting for shielding. Note that the 410 Noor Avenue project included a condition of approval (COA) requiring measures (e.g. windows and exterior doors with certain STC ratings, the provision of mechanical ventilation, etc.) such that interior noise would be within allowable levels. However, the City of South San Francisco threshold is a property plane threshold as opposed to an interior noise standard, so potential effects to this use are still considered. Because unshielded noise from this equipment could exceed the 55 dBA nighttime criteria and the 60 dBA daytime criteria, noise impacts from mechanical equipment to the multi-family uses in South San Francisco (e.g., 410 Noor Avenue) may also be significant. As is the case for mechanical equipment noise impacts in San Bruno, impacts from mechanical equipment noise in South San Francisco would also be considered significant.

Implementation of **Mitigation Measure NOI-1c** would reduce this potentially significant impact related to heating, cooling, and ventilation equipment noise to a less-than-significant level in both San Bruno and South San Francisco by ensuring that project mechanical equipment would not result in noise levels that would be in excess of the applicable criteria. This impact would be ***less than significant with mitigation***.

**Mitigation Measure NOI-1c: Mechanical Equipment Noise Reduction Plan (All Phases)**

To reduce potential noise impacts resulting from project heating, cooling, and ventilation equipment, the Phase 1 applicant and applicants of future Precise Plans shall conduct a noise analysis to estimate noise levels of project-specific mechanical equipment based on the selected equipment models and design features, and create a Noise Reduction Plan to ensure noise levels of equipment, once installed, are below the applicable criteria described below. The Noise Reduction Plan shall include any necessary noise reduction measures required to reduce project-specific mechanical equipment noise to a less-than-significant level. The plan shall also demonstrate that with the inclusion of selected measures, noise from equipment would be below the significance thresholds. Feasible noise reduction measures to reduce noise below the significance threshold include, but are not limited to, selecting quieter equipment, utilizing silencers and acoustical equipment at vent openings, siting equipment farther from the roofline, and/or enclosing all equipment in a mechanical equipment room designed to reduce noise. This analysis shall be conducted and the results and final Noise Reduction Plan shall be provided to the City prior to the issuance of building permits for each phase.

The noise analysis and Noise Reduction Plan shall be prepared by persons qualified in acoustical analysis and/or engineering. The Noise Reduction Plan shall demonstrate with reasonable certainty that noise from mechanical equipment selected for the project, including the attenuation features incorporated into the project design, will not exceed the City of South San Francisco property plane threshold of 60 dBA during daytime hours or 55 dBA during nighttime hours for nearby multi-family residential uses, 65 dBA during daytime hours or 60 dBA during nighttime hours for nearby commercial uses, or the City of San Bruno threshold of 10 dB above the ambient noise level at the property plane.

The Phase 1 applicant and applicants of future Precise Plans shall incorporate all feasible methods to reduce noise identified above and any other feasible recommendations from the acoustical analysis and Noise Reduction Plan into the building design and operations as necessary to ensure that noise sources meet applicable requirements of the respective noise ordinances at receiving properties.

***Emergency Generator Testing***

With regard to emergency generators, emergency generators included in the project could result in the generation of audible noise during testing. Noise from the operation of emergency generators during an emergency is typically exempt from local ordinances. However, even though the testing of emergency generators is typically a short-term (i.e., less than 1 hour) and intermittent process (usually once or twice per month), noise resulting from generator testing must comply with local noise limits for operational and equipment noise. Testing is typically conducted on a monthly or biweekly basis for periods of 15 to 30 minutes, depending on the project. For Phase 1, generators would be tested one per month for an estimated 30 minutes. It is assumed that generator testing for the Specific Plan would similarly occur once per month for an estimated 30 minutes.

Noise from emergency generator testing would be subject to the requirements of the cities of South San Francisco and San Bruno regarding mechanical equipment. Should emergency generator testing result in noise levels that are 10 dB or greater than ambient noise levels, impacts in San Bruno would be considered significant. Should emergency generator testing result in noise levels greater than the allowable levels described in Section 8.32.030 of the City of South San Francisco Noise

Ordinance, impacts in South San Francisco would be considered significant. In South San Francisco, the maximum allowable level for land uses near the project site is 65 dBA for commercial uses and 70 dBA for light industrial uses. Noise generated during nighttime hours (defined as 10:00 p.m. to 7:00 a.m.) is limited to 60 dBA for commercial uses and 70 dBA for light industrial uses.

Specific details regarding the emergency generators proposed for future development under the Specific Plan, other than Phase 1, are not known at this time. However, it is likely that future generators would be similar to those proposed as part of Phase 1. Phase 1 would include up to five emergency generators (one or two per building), with three installed as a part of the project and up to two installed for tenant use, depending on the tenants of the Phase 1 buildings. Specifically, Phase 1 would include two 1,250 kW Cummins generators (one for Building 1 and one for Building 7) and one 500 kW Cummins generator (for Building 2), with the potential for two additional 1,250 kW generators to be installed (one each in Buildings 1 and 7), based on the Phase 1 tenants.

The Cummins 1,250 kW generator model (DQGAE) that may be installed under Phase 1 generates an estimated unattenuated noise level of up to 103 dBA at 50 feet (combined exhaust and engine noise), without accounting for attenuation from mufflers or weather and/or sound enclosures.<sup>21</sup> The 500 kW generator model (QXS15 series) that may be installed under Phase 1 generates an estimated unattenuated noise level of up to 89 dBA at 7 meters, which equates to approximately 82 dB at 50 feet without accounting for attenuation from mufflers or weather and/or sound enclosures.<sup>22</sup>

For Phase 1, generators are proposed to be installed inside sound enclosures. As an example, the QuietSite Level 2 sound enclosure would reduce 500 kW generator noise from 89 dBA at 7 meters to 73 dBA at the same distance.<sup>23</sup> Therefore, actual sound levels during emergency testing may be lower than the generator noise levels cited above. In addition, some additional noise attenuation could be achieved through the inclusion of exhaust mufflers or shielding. According to the Specific Plan design guidelines, all emergency generators would be required to be shielded. However, specific details about generator shielding and attenuation features for future generators under the future phases of the Specific Plan are not known at this time. To result in meaningful attenuation from shielding, all walls or screens must be solid with no holes or gaps. Attenuation also varies based on the type of material used for the walls or screens. At this time, and since the type and sound rating of future shielding is unknown, this analysis is conservatively based on unattenuated noise levels.

The nearest sensitive uses in San Bruno to the Specific Plan area are located at least 100 feet from any proposed buildings, south of the project site. The equipment yard for the proposed 500 kW Building 2 generator is approximately 100 feet from the nearest residence. However, most of the generators for Phase 1 would not be located this close to the residences along Tanforan Avenue. The generator yard for Building 1 would be located at the northwest corner of the building, more than 330 feet north of the nearest residence along Tanforan Avenue. The generator yard for Building 7 would be located near the southeast corner of the building, more than 370 feet from the nearest residence along Tanforan Avenue.

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<sup>21</sup> Cummins, Inc. 2017. *Cummins Power Generation*, Sound Data, 1,250 DQGAE. August. Available: <https://powersuite.cummins.com/en>. Accessed: October 2, 2020.

<sup>22</sup> Cummins, Inc. 2015. *Cummins Power Generation, Diesel Generator Set, QXS15 Series Engine, 450 kW–500 kW, Standby*.

<sup>23</sup> Ibid.

At a distance of 100 feet, noise from the testing of the 500 kW Building 2 emergency generator would be in the range of 76 dBA without accounting for attenuation. At a distance of 330 feet, noise from testing of the 1,250 kW Building 1 generator would be approximately 87 dBA. At a distance of 370 feet, noise from testing of the 1,250 kW Building 7 generator would be in the range of 86 dBA. Because the estimated ambient noise level, based on traffic noise modeling, along Tanforan Avenue during the average peak hour would be approximately 58 dBA  $L_{eq}$ , with off-peak hours most likely lower, noise from generator testing in the range of 76 to 87 dBA could temporarily increase ambient noise levels in the project vicinity by more than 10 dB. Generators for other phases of the project would be farther from residences but still may increase ambient noise levels in the project vicinity along Tanforan Avenue by more than 10 dB. Therefore, at Specific Plan buildout, noise impacts from generator testing would be potentially significant under San Bruno regulations.

In addition to the noise ordinance limits in San Bruno, noise from generator testing must comply with the City of South San Francisco Noise Ordinance limits for operational noise sources. The most sensitive nearby buildings to the project site in South San Francisco are zoned as commercial uses. During daytime hours, noise at this type of use from operational sources would be limited to 65 dBA. During nighttime hours, noise would be limited to 60 dBA. The nearest residential land use in South San Francisco is the approved 410 Noor Avenue project (located approximately 700 feet from the project site), which would include multi-family residential units. During daytime hours, noise at this type of use from operational sources would be limited to 60 dBA. During nighttime hours, noise would be limited to 55 dBA.

The nearest off-site use in South San Francisco to the Phase 1 site is a commercial office building located east of the Specific Plan area, though other off-site buildings are located relatively near proposed development areas for the rest of the Specific Plan area. The building located near the southeast corner of the Phase 1 site is located an estimated 130 feet from the proposed generator yard for Building 7. This generator yard is expected to house one or two generators up to 1,250 kW. At a distance of 130 feet, noise from the testing of a single generator would be in the range of 95 dBA, without accounting for attenuation from mufflers, shielding, or generator housings that may be installed. In addition, should a generator be sited near the northwest corner of the project site, it could be as close as 700 feet from the multi-family residential uses planned at the 410 Noor Avenue project. At a distance of 700 feet, generator noise from a 1,250-kW generator could be in the range of approximately 80 dBA, based on the assumptions described above. Although it is proposed that all Phase 1 generators would be located in weatherproof acoustic enclosures (and future project generators would likely also include such design features), potential mufflers have not been selected, and the precise attenuation that could be attributed to these enclosures is not known at this time. Therefore, while actual sound levels during emergency testing may be lower than the generator noise levels cited here, for the purpose of this analysis, noise from emergency generator testing (i.e., in the range of up to 95 dBA at the nearest building to the Phase 1 site, or in the range of 80 dBA at the nearest residential use in South San Francisco) is assumed to be potentially significant in South San Francisco.

Therefore, even though the testing of emergency generators would be short in duration (i.e., 30 minutes per occurrence) and intermittent (i.e., approximately once per month), noise from the testing of emergency generators under the project would be considered potentially significant in both San Bruno and South San Francisco.

Implementation of **Mitigation Measure NOI-1d** would reduce this potentially significant impact related to emergency generator testing noise to a less-than-significant level in both San Bruno and

South San Francisco and ensure that emergency generator testing noise would not result in noise levels in excess of the applicable criteria by requiring preparation of an emergency noise generation study. This impact would be ***less than significant with mitigation***.

#### **Mitigation Measure NOI-1d: Emergency Generator Noise Reduction Plan (All Phases)**

Prior to approval of a building permit for any proposed development under the Specific Plan, including Phase 1, the Phase 1 applicant and applicants of future Precise Plans shall conduct a noise analysis to estimate noise levels from the testing of project-specific emergency generators, and create a Noise Reduction Plan to ensure noise levels of generator testing are below the applicable criteria. This analysis and Noise Reduction Plan may be incorporated together with the analysis described in MM-NOI-1c. This analysis shall be conducted and the Noise Reduction Plan shall be created based on the analysis results. The results, methods, and final Noise Reduction Plan shall be provided to the City prior to the issuance of building permits for each phase. The analysis shall account for proposed noise attenuation features, such as specific acoustical enclosures and mufflers or silencers, and the final Noise Reduction Plan shall demonstrate with reasonable certainty that proposed generator(s) will not exceed the City of South San Francisco property plane threshold of 60 dBA for residential uses and 65 dBA for commercial uses during daytime hours, or 55 dBA for residential uses and 60 dBA for commercial uses during nighttime hours, and the City of San Bruno threshold of 10 dB above the ambient noise level. Acoustical treatments may include, but are not limited to:

- Enclosing generator(s);
- Installing relatively quiet model generator(s);
- Orienting or shielding generator(s) to protect noise-sensitive receptors to the greatest extent feasible;
- Installing exhaust mufflers or silencers;
- Increasing the distance between generator(s) and noise-sensitive receptors; and/or
- Placing barriers around generator(s) to facilitate the attenuation of noise.

In addition, all project generator(s) shall be tested only between the hours of 7:00 a.m. and 8:00 p.m.

The Phase 1 applicant and applicants of future Precise Plans shall incorporate all recommendations from the acoustical analysis into the building design and operations to ensure that noise sources meet applicable requirements of the noise ordinance.

#### ***Loading Dock Activity***

The analysis of loading dock noise during project operations is based on the expected number of daily loading activities at loading docks near residential uses and the potential for loading activity noise to result in substantial noise increases in the vicinity of sensitive receptors. Although the amount of loading activity expected to occur under the future Specific Plan phases is not known at this time, general assumptions about the amount of loading expected at Phase 1 can be made, based on Phase 1 daily trip generation information and the expected vehicle mix (e.g., percentage of heavy trucks vs. personal vehicles). The Phase 1 loading docks are much closer to nearby residential land uses than the loading docks for later phases of Specific Plan development, with all loading docks for other Specific Plan buildings located north of the future Southline Avenue. The nearest sensitive

receptor to the Building 1 loading dock (a residence to the south along Tanforan Avenue), is located more than 250 feet from the loading dock, and the nearest sensitive receptor to the Building 7 loading dock (another residence to the south along Tanforan Avenue) is more than 370 feet south of that loading dock. Residences would be located further from other Specific Plan loading docks than these distances. Therefore, noise from Phase 1 loading docks would have a greater potential to affect nearby sensitive uses than loading docks for any other phase of Specific Plan development. Noise at these loading docks is analyzed to provide a reasonable worst-case analysis of Specific Plan loading noise.

Based on trip generation and vehicle mix data, it is assumed that up to 12 heavy trucks per day would utilize the Phase 1 loading bays for loading/unloading activities on a given day during project operations. It is then assumed that one-third of these 12 trips would access the loading bays for each building. Because the loading dock for Building 1 would also serve Building 2, there would be an estimated eight heavy-truck loading/unloading activities per day at the loading dock for Building 1 and four heavy-truck loading/unloading activities per day at the loading dock for Building 7. Although medium-size trucks (FedEx, UPS, USPS, and other local carriers) may also access the site, the delivery of packages does not generally involve long-term or highly noisy unloading activities. In addition, at the project site, these types of trucks would use curb-side or temporary loading areas during business hours, with short-duration stops.

As stated above, the nearest sensitive receptor to the Building 1 loading dock is located more than 250 feet from the loading dock, and the nearest sensitive receptor to the Building 7 loading dock is more than 370 feet south of that loading dock. An existing building is located between the loading dock for Building 7 and the nearest residences; therefore, noise attenuation would result from this shielding. In addition, intervening project buildings between most residences and the Building 1 loading dock would shield most residences from loading noise generated at this dock. Although there may be a direct line of sight between some nearby residences and some loading dock areas, the temporary loading and unloading activities at the Phase 1 buildings (up to 12 heavy trucks per day) would typically be short term and intermittent throughout the day, occurring only during daytime hours when people are less sensitive to noise. In addition, loading and unloading activities already occur at the existing office and commercial uses on the site; therefore, project implementation would not result in a large-scale increase in this activity at the site. For these reasons, temporary and short-term increases in noise from project loading activity would not be considered substantial. Impacts related to loading dock noise from the Specific Plan, noting that Phase 1 loading docks would be closest to sensitive uses, would be *less than significant*. No mitigation measures are required.

### ***Parking Garage Activity***

Parking Structure C, which would be partially constructed during Phase 1 and fully constructed during future project phases, would be located in the northeast portion of the Specific Plan area. Access to Parking Structure C would be provided by South Linden Avenue. Upon full buildout of the parking structure, project increases to the average peak hour volume along this segment of South Linden Avenue are estimated to be approximately 450 vehicles based on data provided by the project traffic engineer (included in **Appendix 4.11-1** of this EIR).

Traffic-related noise associated with Project Structure C is estimated assuming a maximum of 450 vehicles per hour would enter or exit the parking structure (i.e., both inbound and outbound trips). The nearest noise-sensitive land uses are the Sonesta ES Suites San Francisco Airport San Bruno,

located approximately 750 feet west of the approximate center of the parking structure, and the residences to the south of the project site, located approximately 950 south of the approximate center of the parking structure. There is also a commercial structure located directly north of the parking structure, approximately 100 feet from the center of the structure. Distances to the center of the parking structure are used because it represents the average location of all vehicles circulating in and out of the structure at any given time.

According to FTA's *Transit Noise and Vibration Impact Assessment Manual*,<sup>24</sup> 1,000 cars in a peak activity hour would generate a sound equivalent level (SEL) of 92 dBA at 50 feet. This value was converted to an hourly  $L_{eq}$  (average) noise level and used to calculate the  $L_{eq}$  noise level of a maximum of 450 vehicles per hour using the parking garage. At a distance of 50 feet, 450 vehicles using the garage per hour (conservatively assuming all vehicles were located close to one another within the multi-story structure) would result in an hourly  $L_{eq}$  noise level of 53 dBA  $L_{eq}$ . At a distance of 100 feet, the distance to the nearest commercial building from the approximate center of the structure, this would be reduced to 47 dBA  $L_{eq}$ . At a distance of 750 feet, the distance to the nearby hotel building from the approximate center of the structure, this would be reduced to 29 dBA  $L_{eq}$  without accounting for shielding from intervening buildings (which would further reduce noise). At a distance of 950 feet, the distance to the nearest residences from the approximate center of the structure, this would be reduced to 27 dBA  $L_{eq}$  without accounting for shielding from intervening buildings.

These noise levels are well below all estimated existing ambient noise levels in the project area, as shown in **Table 4.11-6, p. 4.11-10**. For example, the existing ambient noise along Huntington Avenue south of Sneath Lane (estimated from traffic noise levels) was approximately 64 dBA  $L_{dn}$  and along Dollar Avenue near Tanforan Avenue was estimated from traffic volumes to be approximately 60.8  $L_{dn}$ . Existing ambient noise along Tanforan Avenue was estimated to be 58.6  $L_{dn}$ . Parking lot noise in this area from Parking Structure C activity would be more than 30 dB below the estimated existing ambient noise levels. Noise from parking structure activity would also be further reduced somewhat by the design features of the structure itself, and by intervening buildings.

Because parking structure noise would not be expected to perceptibly increase ambient noise levels at nearby sensitive receptors, noise increases in the project vicinity from parking garage activity would not be considered substantial. This impact would be **less than significant**. No mitigation measures are required.

### **Outdoor Gathering Areas**

#### *Southline Commons*

As shown in **Figure 3-24** in Chapter 2, *Project Description*, of this EIR, an approximately 1.5-acre open space, referred to as Southline Commons, would be developed in the center of the Specific Plan area north of the new Southline Avenue. Development of Southline Commons is anticipated to occur during future phases of development within the Specific Plan area. This area would serve as a public central gathering space within the Specific Plan area and would provide passive and active open space that would serve as an exterior amenity for campus tenants. While the specific design of the Southline Commons is not yet known, for purposes of this analysis, it is assumed that this area

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<sup>24</sup> Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, FTA Report No. 0123, 2018, [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](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 August 10, 2020.

would include certain programming, including: two lounge areas totaling 2,750 square feet; a 7,050-square-foot dining area; and two activity/recreation areas that would total approximately 3,000 square feet. The lounge and dining areas would include seating areas, while the activity/recreation areas would include recreational activities such as a bocce ball court, ping pong table, and cornhole. In total, this outdoor area would have an estimated capacity for approximately 320 people according to the project applicant.

Operation of the project could involve formal events with amplified music held at Southline Commons. Such events would be required to comply with Section 8.32.070 *Amplified Sound*, of the South San Francisco Municipal Code. Specifically, Section 8.32.070 provides that “it is unlawful for any person, other than personnel of law enforcement or governmental agencies, to install, use or operate within the city a loudspeaker or sound-amplifying... without first having obtained a permit from the chief of police.” All future events would be required to obtain such a permit and must comply with the stipulations of those permits related to maximum sound levels. Because any events with amplified music or speech would comply with the requirements of the applicable permit, noise from such events would comply with local regulations. Impacts from amplified music or speech at events would be less than significant.

With regard to noise from persons conversing and recreating at outdoor dining areas or walkways, noise from a person talking normally is in the range of 57 dBA at a distance of 1 meter, which equates to approximately 33 dBA at 50 feet.<sup>25</sup> Conservatively assuming that 320 persons were socializing in the Southline Commons at a given time (the full capacity of the space), located close to one another, and assuming about half of them were talking at a given moment, combined noise from people’s voices would be approximately 55.4 dBA at a distance of 50 feet. At greater distances, noise would be further reduced. In addition, because Southline Commons is located in the central portion of the Specific Plan area, noise from activities in this area would be substantially reduced at the nearest residential receptors due to the line of sight being blocked by Specific Plan buildings and noise attenuated accordingly. Therefore, noise from outdoor activities in this area would not result in significant noise impacts to nearby sensitive uses.

#### *Southline Retail Plaza*

As shown in **Figure 3-24** in Chapter 2, *Project Description*, of this EIR, the project includes ground-floor public dining and gathering area located immediately adjacent to the north and west portion of the amenities building (Building 2), referred to as the Southline Retail Plaza, which will be developed during Phase 1. The Southline Retail Plaza would be designed to complement and support the adjacent ground floor retail, and is envisioned to include features such as outdoor dining areas, terraced seating and landscaping to serve as both a both buffer and transition to adjacent street edge. The Southline Retail Plaza is located approximately 100 feet from the closest off-site residential uses south of Tanforan Avenue.

The expected capacity for the Southline Retail Plaza would be approximately 130 people. Assuming half of these people were talking at a normal level and all persons were located close to one another, noise at a distance of 50 feet would be approximately 51.4 dBA. The line of sight between the nearest residences (south of Tanforan Avenue) and most of this area would be fully blocked by Building 2. However, the westernmost portion of the gathering area may have a direct line of sight to the residences located about 100 feet to the south. At a distance of 100 feet, and assuming half of the

<sup>25</sup> Harris, Cyril M. 1979. *Handbook of Noise Control, Second Edition*. Page 14-2.

people in this area were located in the portion of the space that has a direct line of sight to these residences (e.g., 64 persons, with half talking at a given moment), noise levels would be up to 42.4 dBA. With existing ambient noise along Huntington Avenue south of Sneath Lane (estimated from traffic noise levels) of approximately 64 dBA  $L_{dn}$ . Traffic noise would mask human-generated noise from the Southline Retail Plaza. Therefore, noise from persons conversing in this area would not be expected to result in perceptible ambient noise levels increases at nearby uses.

#### *Amenity Building Terrace*

The third story of the amenities building (Building 2) includes an outdoor terrace area located on the northern portion of the building facing towards the Specific Plan area. The outdoor terrace is intended for private uses, and would not be open to the public. The total capacity of the outdoor terrace is 236 persons. However, the line of sight between the outdoor terrace area and the nearest residences would be blocked by the building itself, substantially reducing the already low noise levels. Also, due to the elevation of the terrace (which provides additional noise attenuation), the distance between the nearest residences and the terrace would be greater than the distance between the residences and the ground floor dining and gathering area (100 feet). Therefore, noise from this area would also not result in perceptible increases to the ambient noise level at nearby residences.

#### *Tanforan Avenue Community Parklet*

Buildings on the north side of Tanforan Avenue will be set back by approximately 40 feet to allow for a publicly accessible landscaped parklet referred to as the Tanforan Avenue Community Parklet, shown in **Figure 3-24** in Chapter 2, *Project Description*, of this EIR. The Tanforan Avenue Community Parklet is intended to provide an outdoor amenity area for Southline employees and surrounding community members (including residents and employees), and to create a transition between the Specific Plan area and the residential neighborhood to the south. The Tanforan Avenue Community Parklet is anticipated to be constructed as part of Phase 1 development. The Tanforan Avenue Community Parklet would be an area for passive recreation during daytime hours, with an estimated capacity of up to 75 persons. Noise anticipated within this area would be from persons conversing and recreating. Assuming about half of the persons in the park were talking at a given moment, and half capacity of the parklet was located near one another at a given time (e.g., one quarter of the 75 person capacity talking at once in a given area), combined noise at a distance of 50 feet could conservatively be estimated to be up to 46.1 dBA. As described above, traffic noise in this area is greater than this level, with a modeled existing traffic noise level along Huntington Avenue south of Sneath Lane of 63.6 dBA  $L_{dn}$  and along Tanforan Avenue south of the project site of 58.6 dBA  $L_{dn}$ . Therefore, noise from this area would also not result in perceptible increases to the ambient noise level at nearby residences.

#### *Outdoor Gathering Noise Summary*

Overall, the primary source of noise within the various project outdoor gathering spaces is from people talking within those spaces. As described above, noise from talking and conversation within the outdoor gathering spaces would not be expected to result in substantial temporary or permanent increases in noise levels in the project vicinity, as this noise would be localized within particular areas of the Specific Plan and exceeded by other higher dB ambient noises. In addition, and although events would not be expected to be common or regular occurrences, should the applicants of future Precise Plans propose any formal events with amplified music or speech in

Southline Commons, a permit would be required, and the event would need comply with local noise regulations per the City of South San Francisco Municipal Code. Therefore, operational noise impacts associated with Specific Plan outdoor use areas (inclusive of Phase 1 areas) would be ***less than significant***. No mitigation measures are required.

## **Phase 1**

### ***Traffic***

Traffic generated by Phase 1 would be less than the overall traffic generated by buildout of the project because Phase 1 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 Phase 1 is a component of the project and would result in less traffic than the overall project, traffic noise impacts from implementation of Phase 1 would also be ***less than significant***.

### ***Heating, Cooling, and Ventilation Equipment***

As previously stated, estimated noise from heating, cooling, and ventilation equipment for Phase 1 is analyzed above under the project analysis because Phase 1 includes the closest equipment to off-site noise-sensitive land uses. Therefore, for the reasons stated above in the project analysis, with implementation of **Mitigation Measure NOI-1c**, Phase 1 impacts would be ***less than significant with mitigation***.

### ***Emergency Generator Testing***

As previously stated, estimated noise from emergency generator testing for Phase 1 is analyzed above under the project analysis because Phase 1 includes the closest equipment to off-site noise-sensitive land uses. Therefore, for the reasons stated above in the project analysis, with implementation of **Mitigation Measure NOI-1d**, Phase 1 impacts would be ***less than significant with mitigation***.

### ***Loading Dock Activity***

As previously stated, estimated noise from loading dock activity for Phase 1 is analyzed above under the project analysis because Phase 1 includes the closest loading docks to off-site noise-sensitive land uses. Therefore, for the reasons stated above in the project analysis, Phase 1 impacts would be ***less than significant***.

### ***Parking Garage Activity***

Parking Structure C, which would be partially constructed during Phase 1 and fully constructed during future project phases, would be located in the northeast portion of the Specific Plan area. The project analysis above evaluates noise from full buildout of Parking Structure C and determines that impacts would be less than significant. Since Phase 1 would develop a portion of Parking Structure C and would therefore generate less vehicle activity within the parking structure than analyzed in the project analysis, Phase 1 impacts can also be presumed to be ***less than significant***.

### ***Outdoor Gathering Areas***

Phase 1 would include approximately 128,440 square feet (approximately 3 acres) of open space, including the Southline Retail Plaza and Tanforan Avenue Community Parklet. Impacts associated with human activity in the Southline Retail Plaza and Tanforan Avenue Community Parklet are

analyzed in the project analysis above. Therefore, for the reasons stated above in the project analysis, Phase 1 impacts would be *less than significant*.

**Impact NOI-2: The project would not generate excessive ground-borne vibration or ground-borne noise levels. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

**Project**

Section 20.300.010(F) of the South San Francisco Municipal Code states that no vibration shall be produced that is transmitted through the ground and discernible without the aid of instruments by a reasonable person at the lot lines of the site. However, vibration from temporary construction, demolition, and vehicles that enter and leave the subject parcel (e.g., construction equipment, trucks) are considered exempt from this standard in South San Francisco. For the proposed project, because construction may cause vibration effects on land uses within San Bruno, just south of the Phase 1 site, vibration-related damage and annoyance effects on nearby uses from temporary construction area analyzed. The criteria that are applied in the assessment of vibration-related damage and annoyance impacts are described below.

**Damage to Structures**

Construction of the proposed project would require equipment that could generate ground-borne vibration; however, most of the proposed equipment types generate relatively low vibration levels. Typical vibration levels associated with heavy-duty construction equipment at a reference distance of 25 feet are shown in **Table 4.11-3, p. 4.11-7**. Impact pile drivers are not proposed for project construction; rather, drilled, cast-in-place piles would be used. The types of equipment proposed for project construction with the greatest potential to generate vibration are pavement breakers/hoe rams, drill rigs, and ground-disturbing equipment, such as an excavator and a gradall. Ground-disturbing equipment typically generates vibration levels similar to those of a large bulldozer.

The off-site residential structures nearest to on-site construction areas (i.e., within the Specific Plan area) are at least 55 feet away from the Phase 1 site, south of Tanforan Avenue, in San Bruno. Commercial and/or light industrial buildings are north and southeast of the project site, in South San Francisco. These structures could be as close as 30 feet from project construction. Limited off-site work within the public right of way would take place near the western terminus of Tanforan Avenue to create a turnaround cul-de-sac at the intersection of Tanforan Avenue and Huntington Avenue; this work would take place for 15 to 30 days. However, this work could occur as close as 10 feet from the nearest residential structure at times and likely would involve the use of a tractor, backhoe, and paver. A concrete saw may also be needed. In addition, some utilities would be undergrounded in Tanforan Avenue which would also require limited work within the street near adjacent residences. This would include sewer upsizing, which would occur directly within Tanforan Avenue and would involve the use of concrete saws and excavators, and undergrounding of PG&E utilities, which would require coordination with occupants of nearby residences.

With regard to potential damage effects at nearby commercial or office buildings, should an auger drill, pavement breaker/hoe ram, or large bulldozer be used within 30 feet of such structures, it would generate a PPV of approximately 0.068 inch per second at the nearest structure. (Note that all of these equipment types generate approximately the same vibration level.) The closest adjacent commercial, office, or industrial buildings are located to the southeast and north of the project site, approximately 30 to 50 feet from potential project construction work areas. These buildings would very likely be categorized as “modern industrial/commercial” buildings according to the Caltrans

Vibration Damage Guidelines (refer to **Table 4.11-4, p. 4.11-7**), which have a damage criterion that specifies a PPV of 0.5 inch per second. The PPV of 0.068 inch per second is well below this level. Therefore, vibration-related damage impacts on these commercial, office, and/or light industrial structures would be less than significant.

When on-site construction and demolition activities would occur near the southern boundary of the Phase 1 site, equipment could be operating within 55 feet of nearby residential structures. Although the precise types of equipment that could be used within 55 feet of these homes is not known at this time, it is conservatively assumed that the most vibration-intensive equipment (e.g., drill rigs and large pieces of ground-disturbing equipment, which produce vibration levels similar to those of a large bulldozer) could be used in this area. At a distance of 55 feet, the vibration level from the operation of an auger drill, pavement breaker, or large bulldozer would have a PPV of approximately 0.027 inch per second. The residential structures can conservatively be categorized as “older residential structures,” with an applicable vibration damage criterion for continuous/frequent intermittent sources of vibration (i.e., a PPV of 0.3 inch per second) (refer to **Table 4.11-4, p. 4.11-7**). The estimated vibration level (i.e., PPV of up to 0.027 inch per second) at these residences would therefore be well below the applicable damage criterion (i.e., PPV of 0.3 inch per second). Damage-related vibration impacts on these structures would be less than significant.

With regard to off-site, in-street work within Tanforan Avenue, including the work to create a turn-around near the western terminus of Tanforan Avenue, a tractor, backhoe, concrete saw, and paver may be used. Vibration levels from a small bulldozer can be used to estimate vibration levels from a tractor and a backhoe. In addition, some utilities would be undergrounded in Tanforan Avenue which would also require limited work within the street, near adjacent residences to the south. An excavator, backhoe, and tractor, the most vibration-intensive equipment for this work, would all generate vibration levels similar to those of a small bulldozer (see **Table 4.11-3, p. 4.11-7**). At a distance of 10 feet, vibration levels from a small bulldozer would be approximately 0.012 PPV inch per second. At a distance of 5 feet, vibration levels from this equipment would be approximately 0.034 PPV inches per second. These values are also well below the damage criterion for older residential structures (i.e., PPV of 0.3 inch per second). Note that, 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 (e.g., PPV vibration levels) levels do not combine in this way, and overall vibration levels are governed by the most vibration-intensive equipment being used at a given time.

Because vibration generated by project construction would not be expected to result in vibration levels that would be in excess of the applicable damage criterion at nearby structures, impacts related to vibration-related structural damage would be ***less than significant***. No mitigation measures are required.

#### ***Annoyance-Related Vibration Impacts***

Regarding annoyance-related vibration impacts, a significant vibration impact related to sleep disturbance could occur when nighttime construction activities generate vibration levels that are strongly perceptible (i.e., PPV of 0.01 inch per second) (as shown in **Table 4.11-5, p. 4.11-7**) at locations where people sleep for a prolonged period of time. Sleep disturbances from vibration typically occur only if residences are very close to nighttime ground-disturbing construction activities. The nearest residential land uses would be approximately 55 feet south of the Specific Plan area. The only construction activities proposed for nighttime hours are concrete pours. These

would take place at least 100 feet away from the residences along Tanforan Avenue, near the building footprints for the Phase 1 buildings.

Although the exact number of nighttime concrete pours required for overall project construction is not known at this time, there would be approximately 18 nighttime concrete pours during Phase 1 construction. Phase 1 construction would occur closer to occupied nearby residences than any other phase of project construction. Therefore, the worst-case analysis of nighttime construction vibration impacts for the Specific Plan focuses on the nighttime concrete pours for Phase 1. The equipment used during these pours could result in the generation of some vibration. However, concrete mixers and concrete pumps do not typically generate high levels of vibration.

As discussed above, Phase 1 construction would include approximately 18 nights of concrete pours that would occur in proximity to residential uses as compared to other nighttime concrete pours required for later Specific Plan construction phases that would be located further from nearby homes. Equipment utilized during Phase 1 concrete pour activity would be at least 100 feet, and usually much farther, from the nearest sensitive receptors where people sleep during nighttime hours. Concrete mixers and concrete pumps would generate less vibration than a small bulldozer, which is the piece of equipment in the Federal Transit Administration list of vibration source levels with the lowest level of vibration. A small bulldozer would result in a very low vibration level with a PPV of approximately 0.0004 inch per second at a distance of 100 feet. This level is well below the strongly perceptible threshold (i.e., PPV of 0.1 inch per second) (refer to **Table 4.11-5, p. 4.11-7**) and below the barely perceptible threshold (i.e., PPV of 0.01 inch per second) by a factor of about 25. When nighttime construction occurs farther north or at greater distances from these homes for later Specific Plan construction phases, nighttime vibration levels would be even lower. Therefore, although nighttime construction activities have a limited potential to cause sleep disturbance or nighttime vibration-related annoyance at nearby residential land uses. Vibration impacts from project construction related to annoyance and sleep disturbance would be considered ***less than significant***. No mitigation measures are required.

## **Phase 1**

### ***Damage to Structures***

The project analysis of potential vibration impacts to structures accounts for the distances between Phase 1 buildings and the nearest adjacent commercial and residential structures. Therefore, for the reasons stated above in the project analysis, Phase 1 impacts would be ***less than significant***.

### ***Annoyance-Related Vibration Impacts***

Annoyance-related vibration impacts for Phase 1 are analyzed above under the project analysis because Phase 1 includes the closest nighttime vibration-generating construction activities to off-site noise-sensitive land uses. Therefore, for the reasons stated above in the project analysis, Phase 1 impacts would be ***less than significant***.

**Impact NOI-3: The project would not expose people residing or working in the project area to excessive noise levels 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. (Project: Less than Significant; Phase 1: Less than Significant)**

## 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, the closest public airport, is approximately 1.1 miles southeast of the project site. The project site is located partially within the 2012 ALUCP 65 dBA CNEL noise contour, and partially within the 2012 ALUCP 70 dBA CNEL noise contour; no portion of the project site is located within the 75 dBA CNEL noise contour (as shown in **Figure 4.10-3** in Section 4.10, *Land Use and Planning*, of this EIR). The 2012 ALUCP designates most recreational, commercial, and industrial/production land uses as compatible uses within the 70 dBA CNEL noise contour. Residential land uses are designated as incompatible within the 70 dBA CNEL noise contour, according to the ALUCP for SFO; however, no residential land uses are proposed by the project.

Land uses allowed under the proposed project include commercial, office, and/or R&D land uses. According to Table IV-1 of the ALUCP (entitled “Noise/Land Use Compatibility Criteria”), these types of land uses (i.e., office, business and professional, general retail uses) are considered compatible with all airport-related noise levels. For these reasons, impacts related to excessive aircraft noise from public airports or private airstrips for the project would be ***less than significant***.

## Phase 1

There are no private airstrips in the vicinity of the Phase 1 site. Therefore, there would be no impact related to aircraft noise from private airstrips. The Phase 1 site is partially within the 65 dBA CNEL noise contour and partially within the 70 dBA CNEL noise contour for SFO, according to the airport noise contours presented in the ALUCP (as shown in **Figure 4.10-3** in Section 4.10, *Land Use and Planning*, of this EIR). The types of land uses proposed under the project and within the Phase 1 area (e.g., office, commercial, and/or R&D uses) are considered to be compatible with all airport-related noise levels, including noise levels in the 70 to 75 dBA CNEL range. Therefore, noise impacts related to aircraft noise from private airstrips or public airports at the Phase 1 site would be ***less than significant***.

### 4.11.4.4 Cumulative Impacts

The cumulative geographic context for noise and vibration varies, depending on the source of the noise or vibration. Specifically, the geographic context for cumulative construction noise impacts typically encompasses cumulative projects within 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 heating and cooling or other mechanical equipment, as well as 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 the overall forecast average daily traffic along roadway segments near the project site, which includes traffic increases from all growth in the project area, as predicted in the traffic model. The cumulative projects within 0.5 mile of the project site are described in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR and shown in **Figure 4.1-1, p. 4.1-10**.

**Impact C-NOI-1: The project, inclusive of Phase 1, together with the cumulative projects identified, could 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 the local general plan or noise ordinance or applicable standards of other agencies. (*Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable*)**

### **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 at a given receiver.

The cumulative setting for construction noise impacts is considered to be approximately 1,000 feet from the project site, since projects located within this distance could expose receptors between the two projects to noise, depending on the intervening distances. Cumulative projects within 1,000 feet of the project site are the 410 Noor Avenue Project, located approximately 700 feet west of the project site; the 180 El Camino Real Project, located more than 800 feet west of the project site; the Caltrain Peninsula Corridor Electrification Project (which would include construction along the Caltrain ROW and will increase trains along the ROW); and the California High-Speed Rail Project (which would include installation of four quadrant safety gates at the Linden Avenue crossing, approximately 50 feet east of the project site and would also increase trains along the ROW). The Caltrain electrification project is under construction now and will likely be completed before commencement of Phase 1 construction. Exact construction schedules for the other projects have not been determined at this time. It is, however, possible that construction for one or more of these projects could occur concurrently with Phase 1 and/or Specific Plan buildout construction activities.

As described under Impact NOI-1, project construction would occur mostly during the standard daytime hours for construction, as defined by the South San Francisco and San Bruno Municipal Codes. Similarly, construction for cumulative projects would very likely occur primarily during daytime hours. During these hours, construction noise restrictions are less stringent, and nearby receptors are considered less sensitive to noise. However, some nighttime construction is proposed for the project, including concrete pours, as well as early-morning construction (e.g., for Phase 1), which may commence prior to the start of “daytime” hours defined by the City of South San Francisco.

It is possible that future cumulative projects may also propose construction activities outside standard daytime hours. Specifically, nighttime construction could occur for the Caltrain Peninsula Corridor Electrification Project or the California High-Speed Rail Project, which would include construction along Herman Street southeast of the project site. Should construction of these projects occur concurrently with the proposed project, residential receptors along Tanforan Avenue could be exposed to construction noise during non-exempt hours from both the proposed project and these cumulative projects. With regard to the 410 Noor Avenue project, the project was entitled in December 2020, but the construction start date is currently unknown. Should construction of the 410 Noor Avenue project occur concurrently with the project and require nighttime construction work, receptors at the Sonesta ES Suites San Francisco Airport San Bruno could be exposed to simultaneous nighttime construction noise from both projects. Note that, at greater distances, cumulative construction noise would be less likely to combine to result in greater impacts. For example, as shown in **Table 4.11-11, p. 4.11-17**, combined construction noise from a concrete saw, excavator, and hoe ram at a distance of 25 feet would be approximately 93 dBA

$L_{eq}$ . At a distance of 800 feet, without accounting for attenuation from shielding from intervening buildings, noise would be reduced by 30 dB to approximately 63 dBA  $L_{eq}$ . Therefore, construction noise from cumulative projects located further away would be less likely to combine with project construction noise to result in greater overall noise levels.

Therefore, although specific details about construction schedules are not known at this time, should cumulative project construction occur concurrently with project construction, and should construction for cumulative projects commence before the start of daytime hours, construction noise from multiple projects could combine to expose the same receptors (e.g., nearby hotel or residential land uses) to noise levels could combine to result in perceptible (3 dB) increases in noise. For these reasons, cumulative construction noise impacts would be considered potentially significant.

As discussed in the project analysis, because project construction could occur outside daytime hours, resulting in noise levels of up to approximately 81 dBA  $L_{eq}$  at nearby residences (e.g., from operation of a concrete saw, excavator, and hoe ram) project impacts would be significant and unavoidable. Therefore, the project's contribution to the cumulative construction noise impact during non-daytime hours would be cumulatively considerable. While implementation of **Mitigation Measure NOI-1a**, which includes measures to reduce noise from construction activity during all hours, including non-daytime hours, and **Mitigation Measure NOI-1b**, which requires the construction of a temporary noise barrier along the southern perimeter of the project site, would be implemented to reduce the project's contribution to cumulative noise levels, it may not be possible to reduce noise levels during all non-daytime construction activities to less-than-significant levels. Therefore, cumulative construction noise impacts would be *significant and unavoidable*.

## Operational Noise

### Traffic

To determine potential cumulative traffic noise impacts in the project area, traffic volumes from the existing scenario were compared to the 2040 with-project scenario. A cumulative traffic noise impact is anticipated along a given roadway segment if a 3 dB increase in noise would occur in areas where existing and resulting noise levels are above the applicable land use compatibility standard or if a 5 dB increase in noise would occur in areas where existing and resulting noise levels are below the applicable land use compatibility standard. If a cumulative impact is identified, then the proposed project's contribution to that impact must be assessed to determine if it would contribute 3 dB to the overall increase. If it would contribute 3 dB or more to the overall increase, the project's cumulatively considerable contribution to the cumulative impact would be considered significant.

**Table 4.11-19, p. 4.11-57**, shows cumulative traffic noise increases and includes an analysis of potential impacts along roadway segments near the project site. There were no segments identified where a 5 dB increase in noise would occur from existing to future with-project levels in areas where future noise levels would be below the acceptable land use compatibility standard. Similarly, there were no segments identified where a 3 dB increase in noise would occur in areas where future noise levels would be above the acceptable land use compatibility standard. Cumulative traffic noise impacts would be *less than significant*.

Table 4.11-18. Modeled Cumulative Traffic Noise Impacts

Roadway	Segment	Most Sensitive Adjacent Land Use Type	Existing (dB L <sub>dn</sub> )	Cumulative No Project (dB L <sub>dn</sub> )	Cumulative Plus Project (dB L <sub>dn</sub> )	Applicable Compatibility Standard (dB L <sub>dn</sub> )	Exceeds Compatibility Standard?	Allowable Increase (dB)	Cumulative Plus Project Minus Existing (dB)	Potential Cumulative Impact?
Sneath Lane	Between I-280 and Cherry Avenue <sup>1</sup>	MFR	66.5	67.3	67.7	65	Yes	3	1.2	No
Sneath Lane	Between Cherry Avenue and El Camino Real <sup>a</sup>	C/O/I	69.7	70.0	70.7	70	Yes	3	1.1	No
El Camino Real	Between Sneath Lane and I-380 <sup>a</sup>	C/O/I	71.3	71.9	72.2	70	Yes	3	0.9	No
El Camino Real	Between I-380 on-/off-ramps <sup>a</sup>	NA	71.7	72.3	72.6	NA	NA	NA	0.9	No
Sneath Lane	Between El Camino Real and Huntington Avenue <sup>a</sup>	C/O/I	64.9	65.4	67.1	70	No	5	2.2	No
Huntington Avenue	Between San Bruno Ave and Forest Lane <sup>a</sup>	SFR	63.9	64.7	65.1	60	Yes	3	1.2	No
Huntington Avenue	Between Forest Lane/Herman Street and Sneath Lane <sup>a</sup>	SFR	63.6	64.4	64.8	60	Yes	3	1.2	No
San Mateo Avenue	Between South Linden and South Airport Boulevard <sup>b</sup>	C/O/I	67.6	67.9	68.7	70	No	5	1.1	No
South Linden Avenue	Between Grand Avenue and San Mateo Avenue <sup>b</sup>	SFR	67.1	67.6	69.1	65	Yes	3	2.1	No
South Linden Avenue	Between Dollar Avenue and San Mateo Avenue <sup>b</sup>	C/O/I	60.5	61.8	64.7	70	No	5	4.2	No
Tanforan Avenue	Huntington Avenue and Dollar Avenue <sup>a</sup>	SFR	58.6	59.8	55.4	60	No	5	-3.2	No
South Maple Avenue	Tanforan Avenue and Victory Avenue <sup>a,b</sup>	C/O/I	60.5	61.7	64.6	70	No	5	4.1	No
Dollar Avenue/Herman Street	Between Tanforan Avenue and Scott Street <sup>a</sup>	SFR	60.8	62.1	62.3	60	Yes	3	1.5	No

Notes:

<sup>a</sup>. Segment is located in the city of San Bruno.

<sup>b</sup>. Segment is located in the city of South San Francisco.

N/A indicates that there would be no potential cumulative impact and, thus, no cumulatively considerable increase attributable to the proposed project.

Source: Traffic volumes provided by Fehr & Peers. Modeling conducted using a spreadsheet that was based on the FHWA Traffic Noise Model, version 2.5, at a fixed distance of 33 feet from the roadway centerline.

### ***Heating, Cooling, and Ventilation Equipment***

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 and Phase 1 heating and cooling equipment would be localized and would attenuate rapidly with distance, it is possible that project heating and cooling 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 that noise-generating uses from nearby projects could be close enough to one another that heating and cooling noise from multiple projects could combine and result in a cumulative noise impact.

For example, the hotel (Sonesta ES Suites San Francisco Airport San Bruno) located approximately equidistant from 410 Noor Avenue and the proposed project, and with a line of sight to both projects, could experience noise from heating and cooling equipment at both projects. An example receptor at the hotel could be located over 550 feet from the nearest project heating, cooling, and ventilation equipment and 500 feet from the nearest Noor Avenue heating, cooling, and ventilation equipment. Although the exact numbers, makes, models, and sizes of proposed mechanical heating, cooling, and ventilation equipment for the project and for 410 Noor Avenue are not known at this time, an example case of potential combined noise levels was modeled, based on the types of equipment proposed for Phase 1.

Combined noise levels from example heating and cooling equipment as presented for the Phase 1 analysis above were estimated at 500- and 550-foot distances. Specifically, combined noise levels from two boilers, two chillers, and two pumps located in a mechanical equipment room; two cooling towers and two air handling units located behind solid screens; and two exhaust fans not located in an equipment room or behind screens at a distance of 500 feet would be approximately 63.5 dBA  $L_{eq}$ , and at a distance of 550 feet, would be approximately 62.7 dBA  $L_{eq}$ . Note that this analysis conservatively assumes the same amount of equipment would be installed at 410 Noor Avenue as is likely to be installed for Phase 1, which is a conservative assumption (since 410 Noor Avenue is not an R&D land use). These noise levels could combine at a single receptor to result in an overall noise level from Project HVAC and 410 Noor Avenue HVAC of approximately 66.1 dBA  $L_{eq}$ , which is about 3 dB higher than noise levels from HVAC equipment from each project alone. A 3 dB increase is considered to be barely perceptible. Should more equipment be installed at either location, or should the equipment noise levels be louder than estimated in this analysis, the increase could be greater. Therefore, although complete details about heating and cooling equipment for the proposed Specific Plan and nearby development projects are not known at this time, it is possible that noise from heating and cooling for the proposed project could combine with heating and cooling noise from nearby projects to cause a cumulative noise impact at nearby residential land uses. This cumulative impact is considered potentially significant.

With implementation of project **Mitigation Measure NOI-1c**, project-related impacts would be reduced to less-than-significant levels, and the contribution of the project to the potential cumulative impact would be ***less than cumulatively considerable with mitigation***.

### ***Emergency Generator Testing***

Emergency generators included in the development of future buildings under the Specific Plan would result in the generation of audible noise during testing. With regard to the potential for cumulative impacts, the nearest cumulative projects to the project site are the 410 Noor Avenue Project, approximately 700 feet west of the project site; and the 180 El Camino Real Safeway

Shopping Center Project, more than 800 feet west of the project site. Should nearby projects also install emergency generators, and should generator testing occur simultaneously for a nearby project and the proposed project, a potential cumulative impact could occur.

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 regarding the emergency generators proposed for Specific Plan or nearby future projects are not known at this time, it is known that the Phase 1 generators would be tested approximately once per month for 30 minutes at a time. In general, it is very unlikely that the testing of an emergency generator for the proposed project would occur concurrently with the testing of a generator at a nearby project. 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***.

#### ***Loading Dock Activity***

Loading docks included in the development of future buildings under the Specific Plan would result in the generation of audible noise during loading activities. The nearest cumulative projects to the project site are the 410 Noor Avenue Project, approximately 700 feet west of the project site; and the 180 El Camino Real project, more than 800 feet west of the project site. Should nearby projects also include loading docks, and should loading activity occur simultaneously for a nearby project and the proposed project, a potential cumulative impact could occur.

Loading dock noise is intermittent, and noise levels are abated by intervening buildings. Even if loading activities were to occur simultaneously, which is unlikely, it is not likely that the loading docks would be close enough to one another for the noise to combine at a given individual receptor the distance and intervening buildings and roadways between the cumulative projects and the project site. Cumulative noise impacts related to loading dock activity would be ***less than significant***.

#### ***Parking Garage Activity***

Parking Structure C, which would be partially constructed during Phase 1 and fully constructed during future project phases, would be located in the northeast portion of the Specific Plan area. The nearest cumulative projects to the project site are the 410 Noor Avenue Project, approximately 700 feet west of the project site; and the 180 El Camino Real project, more than 800 feet west of the project site. Given the distance and intervening buildings and roadways between the cumulative projects and Parking Structure C, noise levels associated with Parking Structure C would not combine with cumulative projects to impact sensitive receptors. Cumulative noise impacts related to parking garage activity would be ***less than significant***.

#### ***Train Noise Combined with Project Noise***

The Caltrain Peninsula Corridor Electrification Project and the California High Speed Rail (HSR) Project would increase trains along the Caltrain ROW adjacent to the eastern portion of the Specific Plan area. The California High Speed Rail Authority (CHSRA) evaluated the combined effects of increased Caltrain and HSR trains in the draft EIR/EIS for the project and found there would be significant noise impacts to residential receptors west of the Caltrain ROW between Tanforan Avenue and Scott Street prior to mitigation (CHSRA 2020). CHSRA identified several mitigation

approaches to address the significant impacts including noise barriers, building insulation, and/or implementation of quiet zones by the local jurisdiction (to lower train horn noise). CHSRA identified that significant train noise impacts would be reduced to a less than significant level and less than existing noise levels for residences between Tanforan Avenue and Scott Boulevard with either a noise barrier or implementation of a quiet zone for the Linden Avenue and Scott Boulevard at-grade crossings. Thus, with implementation of the proposed mitigation in the draft EIR/EIS for the HSR project, noise levels would be less than under existing conditions, and operational noise associated with the Specific Plan (whether traffic noise or other operational noise) would not combine with train noise from these projects to result in a significant cumulative noise impact. Cumulative noise impacts would be *less than significant*.

**Impact C-NOI-2: The Project, inclusive of Phase 1, together with the cumulative projects identified, would not result in the generation of excessive ground-borne vibration or ground-borne noise levels. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

Vibration impacts are based on instantaneous PPV levels. Therefore, because PPV is a measure of the peak instantaneous vibration level, rather than an average, other sources of vibration operating simultaneously (e.g. for other project sites, or even on the same project site) would not be expected to combine to raise the overall peak vibration level experienced at a nearby sensitive use. Worst-case ground-borne vibration levels are generally determined by whichever equipment generates the highest vibration level at the affected location, so vibration would be dominated by the closest and most vibration-intensive equipment being used at a given time. For example, 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 combine to raise the maximum PPV level at sensitive uses near the project site.

For this reason, the cumulative impact of construction vibration from multiple construction projects near one another (or even adjacent to one another) would generally not combine to increase PPV vibration levels. Therefore, the cumulative geographic context for vibration is highly localized.

The cumulative projects within 0.5 mile of the project site are described in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR and shown in Figure 4.1-1, p. 4.1-10. The nearest cumulative land use projects are the Granite Rock Company Project, approximately 400 feet east of the project site, the 410 Noor Avenue Project, approximately 700 feet west of the project site. At these distances, peak vibration levels resulting from construction of the project would not be expected to combine with vibration effects from the construction of these cumulative projects, even if they were to be under construction simultaneously. The Caltrain PCEP and High-Speed Rail projects would include construction approximately 50 feet to 75 feet from the project site). The Caltrain PCEP will likely complete construction in adjacent areas prior to construction for Phase 1, but the HSR project may have concurrent construction at the Linden Avenue grade crossing where four quadrant safety gates would be installed. The HSR project includes mitigation to lower construction vibration effects to a less than significant level. In addition, because peak vibration levels do not combine to raise the maximum PPV level (as described previously), vibration from multiple construction sites, even if they are close to one another, would not be expected to combine to raise the maximum PPV level. Therefore, cumulative ground-borne vibration impacts related to both potential damage and annoyance would be *less than significant*.

**Impact C-NOI-3: The project (inclusive of Phase 1), together with the cumulative projects identified, would not expose people residing or working in the project area to excessive noise levels. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

There are no private airstrips in the vicinity of the project site and SFO; the closest public airport to the project site is approximately 1.1 mile southeast of the site. The project would not site any new residential land uses, nor would it result in increases in aircraft noise in the area. Note that land uses allowed under the proposed project include commercial, office, and/or R&D land uses. According to Table IV-1 of the SFO ALUCP (entitled "Noise/Land Use Compatibility Criteria"), these types of land uses (i.e., office, business and professional, general retail uses) are considered compatible with all airport-related noise levels. Therefore, development of the project, in conjunction with development of nearby cumulative projects, would not result in a significant cumulative impact related to the exposure of persons residing or working in the project area to excessive aircraft noise levels. Cumulative impacts related to aircraft noise from private airstrips and public use airports would be *less than significant*.

## 4.12 Population and Housing

### 4.12.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on population and housing. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described.

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. One NOP comment was received regarding the proposed project's jobs/housing balance. This issue is addressed below in Section 4.12.4, *Impacts and Mitigation Measures*.

### 4.12.2 Environmental Setting

This section provides a discussion of the existing conditions related to population, housing, and employment at the project site and in the surrounding area. Data for three geographies are presented: the City of South San Francisco, the San Francisco-Oakland-Hayward core-based statistical area (CBSA), and the Bay Area. The United States Office of Management and Budget defines a CBSA as a multi-county area anchored by an urban center of at least 10,000 people plus adjacent counties that are socioeconomically tied to the urban center by commuting. The San Francisco-Oakland-Hayward CBSA comprises Alameda, Contra Costa, Marin, San Francisco and San Mateo counties. The Bay Area is the nine-county region comprising Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

#### 4.12.2.1 Regional Setting

##### Population

According to the recent California Department of Finance data, the City of South San Francisco (City) has a population of 67,879 (as of January 1, 2020), and San Mateo County has a population of 773,244.<sup>1</sup> In addition, the City has an average household size of 3.14 persons per household, more than the 2.88 persons per household average for San Mateo County.<sup>2</sup>

As shown in **Table 4.12-1, p. 4.12-2**, according to the Association of Bay Area Governments (ABAG) *Projections 2040*, South San Francisco's household population is anticipated to increase by

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<sup>1</sup> State of California, Department of Finance, Table 2: E-5 City/County Population and Housing Estimates, 1/1/2020. Sacramento, California, May 2020.

<sup>2</sup> Ibid.

approximately 8,765 (13 percent), from 67,435 in 2020 to 76,200 in 2030.<sup>34</sup> South San Francisco's household population is anticipated to further increase by 2,975 (3.9 percent) between 2030 and 2040. The San Francisco-Oakland-Hayward CBSA's household population is anticipated to increase by approximately 415,035 (8.7 percent), from 4,763,545 in 2020 to 5,178,580 in 2030. The CBSA's household population is anticipated to further increase by 547,045 (10.6 percent) between 2030 and 2040. The Bay Area's household population is also expected to grow, increasing by approximately 750,705 (10 percent) between 2020 and 2030; it is anticipated to further increase by 942,130 (11.1 percent) between 2030 and 2040.

**Table 4.12-1. Plan Bay Area Population, Household, and Employment Projections, 2020–2040**

	2020	2025	2030	2035	2040
<b>South San Francisco</b>					
Total Population <sup>a</sup>	68,105	71,080	76,950	78,615	80,015
Household Population	67,435	70,370	76,200	77,820	79,175
Jobs	46,365	50,075	51,000	51,730	54,230
Employed Residents	34,075	35,045	37,390	37,365	37,055
Households	22,155	23,050	24,950	25,185	25,305
Employed Residents-to-Household Ratio	1.54	1.52	1.50	1.48	1.46
Persons per Household	3.04	3.05	3.05	3.09	3.13
Jobs per Household	2.09	2.17	2.04	2.05	2.14
Households per Job	0.48	0.46	0.49	0.49	0.47
<b>San Francisco-Oakland-Hayward Core-Based Statistical Area (CBSA)<sup>b</sup></b>					
Total Population <sup>a</sup>	4,862,325	5,060,665	5,288,390	5,531,325	5,848,415
Household Population	4,763,545	4,956,635	5,178,580	5,415,550	5,725,625
Jobs	2,588,320	2,671,565	2,756,575	2,851,060	2,930,840
Employed Residents	2,600,160	2,665,390	2,736,570	2,801,250	2,885,790
Households	1,815,635	1,884,720	1,960,135	2,030,970	2,122,840
Employed Residents-to-Household Ratio	1.43	1.41	1.40	1.38	1.36
Persons per Household	2.62	2.63	2.64	2.67	2.70
Jobs per Household	1.43	1.42	1.41	1.40	1.38
Households per Job	0.70	0.71	0.71	0.71	0.72

<sup>3</sup> Association of Bay Area Governments. 2019. *Projections 2040*. May. Available: <https://data.bayareametro.gov/Demography/Projections-2040-by-Jurisdiction/grqz-amra>. Accessed May 13, 2021.

<sup>4</sup> As discussed in Section 4.12.3.2, p. 4.12-4, 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.

	2020	2025	2030	2035	2040
<b>Bay Area<sup>c</sup></b>					
Total Population <sup>a</sup>	7,920,230	8,284,200	8,689,440	9,142,745	9,652,950
Household Population	7,758,540	8,113,640	8,509,245	8,952,495	9,451,375
Jobs	4,136,190	4,267,760	4,405,125	4,548,565	4,698,375
Employed Residents	4,147,000	4,270,595	4,397,865	4,528,925	4,663,900
Households	2,881,965	3,009,055	3,142,015	3,281,130	3,426,700
Employed Residents-to-Households Ratio	1.44	1.42	1.40	1.38	1.36
Persons per Household	2.69	2.70	2.71	2.73	2.76
Jobs per Household	1.44	1.42	1.40	1.39	1.37
Households per Job	0.70	0.71	0.71	0.72	0.73

<sup>a</sup> Includes 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.

<sup>b</sup> A core-based statistical area (CBSA) is defined by the United States Office of Management and Budget as a multi-county area anchored by an urban center and adjacent counties that are socioeconomically tied to the urban center by commuting. The San Francisco-Oakland-Hayward CBSA consists of Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties.

<sup>c</sup> Includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May.

## Housing

According to recent California Department of Finance data, the City has 22,437 total housing units and a 4.6 percent vacancy rate (as of January 1, 2020).<sup>5</sup> Approximately 59 percent (13,128) of the units are single detached units, approximately 6 percent (1,351) are in structures of two to four units, and approximately 21 percent (4,789) are in structures of five or more units. For 2020, sources have reported a median home value in South San Francisco of \$1,130,046 or higher.<sup>6</sup>

As shown above in **Table 4.12-1, p. 4.12-2**, according to ABAG's *Projections 2040*, the number of households in South San Francisco is expected to increase by approximately 2,795 (13 percent), from 22,155 in 2020 to 24,950 in 2030, and by approximately 355 (1.4 percent) between 2030 and 2040. The San Francisco-Oakland-Hayward CBSA's households will increase by approximately 144,500 (8 percent), from 1,815,635 in 2020 to 1,960,135 in 2030, and by approximately 162,705 (8.3 percent) between 2030 and 2040. Households in the Bay Area are expected to increase by 260,050 (9 percent) by 2030, and by approximately 284,685 (9.1 percent) between 2030 and 2040.

## Employment

As shown in **Table 4.12-1, p. 4.12-2**, according to ABAG's *Projections 2040*, jobs in South San Francisco are projected to increase by approximately 4,635 (10 percent) between 2020 and 2030

<sup>5</sup> State of California, Department of Finance, Table 2: E-5 City/County Population and Housing Estimates, 1/1/2020. Sacramento, California, May 2020.

<sup>6</sup> Zillow. 2020. South San Francisco Home Prices & Values. Available here: <https://www.zillow.com/south-san-francisco-ca/home-values/>. Accessed: September 21, 2020.

(from 46,365 to 51,000), and by approximately 3,230 (6.3 percent) between 2030 and 2040 (from 51,000 to 54,230). The total number of jobs in the San Francisco-Oakland-Hayward CBSA is projected to increase by approximately 168,255 (6.5 percent) between 2020 and 2030 (from 2,588,320 to 2,756,575), and by approximately 174,265 (6.3 percent) between 2030 and 2040 (from 2,756,575 to 2,930,840).

An employed residents-to-household ratio is used to evaluate the match between employed residents and households in a community, also referred to as jobs-housing balance. When the employed residents-to-household ratio is greater than 1.0, it indicates that the community is providing more jobs than it has employed residents; an employed residents-to-household ratio of less than 1.0 indicates that a community has fewer jobs than employed residents. As shown in **Table 4.12-1, p. 4.12-2**, ABAG forecasts that the City will have an employed residents-to-household ratio of between 1.54 and 1.50 from 2020 to 2030, and between 1.50 and 1.46 from 2030 to 2040. The CBSA is projected to have an employed residents-to-household ratio of between 1.43 and 1.40 from 2020 to 2030, and between 1.40 and 1.36 from 2030 to 2040.

#### **4.12.2.2 Project Site**

Existing uses within the project site include office, industrial, warehouse, storage facilities, and transportation and circulation facilities totaling approximately 344,000 square feet and employing approximately 455 people.<sup>7</sup> There are no existing housing units or residents on the project site.

#### **4.12.2.3 Phase 1 Site**

Existing uses within the Phase 1 site include office, industrial, warehouse, storage facilities, and transportation and circulation facilities totaling approximately 236,000 square feet and employing approximately 218 people.<sup>8</sup> There are no existing housing units on the Phase 1 site.

### **4.12.3 Regulatory Framework**

This section provides a summary of the population, housing, and employment plans and policies of federal, state, and local agencies that have policy and regulatory control over the project site. As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno (San Bruno) but would not develop any new structures or new land uses in San Bruno. Because the project would not generate population, housing, or employment growth in San Bruno, this analysis does not evaluate the project's consistency with San Bruno plans and policies related to population, housing, and employment.

#### **4.12.3.1 Federal**

There are no federal regulations regarding population and housing applicable to the project.

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<sup>7</sup> Lane Partners, 2020. Tenant Employee Survey Count.

<sup>8</sup> Ibid.

### 4.12.3.2 State

#### Sustainable Communities Strategy and SB 375/Plan Bay Area

Senate Bill (SB) 375, adopted in 2008, required 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)<sup>9</sup> and ABAG. Plan Bay Area 2040 represents a transportation and land use/housing strategy for how the San Francisco 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 2040, last released in May 2019, provides a series of statistical compendia on demographic, economic, and land use changes in the coming decades.<sup>10</sup> 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 Specific Plan area is outside of but adjacent to two Plan Bay Area PDAs; the Transit Corridors and El Camino Real PDA.<sup>11</sup> The San Bruno Transit Corridors PDA is a 700-acre triangular shaped area that includes several developing commercial corridors: San Mateo Avenue, El Camino Real, San Bruno Avenue, and Huntington Avenue. The area includes the San Bruno BART station, Tanforan shopping mall, and The Crossings development site at its northern end. At its southern end is the San Bruno Caltrain station, which has been relocated to the corner of San Bruno and San Mateo Avenues. The El Camino Real PDA is a multi-city PDA set along a one-quarter-mile buffer along El Camino Real, extending the length of the corridor through downtowns and central business districts in Daly City, Colma, South San Francisco, San Bruno, Millbrae, Burlingame, San Mateo, Belmont, San Carlos, Redwood City, Menlo Park, and unincorporated neighborhoods in San Mateo County.<sup>12</sup>

#### Regional Housing Need Plan for the San Francisco Bay Area: 2015–2023

In the Bay Area, the SCS and Regional Housing Needs Allocation (RHNA) are mutually reinforcing; they were developed together to meet the overlapping objectives of SB 375 and housing element law.<sup>13</sup> The City of South San Francisco's (City's) housing element incorporates the RHNA and discusses the City's allocation of regional housing needs by income, as projected by ABAG. In

<sup>9</sup> MTC is the government agency responsible for regional transportation planning, financing, and coordinating transportation services in the nine-county San Francisco Bay Area.

<sup>10</sup> Association of Bay Area Governments. 2019. *Projections 2040*. May. Available: <https://data.bayareametro.gov/Demography/Projections-2040-by-Jurisdiction/grqz-amra>. Accessed May 13, 2021.

<sup>11</sup> Metropolitan Transportation Commission. 2020. MTC Policy Map Explorer. Available: <https://mtc.maps.arcgis.com/apps/View/index.html?appid=1b8fdd83aa564aa180a59e9b7c4583ca>. Accessed October 27, 2020.

<sup>12</sup> City/County Association of Governments of San Mateo County. 2017. San Mateo County Priority Development Area (PDA) Investment & Growth Strategy. San Mateo County Priority Development Area (PDA) Investment & Growth Strategy. Available: [https://ccag.ca.gov/wp-content/uploads/2014/05/Final-Draft\\_PDA\\_IGS\\_5\\_11\\_17-Meeting.pdf](https://ccag.ca.gov/wp-content/uploads/2014/05/Final-Draft_PDA_IGS_5_11_17-Meeting.pdf). Accessed February 24, 2021.

<sup>13</sup> Each jurisdiction's housing element must include a strategy to meet its share of the region's housing need. Jurisdictions that do not have the capacity to meet the RHNA requirement must rezone sites with appropriate development standards to accommodate the allocation requirement.

addition, SB 375 requires the RHNA to be consistent with the SCS and establishes an eight-year cycle for the RHNA. The 2015–2023 RHNA has been incorporated into Plan Bay Area 2040. The objectives of the RHNA 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. More important, the RHNA includes production targets that address the housing needs of a range of household income categories.

The RHNA determined that the Bay Area must plan for 187,990 additional housing units between 2015 and 2023.<sup>14</sup> South San Francisco's share of the regional housing need for this time period is 1,864 new units, with approximately 1,159 of these units allocated as affordable housing. The City's RHNA requirement represents approximately 1 percent of the total regional allocation and amounts to a citywide housing production goal of approximately 233 units per year. To date during the current RHNA cycle, the City has constructed 1,027 housing units, attaining 55 percent of its RHNA allocation.<sup>15</sup>

The RHNA is currently being updated for forthcoming 2023-2031 planning cycle. The *Draft RHNA Methodology and Final RHNA Subregional Shares* (draft RHNA methodology) was approved by the ABAG Executive Board on January 21, 2021.<sup>16</sup> Appendix 4 of the draft RHNA methodology provides draft jurisdiction allocations for illustrative purposes only. The illustrative draft allocations show a need for 441,176 additional housing units in the Bay Area. South San Francisco's share is 3,956 units, including 1,373 affordable units (low and very low income). Following review of the draft RHNA methodology by the California Department of Housing and Community Development (HCD), ABAG will use the state agency's feedback to develop a final methodology and issue draft allocations. This will be followed by an appeal period before ABAG issues final allocations by the end of 2021. Jurisdictions are required to prepare updated housing elements reflecting the new allocations by January 2023.

### 4.12.3.3 Local

#### South San Francisco General Plan

The 1999 South San Francisco General Plan provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The General Plan has a 20-year horizon, and is currently being updated as part of the *Shape SSF 2040 General Plan*.<sup>17</sup>

<sup>14</sup> Association of Bay Area Governments. 2013. Regional Housing Need Plan—San Francisco Bay Area, 2015–2023. Available: [https://abag.ca.gov/sites/default/files/2015-23\\_rhna\\_plan.pdf](https://abag.ca.gov/sites/default/files/2015-23_rhna_plan.pdf). Accessed: March 9, 2020.

<sup>15</sup> California Housing and Community Development Department, Housing Element Implementation and Annual Progress Report (APR) Data Dashboard. Available: <https://app.powerbigov.us/view?r=eyJrIjoiMDA2YjBmNTItYzYwNS00ZDdiLTNmMGMtYmFhMzc1YTAzMjM4IiwidCI6IjI0DI4NjQ2LWlWmZctNGZlNy04NDE1LWU5MzVjZDM0Y2Y5NiJ9&pageName=ReportSection3da4504e0949a7b7a0b0>. Accessed: September 23, 2021.

<sup>16</sup> Association of Bay Area Governments, Regional Housing Needs Allocation Draft Methodology: San Francisco Bay Area, 2023-2031, February 2021. Available: [https://abag.ca.gov/sites/default/files/documents/2021-02/ABAG\\_Draft\\_RHNA\\_Methodology\\_Report\\_2023-2031.pdf](https://abag.ca.gov/sites/default/files/documents/2021-02/ABAG_Draft_RHNA_Methodology_Report_2023-2031.pdf). Accessed: May 12, 2021.

<sup>17</sup> City of South San Francisco. 2020. Shape SSF 2040 General Plan. Available: <https://shapessf.com/>. Accessed: September 8, 2021.

The General Plan contains a Land Use Element, which provides a framework to guide land use decision making citywide. The Land Use Element forecast that the City would have 69,810 residents and 78,500 employees upon buildout of the General Plan in 2019. The *Shape SSF 2040 General Plan* update that is currently underway will include updated population and employment projections. Nearly all of the Specific Plan area (approximately 26.2 acres) is designated under the City's current General Plan as Office, a designation intended to provide sites for administrative, financial, business, professional, medical, and public offices in locations proximate to BART or Caltrain stations. Residential uses are not permitted under the Office land use designation. The *Shape SSF 2040 General Plan* preferred land use alternative, which will ultimately serve as the basis for the updated *Shape SSF 2040 General Plan* and related Land Use Element, maintains the existing land use designation for the bulk of the Specific Plan area, although it renames the designation from Office to Business and Professional Office.<sup>18</sup> The General Plan also includes the Housing Element 2015–2023, which is the City's primary policy document regarding goals and policies related to housing. Using 2013 population, household, and employment projections from the ABAG, the Housing Element includes a housing needs assessment that identifies 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 South San Francisco. In addition, the Housing Element also identifies sites for housing development that are adequate with respect to accommodating South San Francisco's portion of the RHNA; none of these sites are within the Specific Plan area.

The General Plan also includes a Planning Sub-Areas Element which identifies 14 sub-areas in the City and features policies specific to each sub-area to complement citywide policies included in the Land Use and other elements. The Specific Plan area is located within the Lindenville Planning Sub-Area which, according to the General Plan, is the only large-scale industrial area in the City west of U.S. 101. The area currently includes a range of commercial uses, including small business parks. The *Shape SSF 2040 General Plan* preferred land use alternative forecasts a growth of 4,500 housing units (63 percent) and 15,000 employees (4.6 percent) in the Lindenville Planning Sub-Area.

The project's consistency with applicable General Plan policies included in the Land Use, Housing, and Planning Sub-Areas elements are further evaluated in Section 4.10, *Land Use and Planning*, of this EIR.

## South San Francisco Municipal Code

In August 2018, the South San Francisco City Council adopted Ordinance 1560-2018 establishing affordable housing commercial linkage fees for non-residential development projects to address the effect of increased job opportunities and the need for affordable housing. The commercial linkage fees, codified in Chapter 8.69 of the South San Francisco Municipal Code, are charged on a per-square-foot basis for all net new gross floor area, including all projects where the floor area is increased, with a specific per-square-foot amount set for each commercial land use category. The revenue generated by commercial linkage fees could be used to fund new housing, preserve existing units, or acquire new land for nonprofit developers.

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<sup>18</sup> City of South San Francisco, *Shape SSF Preferred Alternative*. Available: <https://shapessf.com/preferredalternative/>. Accessed: January 4, 2021.

## 4.12.4 Impacts and Mitigation Measures

This section describes the impact analysis related to population and housing for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) potentially significant impacts accompany each impact discussion, when necessary.

### 4.12.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant population and housing impact if it would:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

### 4.12.4.2 Approach to Analysis

This analysis considers whether substantial population and household growth would occur with implementation of the proposed project and whether this growth is within population and housing forecasts for the City and the region, and/or would be considered substantial with respect to remaining growth potential in the City and the region. Two regional geographies are evaluated: the San Francisco-Oakland-Hayward CBSA and the Bay Area. A CBSA is defined by the United States Office of Management and Budget as a multi-county area anchored by an urban center and adjacent counties that are socioeconomically tied to the urban center by commuting; thus, a CBSA represents an appropriate context for evaluating growth from a project located in a regional employment center that is well served by regional transit and highway systems such as South San Francisco. The San Francisco-Oakland-Hayward CBSA consists of Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties. The Bay Area is the nine-county region comprising Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

This analysis uses ABAG's *Projections 2040* to analyze the project's impacts.<sup>19</sup> The project buildout analysis is based on 2030 projections (the project buildout year) and the Phase 1 analysis is based on 2025 projections (the Phase 1 buildout year). Information regarding 2040 projections is presented where applicable for the cumulative analysis. For the purposes of this analysis, projections from the South San Francisco Housing Element Update regarding population, housing, and employment were not used, as they were based on ABAG Projections that have since been revised and updated. Accordingly, the current ABAG projections are used to analyze potential impacts related to population and housing. Although the project proposes off-site circulation and utility improvements in the City of San Bruno, these improvements would not generate employees; therefore, the analysis does not evaluate the project's relationship to City of San Bruno growth projections. However, projected growth within San Bruno is addressed in the context of the San

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<sup>19</sup> Association of Bay Area Governments. 2019. *Projections 2040*. May. Available: <https://data.bayareametro.gov/Demography/Projections-2040-by-Jurisdiction/grqz-amra>. Accessed May 13, 2021.

Francisco-Oakland-Hayward CBSA, which includes Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties.

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 residential 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 employment growth would result in direct physical environmental changes (e.g., through use of resources such as water, electricity, and fossil fuels). These changes are analyzed and disclosed in the various environmental topic sections in this EIR.

The analysis also evaluates indirect impacts related to the proposed project's contribution to population and housing growth. An indirect environmental impact is a change to the physical environment that is not immediately related to a proposed project. Specifically, analysis of 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 resulting, for example, from employee-generated demand. While many of the employees generated by the proposed project would likely be existing residents in the City or region, the analysis conservatively concludes that new employees, employee population, and employee households generated by the project would be new to the area being evaluated (i.e., City, CBSA, or Bay Area). 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) could also 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 areas that are in a developed urban environment and already served by infrastructure such as the project site.

This analysis also includes a discussion of the project's potential effects on jobs-housing balance, which is the ratio of employed residents-to-households that is used to evaluate the match between employed residents and households in a community. Local governments use jobs-housing balance as a planning tool for achieving particular policy outcomes; however, this ratio is not a regulatory tool and changes to the ratio do not necessarily imply or directly correlate with a physical change in the environment or relate to any recognized threshold of significance under CEQA. The City has not adopted policies or CEQA thresholds related to this issue. Thus, the discussion provided in this section is provided for informational purposes only.

### **Buildout Scenario Studied (Office Scenario)**

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyzes the buildout scenario that represents the "worst-case" scenario for the resources 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). Because there are no residential units proposed as part of the project, only indirect population and housing growth is considered in this analysis. Of the two scenarios, the Office Scenario would construct the largest amount of square footage and would have a higher employment density, and as such, would generate the greatest number of new employees and related indirect population and housing growth. Therefore, the Office Scenario is evaluated in this Population and Housing analysis. **Table 4.12-2, p. 4.12-10**, shows the projected increase in employees, residents, and households for the Office Scenario. Project construction is anticipated to occur over approximately 10 years, with full buildout anticipated in 2030.

As shown in **Table 4.12-2, p. 4.12-10**, the Office Scenario is anticipated to generate approximately 10,745 net new employees through the construction of new office and amenity space, based on a generation rate of one employee per 250 square feet of development. The U.S. Census Bureau Longitudinal Employer-Household Dynamics reported that 7.8 percent of residents within the City of South San Francisco work in their place of residence. Applying this ratio, the Office Scenario would result in 838 new project employees residing in the City of South San Francisco. ABAG's projected Employed Residents-to-Household Ratio for the City of South San Francisco in 2030 (the project buildout year) is 1.50 employed residents per household; therefore, the Office Scenario would result in an estimated 559 new households in South San Francisco. Based on the projected South San Francisco average household size 3.05 persons per household in 2030, these new households would equate to approximately 1,705 people in the City of South San Francisco.

The remaining approximately 9,907 employees are presumed to reside outside of South San Francisco. For purposes of this analysis, these residents are assumed to be in the CBSA. ABAG's projected Employed Residents-to-Household Ratio for San Francisco-Oakland-Hayward CBSA (Alameda, Contra Costa, Marin, San Francisco and San Mateo counties) in 2030 (the project buildout year) is 1.40 employed residents per household; therefore, the project would result in approximately 7,096 households outside the City and would equate to approximately 18,733 people outside the City of South San Francisco (i.e., in the CBSA).

**Table 4.12-2. Employment, Household, and Population Generation — Office Scenario**

Land Use	Unit	Generation Rate	Projected Employees/ Residents/Households
<b>Employees</b>			
Office and Amenities	2,800,000 sf	250 sf/employee <sup>a</sup>	11,200 employees - 455 existing employees <sup>a</sup>
<b>Total New Employees</b>	—	—	<b>10,745 employees</b>
<b>Employee Households</b>			
Employees living in South San Francisco	10,745 employees 838 employed residents	7.8% <sup>b</sup> 1.50 employed residents/household <sup>c</sup>	838 employees/ 559 households
Employees living outside South San Francisco	10,745 employees 9,907 employed residents	92.2% <sup>b</sup> 1.40 employed residents/household <sup>c</sup>	9,907 employees/ 7,096 households
<b>Total New Households</b>	—	—	<b>7,655 households</b>

Land Use	Unit	Generation Rate	Projected Employees/ Residents/Households
<b>Household Population</b>			
Employee households in South San Francisco	559 households	3.05 persons/household <sup>d</sup>	1,705 people
Employee households outside South San Francisco	7,096 households	2.64 persons/household <sup>d</sup>	18,733 people
<b>Total New Household Population</b>	—	—	<b>20,438 people</b>

Note: Sums may not total because of rounding.

- <sup>a</sup> Estimate of existing employees and project employment generation rate provided by Project applicant (Lane Partners, 2020). The rate of 1 employee per 250 square feet for office uses is also applied to the 88,200 square feet of proposed amenity uses to provide a conservative analysis. Based on the San Mateo County Linkage Fee Nexus Study, restaurant and service uses typically have half of the employee density of office uses. Accordingly, the Transportation Impact Analysis (TIA) in **Appendix 4.15-1** of this EIR uses a rate of 1 employee for 1,000 square feet for the amenity uses, resulting in a total employment estimate of approximately 10,480 employees (10,935 – 455). The lower estimate presented in the TIA is likely more accurate; however, for purposes of providing a conservative population and housing impact assessment, the higher estimate is used here.
- <sup>b</sup> U.S. Census Longitudinal Employer-Household Dynamics – South San Francisco. Home Destination Report: Where Workers Live who are Employed in the Selection Area (Primary Job Holders).
- <sup>c</sup> Refer to **Table 4.12-1, p. 4.12-2** (1.5 employed residents per household in South San Francisco and 1.4 employed residents per household in the CBSA in 2030).
- <sup>d</sup> Refer to **Table 4.1-1, p. 4.12-2** (3.05 persons per household in South San Francisco and 2.64 persons per household in the CBSA in 2030).

As shown in **Table 4.12-3, p. 4.12-12**, Phase 1 is anticipated to generate approximately 2,349 net new employees through the construction of new office space and amenity use. The U.S. Census Bureau Longitudinal Employer-Household Dynamics reported that 7.8 percent of residents within the City of South San Francisco work in their place of residence. Applying this ratio, Phase 1 would result in 183 new project employees residing in the City of South San Francisco (7.8 percent of 2,349 employees). ABAG's projected Employed Residents-to-Household Ratio for the City of South San Francisco in 2025 (the Phase 1 buildout year) is 1.52 employed residents per household; therefore, Phase 1 would result in an estimated 120 new households in South San Francisco. Based on the projected South San Francisco average household size, 3.05 persons per household in 2025, these new households would equate to approximately 336 people in the City of South San Francisco.

The remaining 2,165 employees are presumed to reside outside of South San Francisco. For purposes of this analysis, these residents are assumed to be in the CBSA. ABAG's projected Employed Residents-to-Household Ratio for San Francisco-Oakland-Hayward CBSA (Alameda, Contra Costa, Marin, San Francisco and San Mateo counties) in 2025 (the Phase 1 buildout year) is 1.41 employed residents per household; therefore, Phase 1 would result in 1,531 households outside the City and would equate to approximately 4,027 people outside the City of South San Francisco (i.e., in the CBSA).

**Table 4.12-3. Employment, Household, and Population Generation —Phase 1**

Land Use	Unit	Generation Rate	Projected Employees/ Residents/Households
<b>Employees</b>			
Office and Amenities	700,915 sf	250 sf/employee <sup>a</sup>	2,804 employees - 455 existing employees <sup>a</sup>
<b>Total New Employees</b>	—	—	<b>2,349 employees</b>
<b>Employee Households</b>			
Employees living in South San Francisco	2,349 employees 183 employed residents	7.8% <sup>b</sup> 1.52 employed residents/household <sup>c</sup>	183 employed residents 120 households
Employees living outside South San Francisco	2,349 employees 2,165 employed residents	92.2% <sup>b</sup> 1.41 employed residents/household <sup>c</sup>	2,165 employed residents 1,531 households
<b>Total New Households</b>	—	—	<b>1,651 households</b>
<b>Household Population</b>			
Employee households in South San Francisco	120 households	3.05 persons/household <sup>d</sup>	366 people
Employee households outside South San Francisco	1,531 households	2.63 persons/household <sup>d</sup>	4,027 people
<b>Total New Household Population</b>	—	—	<b>4,393 people</b>

Note: Sums may not total because of rounding.

<sup>a</sup> Estimate of existing employees and project employment generation rate provided by Project applicant (Lane Partners, 2020). The rate of 1 employee per 250 square feet for office uses is also applied to the 88,200 square feet of proposed amenity uses to provide a conservative analysis. Based on the San Mateo County Linkage Fee Nexus Study, restaurant and service uses typically have half of the employee density of office uses. Accordingly, the Transportation Impact Analysis (TIA) in **Appendix 4.15-1** of this EIR uses a rate of 1 employee for 1,000 square feet for the amenity uses, resulting in a total employment estimate of approximately 10,480 employees (10,935 – 455). The lower estimate presented in the TIA is likely more accurate; however, for purposes of providing a conservation population and housing impact assessment, the higher estimate is used here.

<sup>b</sup> U.S. Census Longitudinal Employer-Household Dynamics – South San Francisco. Home Destination Report: Where Workers Live who are Employed in the Selection Area (Primary Job Holders).

<sup>c</sup> Refer to **Table 4.12-1, p. 4.12-2** (1.52 employed residents per household in South San Francisco and 1.41 employed residents per household in the CBSA in 2025).

<sup>d</sup> Refer to **Table 4.1-1, p. 4.12-2** (3.05 persons per household in South San Francisco and 2.63 persons per household in the CBSA in 2025).

#### 4.12.4.3 Impacts Not Evaluated in Detail

**Displacement of Housing (Project, including Phase 1).** There are no housing units located on the project site; therefore, implementation of the project and the Phase 1 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.

#### 4.12.4.4 Impact Evaluation

**Impact PH-1: The project would not induce substantial unplanned population growth in an area, either directly or indirectly. (*Project: Less than Significant; Phase 1: 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 Office Scenario is used for analysis in the City because it would generate the greatest number of indirect new residents inside and outside the City.

This impact analyzes the project's individual impact relative to planned population growth. The project's contribution to potential cumulative impacts related to population growth is assessed separately in Section 4.12.4.5, p. 4.12-20.

##### Project

###### Construction

As discussed in Chapter 3, *Project Description*, project construction is anticipated to occur over approximately 10 years, with full buildout anticipated in 2030. The number of construction workers on the project site would vary, ranging from approximately 40 to 550 on any given day, depending on the stage of construction. 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 the city, 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, which may or may not be within the City. 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***. No mitigation measures are required.

###### 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 4.12.4.2, p. 4.12-8, this analysis compares the direct employment and indirect population and household growth generated under the 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 and would not include the construction of any housing units; therefore, implementation of the project would not generate direct residential population or housing growth.

###### ***Indirect Employee-Generated Population and Housing Growth***

**Table 4.12-4, p. 4.12-8**, compares the estimated employee, household, and household population generation for the Office Scenario to current ABAG projections for the City of South San Francisco, the CBSA, and the Bay Area.

*City of South San Francisco Population and Housing Growth*

The project, under the Office Scenario, would construct approximately 2,800,000 square feet of new office uses and related amenity space. As shown in **Table 4.12-4, p. 4.12-8**, based on a rate of 250 square feet per employee, the Office Scenario is expected to generate approximately 10,745 net new employees, 838 of whom would reside in the City of South San Francisco. As such, the proposed project's employment under the Office Scenario would generate approximately 559 households in the City when accounting for the household populations of project employees. According to ABAG's *Projections 2040*, households in South San Francisco are projected to increase by approximately 2,795 between 2020 and 2030. Therefore, the addition of 559 new households in the City resulting from employment under the Office Scenario would account for approximately 20 percent of the household growth expected in the City from 2020 to 2030.

**Table 4.12-4. Employment, Household, and Population Generation Compared to Planned Growth — Project Office Scenario**

	Office Scenario <sup>a</sup>	ABAG Projected Increase (2020 – 2030) <sup>b</sup>	Percent of Projected Increase
<b>South San Francisco</b>			
<b>Employment</b>			
Employees generated in South San Francisco (direct)	10,745	4,635	231.8 ( <b>Exceeds</b> )
<b>Households</b>			
Employee households in South San Francisco (indirect)	559	2,795	20.0 (Within)
<b>Household Population</b>			
Household population in South San Francisco (indirect)	1,705	8,765	19.5 (Within)
<b>San Francisco-Oakland-Hayward Core-Based Statistical Area (CBSA)<sup>c</sup></b>			
<b>Employment</b>			
Employees generated in CBSA (direct)	10,745	168,255	6.4 (Within)
<b>Households</b>			
Employee households in CBSA (indirect)	7,655	144,500	5.3 (Within)
<b>Household Population</b>			
Household population in CBSA (indirect)	20,438	415,035	4.9 (Within)
<b>Bay Area<sup>d</sup></b>			
<b>Employment</b>			
Employees generated in CBSA (direct)	10,745	268,935	4.0 (Within)
<b>Households</b>			
Employee households in CBSA (indirect)	7,655	260,050	2.9 (Within)
<b>Household Population</b>			
Household population in CBSA (indirect)	20,438	750,705	2.7 (Within)

<sup>a</sup> Refer to Table 4.12-2, p. 4.12-10.

<sup>b</sup> Source: Association of Bay Area Governments. 2019. *Projections 2040*. May.

<sup>c</sup> A core-based statistical area (CBSA) is defined by the United States Office of Management and Budget as a multi-county area anchored by an urban center and adjacent counties that are socioeconomically tied to the urban center by commuting. The San Francisco-Oakland-Hayward CBSA consists of Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties.

<sup>d</sup> Includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

As shown in **Table 4.12-4, p. 4.12-14**, the 559 new households would be expected to indirectly generate approximately 1,705 residents within South San Francisco. According to ABAG's *Projections 2040*, the population in South San Francisco is projected to increase by approximately 8,765 between 2020 and 2030. Therefore, the addition of 1,705 new people in the City resulting from new employee households under the Office Scenario would account for approximately 19.5 percent of the population growth expected in the City from 2020 to 2030.

While proposed project employees would indirectly generate additional residential population and households within the City, based on ABAG projections for household and population growth in the City, population and housing growth resulting from the proposed project would be within the range of anticipated growth for the City.

#### *Regional Population and Housing Growth*

As shown in **Table 4.12-4, p. 4.12-14**, the project's 10,745 net new employees would generate approximately 7,655 households in the CBSA when accounting for the household populations of project employees. According to ABAG's *Projections 2040*, between 2020 and 2030, households in the CBSA are projected to increase by approximately 144,500 and households in the Bay Area are projected to increase by approximately 260,050. Therefore, the addition of 7,655 new households in the CBSA resulting from employment under the Office Scenario would account for approximately 5.3 percent of the household growth expected in the CBSA and approximately 2.9 percent of the household growth expected in the Bay Area from 2020 to 2030.

As shown in **Table 4.12-4, p. 4.12-14**, the 7,655 new households in the CBSA would be expected to indirectly generate approximately 20,438 residents within the CBSA. According to ABAG's *Projections 2040*, between 2020 and 2030, the population in the CBSA is projected to increase by approximately 415,035 and the population of the Bay Area is projected to increase by approximately 750,705. Therefore, the addition of 20,438 new people in the CBSA resulting from new employee households under the Office Scenario would account for approximately 4.9 percent of the population growth expected in the CBSA and approximately 2.7 percent of the population growth expected in the Bay Area from 2020 to 2030.

While proposed project employees would indirectly generate additional residential population and households within the CBSA, based on ABAG projections for household and population growth in the CBSA and Bay Area, population and housing growth resulting from the proposed project would be within the range of anticipated growth for the CBSA and Bay Area.

#### *Employment Growth*

As shown in **Table 4.12-4, p. 4.12-14**, ABAG forecasts that between 2020 and 2030, the number of employees working in South San Francisco will increase by 4,635, the number of employees working in the CBSA will increase by 168,255, and the number of employees working in the Bay Area will increase by 268,935. Upon full buildout, the project would generate up to approximately 10,745 employees under the Office Scenario, which substantially exceeds ABAG's employment growth projection for the City (231.8 percent) but is well within the employment growth projected for the CBSA (6.4 percent) and the Bay Area (4.0 percent).

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 on the environment. 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 EIR. These include impacts related to vehicle travel (including attendant air quality and noise impacts) and increased demand for public services and utilities. Refer to Section 4.2, *Air Quality*; Section 4.7, *Greenhouse Gas Emissions*; Section 4.10, *Land Use and Planning*; Section 4.11, *Noise and Vibration*; Section 4.13, *Public Services*; Section 4.15, *Transportation and Circulation*; and Section 4.17, *Utilities and Service Systems*. These sections evaluate whether activities associated with the project's operations, which include employee activity, would cause significant impacts on the environment.

#### *Jobs-Housing Balance*

As described in Section 4.12.2, **p. 4.12-10**, the total number of employed residents and the total number of households in a community make up that community's employed residents-to-household ratio, also referred to as jobs-housing balance. Local governments may use the jobs-housing balance as a planning tool for achieving particular policy outcomes; however, it is not a regulatory tool and does not necessarily imply a physical change in the environment or relate to any recognized threshold of significance under CEQA. Therefore, the project's impacts on jobs-housing balance are discussed below for informational purposes only.

As shown in **Table 4.12-2, p. 4.12-10**, ABAG forecasts that the City will have an employed residents-to-household ratio of between 1.54 and 1.50 from 2020 to 2030, and between 1.50 and 1.46 from 2030 to 2040. The CBSA is projected to have an employed residents-to-household ratio of between 1.43 and 1.40 from 2020 to 2030, and between 1.40 and 1.36 from 2030 to 2040. This means that South San Francisco is a job center that imports employees from surrounding communities or, alternatively, that exports housing, and a high level of in-commuting. The City acknowledges that much of its land area is not well suited for housing development due to existing land use conflicts (e.g., proximity to SFO, the historic and existing industrial uses of the East of 101 Area, and emerging office and R&D uses in the area).<sup>20</sup>

Housing availability, already projected to be out of balance in the City, would decrease with project buildout because the proposed project would result in net new employees and no increase in housing units. Therefore, the proposed project would result in an increased unfavorable jobs-housing ratio in the City. However, continued job growth in the City will promote a greater regional balance between jobs and housing. In addition, the City has several residential and mixed-use projects that are either under construction or in the development pipeline, which would add to the City's housing supply and promote a greater regional balance between jobs and housing (refer to Table 4.1-2 in Section 4.1, *Approach to Environmental Analysis*). The City in general, and the Specific Plan area in particular, is well served by all modes of public transit, including shuttles, buses, and rail. Therefore, additional potential future employees would have access to a variety of transportation options for reaching the project site from throughout the Bay Area.

The City does not have an adopted jobs-housing ratio goal that would be applicable to the project. Nonetheless, the City adopted the Affordable Housing Commercial Linkage Fee, codified in Chapter 8.69 of the South San Francisco Municipal Code, that established impact fees for non-residential development projects in order to address the demand for affordable housing that is created by new commercial development and mitigate impacts that accompany new commercial development by

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<sup>20</sup> South San Francisco General Plan, Chapter 3, Policy 3.5-I-3, p. 3-45.

protecting the economic diversity of the City's housing stock; reducing traffic, transit and related air quality impacts; promoting jobs/housing balance; and reducing the demands placed on transportation infrastructure in the region. The project would be required to pay the Affordable Housing Commercial Linkage Fee, which would contribute to the development of affordable housing in other locations within the City.

### ***Indirect Infrastructure-Generated Population and Housing Growth***

As discussed in Section 4.17, *Utilities and Service Systems*, infrastructure improvements required to serve the project would involve the relocation, construction, or expansion of numerous utility facilities within both South San Francisco and San Bruno. This includes the construction of a new public arterial roadway – Southline Avenue – which would be constructed between Huntington and South Linden Avenues as part of Phase 1. However, this new roadway would function as a connection between two existing roads in an urbanized setting, and is envisioned by the General Plan, and therefore would not induce unplanned population growth. Additionally, the project constitutes infill development within an already existing urban environment, and the other required infrastructure improvements would consist of localized improvements intended to serve project-related demand. Therefore, 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's proposed infrastructure improvements would not generate substantial unplanned population growth in the City or region.

### ***Conclusion***

The proposed project would not directly generate new population or households. Population and housing growth indirectly generated by project employees would be within ABAG's forecasted growth for the City, the CBSA, and the Bay Area. The project's proposed infrastructure improvements would not generate substantial unplanned population growth. Therefore, operational population and housing impacts associated with the project would be ***less than significant***. No mitigation measures are required.

## **Phase 1**

### **Construction**

As discussed in Chapter 3, *Project Description*, construction of Phase 1 is expected to commence in Q1 2022 and end in Q3 2024, lasting approximately 30 months. 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. For the reasons discussed above in the context of the project's impacts, construction of Phase 1 would not generate substantial unplanned population growth in the city or region. Construction-related population and housing impacts associated with Phase 1 would be ***less than significant***. No mitigation measures are required.

### **Operation**

#### ***Direct Population and Housing Growth***

Phase 1 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**

**Table 4.12-5, p. 4.12-18**, compares the estimated employee, household, and household population generation for Phase 1 to current ABAG projections for the City of South San Francisco, the CBSA, and the Bay Area.

**Table 4.12-5. Employment, Household, and Population Generation Compared to Planned Growth — Phase 1**

	Phase 1 <sup>a</sup>	ABAG Projected Increase (2020 – 2025) <sup>b</sup>	Percent of Projected Increase
<b>South San Francisco</b>			
<b>Employment</b>			
Employees generated in South San Francisco (direct)	2,349	3,710	63.3 (Within)
<b>Households</b>			
Employee households in South San Francisco (indirect)	120	895	13.4 (Within)
<b>Household Population</b>			
Household population in South San Francisco (indirect)	366	2,935	12.5 (Within)
<b>San Francisco-Oakland-Hayward Core-Based Statistical Area (CBSA)<sup>c</sup></b>			
<b>Employment</b>			
Employees generated in CBSA (direct)	2,349	83,245	2.8 (Within)
<b>Households</b>			
Employee households in CBSA (indirect)	1,651	69,085	2.4 (Within)
<b>Household Population</b>			
Household population in CBSA (indirect)	4,393	193,090	2.3 (Within)
<b>Bay Area<sup>d</sup></b>			
<b>Employment</b>			
Employees generated in CBSA (direct)	2,349	131,570	1.8 (Within)
<b>Households</b>			
Employee households in CBSA (indirect)	1,651	127,090	1.3 (Within)
<b>Household Population</b>			
Household population in CBSA (indirect)	4,393	355,100	1.2 (Within)

<sup>a</sup> Refer to **Table 4.12-3, p. 4.12-12**.

<sup>b</sup> Source: Association of Bay Area Governments. 2019. *Projections 2040*. May.

<sup>c</sup> A core-based statistical area (CBSA) is defined by the United States Office of Management and Budget as a multi-county area anchored by an urban center and adjacent counties that are socioeconomically tied to the urban center by commuting. The San Francisco-Oakland-Hayward CBSA consists of Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties.

<sup>d</sup> Includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

**City of South San Francisco Population and Housing Growth**

Phase 1 would construct approximately 700,915 square feet of new office uses and related amenity space. As shown in **Table 4.12-5, p. 4.12-18**, based on a rate of 250 square feet per employee, Phase 1 is expected to generate approximately 2,349 net new employees, 183 of whom would reside in the City of South San Francisco. As such, Phase 1's employment would generate

approximately 120 households in the City when accounting for the household populations of Phase 1 employees. According to ABAG's *Projections 2040*, households in South San Francisco are projected to increase by approximately 895 between 2020 and 2025. Therefore, the addition of 120 new households in the City resulting from employment under Phase 1 would account for approximately 13.4 percent of the household growth expected in the City from 2020 to 2025.

As shown in **Table 4.12-5, p. 4.12-18**, the 120 new households would be expected to indirectly generate approximately 366 residents within South San Francisco. According to ABAG's *Projections 2040*, the population in South San Francisco is projected to increase by approximately 2,935 between 2020 and 2025. Therefore, the addition of 366 new people in the City resulting from new employee households under Phase 1 would account for approximately 12.5 percent of the population growth expected in the City from 2020 to 2025.

While Phase 1 employees would indirectly generate additional residential population and households within the City, based on ABAG projections for household and population growth in the City, population and housing growth resulting from Phase 1 would be within the range of anticipated growth for the City.

#### *Regional Population and Housing Growth*

As shown in **Table 4.12-5, p. 4.12-18**, Phase 1's 2,349 net new employees would generate approximately 1,651 households in the CBSA when accounting for the household populations of Phase 1 employees. According to ABAG's *Projections 2040*, between 2020 and 2025, households in the CBSA are projected to increase by approximately 69,085 and households in the Bay Area are projected to increase by approximately 127,090. Therefore, the addition of 1,651 new households in the CBSA resulting from employment under Phase 1 would account for approximately 2.4 percent of the household growth expected in the CBSA and approximately 1.3 percent of the household growth expected in the Bay Area from 2020 to 2025.

As shown in **Table 4.12-5, p. 4.12-18**, the 1,651 new households in the CBSA would be expected to indirectly generate approximately 4,393 residents within the CBSA. According to ABAG's *Projections 2040*, between 2020 and 2025, the population in the CBSA is projected to increase by approximately 193,090 and the population of the Bay Area is projected to increase by approximately 355,100. Therefore, the addition of 4,393 new people in the CBSA resulting from new employee households under Phase 1 would account for approximately 2.3 percent of the population growth expected in the CBSA and approximately 1.2 percent of the population growth expected in the Bay Area from 2020 to 2025.

While Phase 1 employees would indirectly generate additional residential population and households within the CBSA, based on ABAG projections for household and population growth in the CBSA and Bay Area, population and housing growth resulting from Phase 1 would be within the range of anticipated growth for the CBSA and Bay Area.

#### *Employment Growth*

As shown in **Table 4.12-5, p. 4.12-18**, ABAG forecasts that between 2020 and 2025, the number of employees working in South San Francisco will increase by 3,710, the number of employees working in the CBSA will increase by 83,245, and the number of employees working in the Bay Area will increase by 131,570. Upon full buildout, Phase 1 would generate up to approximately 2,349 net new

employees, which would be within ABAG's employment growth projections for the City (63.3 percent), the CBSA (2.8 percent), and the Bay Area (1.8 percent).

#### *Jobs-Housing Balance*

The Phase 1 development is a component of the overall project. Refer to the project analysis above for a discussion of jobs-housing balance.

#### ***Indirect Infrastructure-Generated Population and Housing Growth***

For the reasons stated above in the project analysis, the improvements proposed as part of Phase 1 would not extend infrastructure into other unserved or underserved areas and, as such, would not indirectly generate population growth. Therefore, operation of Phase 1's proposed infrastructure improvements would not generate substantial unplanned population growth in the city or region.

#### ***Conclusion***

Phase 1 would not directly generate new population or households. Population and housing growth indirectly generated by Phase 1 employees would be within ABAG's forecasted growth for the City, the CBSA, and the Bay Area. The proposed infrastructure improvements under Phase 1 would not generate substantial unplanned population growth. Therefore, operational population and housing impacts associated with Phase 1 would be ***less than significant***. No mitigation measures are required.

### **4.12.4.5 Cumulative Impacts**

Implementation of the proposed project would not displace existing housing units or people, and no replacement housing would be needed. Therefore, the proposed project would not have the potential to contribute to cumulative impacts with regard to displacement of existing people or housing.

As previously discussed, *Plan Bay Area 2040* is the current Regional Transportation Plan and Sustainable Communities Strategy adopted by the Metropolitan Transportation Commission and ABAG in July 2017, in compliance with California's governing greenhouse gas reduction legislation, SB 375. *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.

The cumulative geographic context for impacts related to population and housing is the San Francisco-Oakland-Hayward CBSA, which comprises Alameda, Contra Costa, Marin, San Francisco and San Mateo counties. Given the size of the CBSA, it is beyond the scope of this EIR to identify every cumulative project within its boundaries. However, it is reasonable to assume that other cumulative projects would be similar to the past, present, and reasonably foreseeable future projects envisioned by *Plan Bay Area 2040* and reflected in *Projections 2040*. Therefore, this cumulative analysis evaluates the project's contribution to anticipated cumulative growth and determines whether that contribution is cumulatively considerable. The impact analysis is based on the project's share of cumulative growth between 2020 and 2030 (the project buildout year); however, for informational purposes, recognizing that some cumulative projects may be built out after 2030, cumulative growth between 2030 and 2040 is also presented. Since Phase 1 is a component of the project, the cumulative analysis for the project also serves as the cumulative analysis for the Phase 1.

**Impact C-PH-1: The Project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on planned population and housing growth. (*Less than Cumulatively Considerable*)**

According to ABAG's *Projections 2040*, employment growth in the CBSA will increase by 168,255 between 2020 and 2030, and by 342,520 between 2020 and 2040. Therefore, as shown in **Table 4.12-6, p. 4.12-21**, the project's contribution of approximately 10,745 employees would constitute approximately 6.4 percent of planned growth for 2020-2030, and approximately 3.1 percent of planned growth for 2020-2040. Households within the CBSA will increase by approximately 144,500 between 2020 and 2030, and by 307,205 between 2020 and 2040. Therefore, the project's 7,655 new households would account for approximately 5.3 percent of the household growth projected for the CBSA between 2020 and 2030, and 2.5 percent of the household growth projected for the CBSA between 2020 and 2040. Household population within the CBSA will increase by approximately 415,035 between 2020 and 2030, and 962,080 between 2020 and 2040. Therefore, the project's employment-related household population growth of 20,438 people would account for approximately 4.9 percent of the household population growth projected for the CBSA between 2020 and 2030, and 2.1 percent of the household population growth projected for the CBSA between 2020 and 2040.

**Table 4.12-6. Project (Office Scenario) Share of Planned Cumulative Employment, Household, and Population Growth in the San Francisco-Oakland-Hayward Core-Based Statistical Area (CBSA)<sup>a</sup>**

	2020-2030	2020-2040
<b>Employment</b>		
CBSA Planned Growth	168,255	342,520
<i>Project</i>	10,745	10,745
Project Share of CBSA Planned Growth	6.4%	3.1%
<b>Households</b>		
CBSA Planned Growth	144,500	307,205
<i>Project</i>	7,655	7,655
Project Share of CBSA Planned Growth	5.3%	2.5%
<b>Household Population</b>		
CBSA Planned Growth	415,035	962,080
<i>Project</i>	20,438	20,438
Project Share of CBSA Planned Growth	4.9%	2.1%

<sup>a</sup> A core-based statistical area (CBSA) is defined by the United States Office of Management and Budget as a multi-county area anchored by an urban center and adjacent counties that are socioeconomically tied to the urban center by commuting. The San Francisco-Oakland-Hayward CBSA consists of Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties.

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May.

Looking beyond the CBSA at the greater Bay Area is also informative to the project's cumulative impact assessment. According to ABAG's *Projections 2040*, employment growth in the Bay Area will increase by 268,935 between 2020 and 2030, and by 562,185 between 2020 and 2040. Therefore, as shown in **Table 4.12-7, p. 4.12-22**, the project's contribution of approximately 10,745 employees would constitute approximately 4.0 percent of planned growth for 2020-2030, and 1.2 percent of planned growth for 2020-2040. Households within the Bay Area will increase by approximately

260,050 between 2020 and 2030, and by 544,735 between 2020 and 2040. Therefore, the project's approximately 7,655 new households would account for approximately 2.9 percent of the household growth projected for the Bay Area between 2020 and 2030, and 1.4 percent of the household growth projected for the Bay Area between 2020 and 2040. Household population within the Bay Area will increase by approximately 750,705 between 2020 and 2030, and by 1,692,835 between 2020 and 2040. Therefore, the project's employment-related household population growth of approximately 20,438 people would account for approximately 2.7 percent of the household population growth projected for the Bay Area between 2020 and 2030, and 1.2 percent of the household population growth projected for the Bay Area between 2020 and 2040.

**Table 4.12-7. Project (Office Scenario) Share of Planned Cumulative Employment, Household, and Population Growth in the Bay Area<sup>a</sup>**

	2020-2030	2020-2040
<b>Employment</b>		
Bay Area Planned Growth	268,935	562,185
<i>Project</i>	10,745	10,745
Project Share of Bay Area Planned Growth	4.0%	1.9%
<b>Households</b>		
Bay Area Planned Growth	260,050	544,735
<i>Project</i>	7,655	7,655
Project Share of Bay Area Planned Growth	2.9%	1.4%
<b>Household Population</b>		
Bay Area Planned Growth	750,705	1,692,835
<i>Project</i>	20,438	20,438
Project Share of Bay Area Planned Growth	2.7%	1.2%

<sup>a</sup> Includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

Source: Association of Bay Area Governments. 2019. *Projections 2040*. May.

**Conclusion.** The project's contribution of planned cumulative employment, household, and population growth in the CBSA from 2020 to 2030 would range from 4.9 to 6.4 percent (or 2.1 to 3.1 percent when looking at 2020-2040 growth). In the Bay Area, the project's contribution to 2020-2030 cumulative growth would be 2.7 to 4.0 percent (or 1.2 to 1.9 percent when looking at 2020-2040 growth). In all cases, the project represents less than 7 percent of planned cumulative growth. As noted above, given the size of the CBSA, it is beyond the scope of this EIR to identify every cumulative project within its boundaries to determine whether a cumulative impact would occur (i.e., whether the project combined with other cumulative projects would exceed ABAG's growth forecasts). However, it is reasonable to assume that other cumulative projects would be similar to the past, present, and reasonably foreseeable future projects incorporated within *Plan Bay Area 2040* and reflected in *Projections 2040*. As discussed previously, the Specific Plan Area is adjacent to the San Bruno Transit Corridors PDA, which is formed around the San Bruno BART and Caltrain stations. The project would locate new employment opportunities in South San Francisco, an existing regional employment center, immediately adjacent to public transit, consistent with numerous regional and local plans and policy directives that promote high-density, infill development near transit (refer to Section 4.10, *Land Use and Planning*, of this EIR). Given the consistency with planned growth in the CBSA, the project's cumulative population and housing impacts would be ***less than cumulatively considerable***.

## 4.13 Public Services

### 4.13.1 Introduction

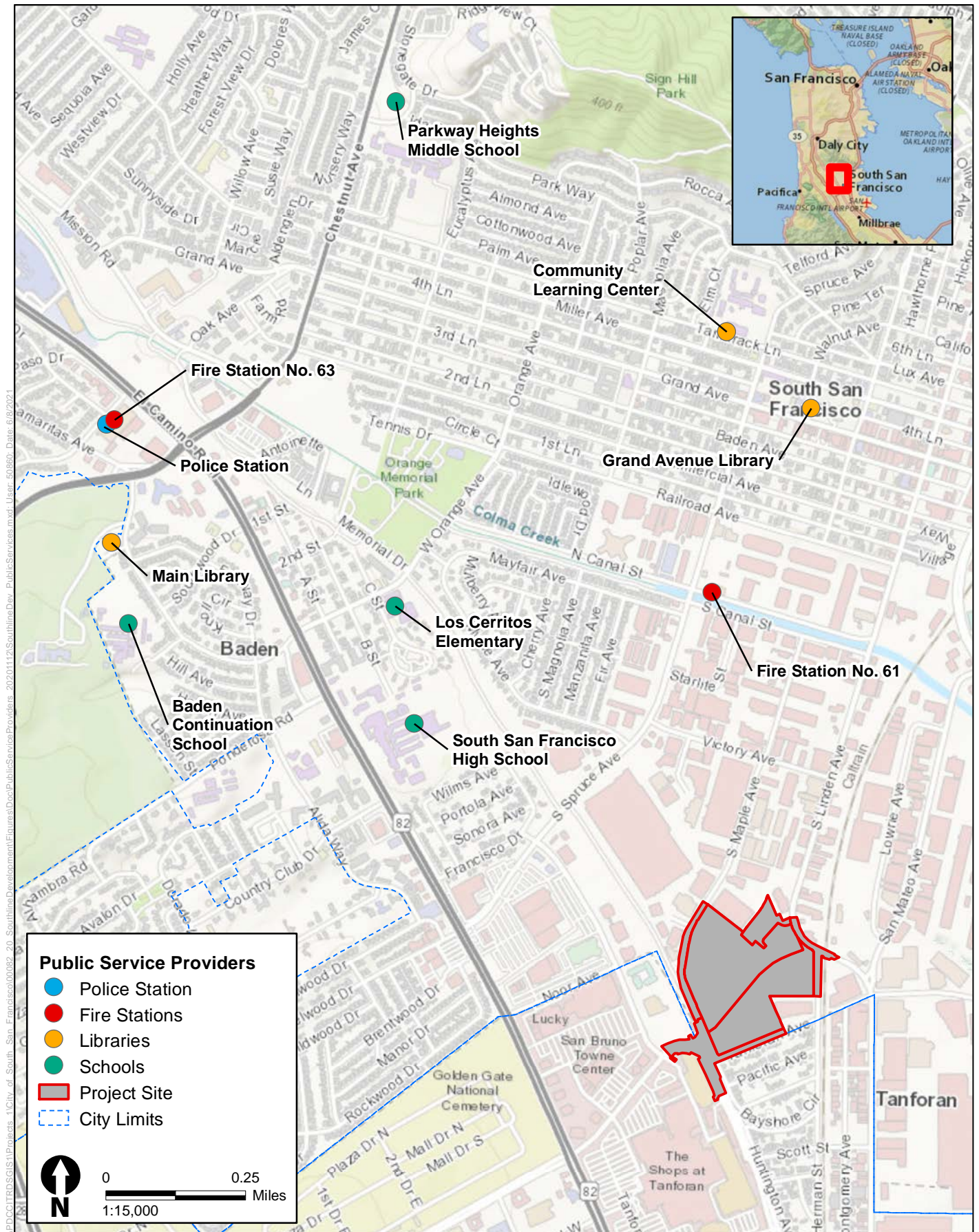
This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on public services. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described.

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. No questions or concerns related to public services were raised in response to the NOP.

### 4.13.2 Environmental Setting

This section describes the public service providers that serve the Specific Plan area. The locations of the fire stations, police stations, libraries, and schools that serve the Specific Plan area are shown in **Figure 4.13-1, p. 4.13-2**.

As described in Chapter 3, *Project Description*, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno, but would not include the development of any new structures or land uses within San Bruno. These improvements include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. Because the off-site improvements within the City of San Bruno's jurisdiction do not include any land uses that would be served by San Bruno fire stations, police stations, libraries, and schools, the proposed project would not impact San Bruno's public service providers; therefore, this section does not include an analysis of San Bruno's public service providers.



**Figure 4.13-1**  
**South San Francisco Public Service Providers**

### 4.13.2.2 Fire Protection Services

This section provides a discussion of the existing conditions related to fire protection services, resources, and response times in South San Francisco and the Specific Plan area, inclusive of the Phase 1 site.

#### City of South San Francisco Fire Department

The South San Francisco Fire Department (SSFFD or Fire Department) provides fire suppression and emergency medical service in the City, including the Specific Plan area.

#### *Staffing and Facilities*

The Fire Department includes 87 full-time-equivalent employees, and 6.93 hourly and contract employees for operations that include fire prevention, emergency medical services, and administrative work. Approximately 24 fire suppression personnel are assigned to three separate shifts, with a minimum of 20 fire suppression personnel on duty every day.<sup>1</sup> The Fire Department consists of the fire chief, administration division, fire prevention division, and emergency medical services/operations division.

According to recent California Department of Finance data, the City of South San Francisco has a population of 67,879 (as of January 1, 2020).<sup>2</sup> The Association of Bay Area Governments (ABAG) estimates that South San Francisco's household population will increase by approximately 8,765 from 2020 to 2030, from 67,435 people to 76,200 people.<sup>34</sup> Employees in South San Francisco are projected to increase by approximately 4,635 from 2020 to 2030, from 46,365 people to 51,000 people. The Fire Department considers a project's service population to include the total residential population and a portion of the total employment population. Specifically, the Fire Department estimates that its current existing service population is approximately 100,000 people during business hours, which corresponds to 100 percent of the City's residential population (67,879 people) and approximately 70 percent of the employee population (32,121 of the City's estimated 46,365 employees). With a daytime service population of 100,000 people, the Fire Department is currently maintaining a ratio of 1,149 persons per firefighter (based on 87 full-time-equivalent employees). The Fire Department does not have an official personnel-to-service-population ratio, but has used the following ratios for reference and projection purposes in the process of updating the City of South San Francisco (City) General Plan: 0.0745 station per 1,000 population, 0.0745 engine per 1,000 population, 0.019 truck company per 1,000 population, and 0.0373 ambulance per 1,000 population.<sup>5</sup>

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<sup>1</sup> Lustenberger, Craig (Fire Marshal). Personal Communication. Email to Adena Friedman. RE: Southline Specific Plan—Fire Services Questionnaire. Received October 29, 2020.

<sup>2</sup> California, Department of Finance, Table 2: E-5 City/County Population and Housing Estimates, 1/1/2020. Sacramento, California, May 2020.

<sup>3</sup> Association of Bay Area Governments. 2019. *Projections 2040*. May.

<sup>4</sup> As discussed in Section 4.12, *Population and Housing*, of this EIR, ABAG 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.

<sup>5</sup> Magallanes, Jess (Fire Chief). Personal Communication. Email to Adena Friedman. RE: Southline Questions. Received November 2, 2020.

The Fire Department operates five fire stations. The Fire Department considers current fire suppression and non-emergency medical response in its jurisdiction adequate when all resources are available. However, the Fire Department is also responsible for ambulance transport, and current utilization for dual role ambulances (i.e., paramedic and firefighter) is reaching critical call volumes such that crews are sometimes unable to complete other responsibilities such as training, equipment maintenance, report writing, adequate food/rest breaks, and availability to support the departments fire suppression and non-emergency medical responsibilities. The Fire Department is currently evaluating its utilization, and different strategies, such as staffing increases, are being considered.<sup>6</sup> The need for additional staffing is a complex issue which the Fire Department is currently evaluating and assessing based on a number of internal department programs and strategies.

The nearest fire station to the Specific Plan area, Station No. 61, is located adjacent to the intersection of Spruce Avenue and Canal Street at 480 Canal Street, approximately 0.53 mile north of the Specific Plan area. Station No. 61 has primary responsibility for the Lindenville Planning Sub-area, including the Specific Plan area. Station No. 61 has nine fire suppression personnel assigned daily and a command vehicle, fire engine, Advanced Life Support (ALS) ambulance, Basic Life Support (BLS) ambulance, reserve command vehicle, reserve fire engine, and a reserve ambulance. Station No. 63 is located west of State Route 82 at 33 Arroyo Drive, approximately 1.35 miles northwest of the Specific Plan area, and therefore would not be directly responsible for the project site, but would provide backup in the case that Station No. 61 is not available.<sup>7</sup> Station No. 63 has six fire suppression personnel assigned daily, one fire engine, and one ALS ambulance. A fire station will be constructed as part of Phase III of the City's Community Civic Campus Project at the intersection of Arroyo Drive and Camaritas Avenue, for which environmental review under CEQA was completed in 2017.<sup>8</sup> The new fire station will be approximately 8,826 square feet compared to the approximately 5,200-square-foot existing fire station No. 63. The new fire station will result in an approximately 3,626 square feet of additional facility space.<sup>9</sup> The anticipated construction date of the new fire station is unknown. The project site is not within a Fire Hazard Management Unit.<sup>10</sup>

### ***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. SSFFD's response time goal is to arrive at emergency incidents within 7 minutes and 30 seconds of a call, 90 percent of the time<sup>11</sup>. The Fire Department is able to meet the goal of a 7 minute and 30 second goal 90 percent of the time with

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<sup>6</sup> Lustenberger, Craig (Fire Marshal). Personal Communication. Email to Adena Friedman. RE: Southline Specific Plan—Fire Services Questionnaire. Received October 29, 2020

<sup>7</sup> Ibid.

<sup>8</sup> City of South San Francisco. 2017. *Community Civic Campus Project Final SEIR*. State Clearinghouse Number 1996032052. Available: <https://weblink.ssf.net/WebLink/0/doc/363910/Page1.aspx>. Accessed September 7, 2021.

<sup>9</sup> City of South San Francisco. 2020. *Community Civic Campus Program—Fire Station*. Available: <http://www.communityciviccampus.net/index.php/29-project-stats/106-fire-station>. Accessed: November 5, 2020.

<sup>10</sup> City of South San Francisco. 1999. *City of South San Francisco General Plan*. Health and Safety Element. Available: <https://www.ssf.net/home/showdocument?id=472>. Accessed: September 7, 2021.

<sup>11</sup> Lustenberger, Craig (Fire Marshal). Personal Communication. Email to Adena Friedman. RE: Southline Specific Plan—Fire Services Questionnaire. Received October 29, 2020.

efficient processing and turnout times.<sup>12</sup> The Fire Department is considered a “busy” department, and ranks Station No. 61, which would serve the Specific Plan area, and Station No. 63, which would provide secondary support, as the busiest stations in the City.<sup>13</sup>

In addition to response times, the fire department tracks other performance and workload measures, including calls for service by the hour, calls by station, and calls by unit. **Table 4.13-1, p. 4.13-5**, provides total calls received by station in 2017, the year for which the most recent data available.

**Table 4.13-1. South San Francisco Fire Department Calls by Station in 2017**

Station	Calls Received
No. 61	1,721
No. 62	1,280
No. 63	2,153
No. 64	1,343
No. 65	827
<b>Total</b>	<b>7,324</b>

Source: South San Francisco Fire Department. 2017. Activity Record. Available: <https://www.ssf.net/home/showdocument?id=11173>. Accessed: November 5, 2020.

### ***Budget and Funding***

The City Council adopted a citywide impact fee program in October 2012 for public services through City Council Resolution No. 97-2012.<sup>14</sup> The resolution requires all residential and commercial developers to pay a one-time fee charged at the issuance of building permits for new construction within the city. The Public Safety Impact Fee is collected and used to improve and expand public safety capital facilities and equipment throughout the city to support new development projects as needed. The Public Safety Impact Fee, which was updated in September 2020 by City Council Resolution 123-2020, is \$1.10 per square foot for office and research-and-development (R&D) space.<sup>15</sup>

## **4.13.2.3 Police Protection Services**

This section describes existing conditions related to resources and response times for police protection services in South San Francisco and the Specific Plan area, inclusive of the Phase 1 site.

### **City of South San Francisco Police Department**

The South San Francisco Police Department (SSFPD or Police Department) provides police protection service to the City of South San Francisco, including the Specific Plan area.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> City of South San Francisco City Council. 2012. Resolution No. 97-2012. Available: <https://weblink.ssf.net/WebLink/DocView.aspx?dbid=0&id=136268&page=1&cr=1>. Accessed: November 5, 2020.

<sup>15</sup> City of South San Francisco. 2021. Development Fees. February. Available: <https://www.ssf.net/home/showpublisheddocument/22612/637483927592270000>. Accessed: September 7, 2021.

### ***Staffing and Facilities***

The SSFPD has a total of 117-full-time-equivalent employees and 4.87 hourly contract employees. The department has 83 sworn officers and 35 civilian employees.<sup>16</sup> The Police Department provides police protection services for the City and the Specific Plan area. The department consists of a records division, communications division, canine unit, evidence division, neighborhood response team, and traffic unit; it also conducts day and night patrols. The Specific Plan area would be served by the South San Francisco Police Station located at 33 Arroyo Drive, approximately 1.35 miles northwest of the project site. A new police headquarters located at the corner of Antoinette Lane and Chestnut Avenue will replace the existing police station as part of the City's Community Civic Campus Project, for which environmental review under CEQA was completed in 2017. The new police headquarters, which is currently under construction and estimated to be complete in Fall 2021, will be approximately 44,000 square feet compared to the approximately 32,000-square-foot existing police station. The new police headquarters will result in an approximately 12,000 square feet of additional facility space.<sup>17</sup> The new police headquarters will also serve the Specific Plan area.

According to South San Francisco Police Department staff, the department serves a population of approximately 65,000 full-time residents, and approximately 40,000 daytime employees (approximately 86 percent of the City's estimated 46,365 employees in 2020 according to ABAG), or a total service population of approximately 105,000 people.<sup>18</sup> According to Police Department staff, the department strives for a service ratio of 1.3 officers per 1,000 fulltime residents; however, the department is currently evaluating the impact of a larger daytime employee population, and the ratio may be subject to change in the future.<sup>19</sup> South San Francisco General Plan Policy 8.5-I-1 also establishes a service ratio goal of 1.5 officers per 1,000 residents. According to Police Department staff, the department's current service ratio is considered adequate to serve the current service population with existing staffing and equipment.<sup>20</sup>

### ***Response Times and Performance***

As shown in **Table 4.13-2, p. 4.13-7**, the Police Department's annual crime statistics between 2017 and 2019 (the most recent years for which data is available), show a decrease in crimes including rape, strong arm robbery, aggravated assault, residential burglary, and vehicle theft, while also showing an increase in armed robbery and non-residential burglary.

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<sup>16</sup> Rudis, Michael (Master Sergeant). Personal Communication. Email to Adena Friedman. RE: Southline EIR—Police Service Questionnaire. Received October 23, 2020.

<sup>17</sup> City of South San Francisco. 2020. *Community Civic Campus Program—Police Station*. Available: <http://www.communityciviccampus.net/index.php/29-project-stats/107-police-station>. Accessed: November 5, 2020.

<sup>18</sup> Rudis, Michael (Master Sergeant). Personal Communication. Email to Adena Friedman. RE: Southline EIR—Police Service Questionnaire. Received October 23, 2020.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

**Table 4.13-2. South San Francisco Police Department Crime Statistics**

<b>Crime</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Murder & Non-Negligible Manslaughter	1	0	2
Manslaughter by Negligence	0	0	0
Rape	28	22	19
Robbery-Armed	22	20	23
Robbery-Strong Arm	50	36	41
Aggravated Assault	129	103	81
Non-Aggravated Assault	458	393	408
Burglary-Residential	84	80	63
Burglary-Non-Residential	126	177	173
Grand Theft	511	429	463
Petty Theft	669	573	614
Total Vehicle Theft	208	185	179

Source: Rudis, Michael (Master Sergeant). Personal Communication. Email to Adena Friedman. RE: Southline EIR—Police Service Questionnaire. Received October 23, 2020.

As of September 2020, the Police Department received 26,755 total calls in 2020. As shown in **Table 4.13-3, p. 4.13-8**, the Police Department has been able to maintain a relatively consistent average response time over the past decade. However, the slight increase in average response time is attributed to an increase in population (both residential and daytime employees), and their associated increase in vehicular traffic, which slows the department's response. The Police Department does not have an adopted response time goal; however, the Police Department considers their average response time to all priority calls adequate.

### ***Budget and Funding***

As stated above, the City adopted a comprehensive citywide impact fee program for public services to require new development throughout the city to pay a one-time Public Safety Impact Fee contribution to the costs of providing public safety facilities and equipment.<sup>21</sup> The Public Safety Impact Fee, which was updated in September 2020 by City Council Resolution 123-2020, is \$1.10 per square foot for office and R&D space.<sup>22</sup>

<sup>21</sup> City of South San Francisco City Council. 2012. Resolution No. 97-2012. Available: <https://weblink.ssf.net/WebLink/DocView.aspx?dbid=0&id=136268&page=1&cr=1>. Accessed: November 5, 2020.

<sup>22</sup> City of South San Francisco. 2021. Development Fees. February. Available: <https://www.ssf.net/home/showpublisheddocument/22612/637483927592270000>. Accessed: September 7, 2021.

**Table 4.13-3. South San Francisco Police Department Response Times and Service Calls**

<b>Call Priority<sup>1</sup></b>	<b>2008-2009 Total Calls for Service</b>	<b>Average Response Time</b>	<b>2018-2019 Total Calls for Service</b>	<b>Average Response Time</b>
1	999	3:29	1,036	3:51
2	15,906	5:19	18,335	5:35
3	17,732	7:10	16,428	7:31

<sup>1</sup> Priority 1 calls are calls that are classified as emergency calls and situations. Priority 2 and 3 calls are for non-emergency calls or situations.

Source: Rudis, Michael (Master Sergeant). Personal Communication. Email to Adena Friedman. RE: Southline EIR—Police Service Questionnaire. Received October 23, 2020.

#### 4.13.2.4 Schools

This section describes the existing conditions with regard to schools serving South San Francisco, and the Specific Plan area, inclusive of the Phase 1 site.

##### **South San Francisco Unified School District**

The South San Francisco Unified School District (SSFUSD) was established in 1913 and serves the City of South San Francisco with nine elementary schools, three middle schools, three high schools, and one adult education center. The Specific Plan area is served by Los Cerritos Elementary, Parkway Heights Middle School, South San Francisco High School, and Baden Continuation School (Adult Education Center).<sup>23</sup> The locations of these SSFUSD schools are listed below.<sup>24</sup>

- Los Cerritos Elementary, 210 West Orange Avenue, South San Francisco, CA 94080: Approximately 0.76 mile northwest from the project site.
- Parkway Heights Middle School, 650 Sunset Avenue, South San Francisco, CA 94080: Approximately 1.50 miles north from the project site.
- South San Francisco High School, 400 B Street, South San Francisco, CA 94080: Approximately 0.59 mile northeast from the project site.
- Baden Continuation School, 825 Southwood Drive, South San Francisco, CA 94080: Approximately 1.15 miles northwest of the project site.

##### **Enrollment and Capacity**

**Table 4.13-4, p. 4.13-9**, shows SSFUSD's recent past enrollments. According to the most recent enrollment figures, SSFUSD's total enrollment for the 2019/2020 school year was 8,438, a 0.6 percent decrease from the previous year and a 7.4 percent decrease from 2014/2015. In general, all the schools in the SSFUSD, not just the ones that serve the Specific Plan area, have experienced a decline

<sup>23</sup> SSFUSD. 2018. Find Your School. Available: [https://ssfusd-ca.schoolloop.com/pf4/cms2/view\\_page?d=x&group\\_id=1295706269370&vdid=ii12b1tk368pz](https://ssfusd-ca.schoolloop.com/pf4/cms2/view_page?d=x&group_id=1295706269370&vdid=ii12b1tk368pz). Accessed: November 5, 2020.

<sup>24</sup> SSFUSD. 2018. All Schools—General Information. Available: [https://ssfusd-ca.schoolloop.com/pf4/cms2/view\\_page?d=x&group\\_id=1500178971544&vdid=i1j2b1ytkg368eo](https://ssfusd-ca.schoolloop.com/pf4/cms2/view_page?d=x&group_id=1500178971544&vdid=i1j2b1ytkg368eo). Accessed: November 5, 2020.

in enrollment in recent years. SSFUSD's enrollment as of 2019/2020 was 8,438, compared with a capacity of 12,600 students; as of 2019, the district had no plans to open additional school facilities.<sup>25</sup>

**Table 4.13-4. Enrollment for the South San Francisco Unified School District**

<b>School</b>	<b>2014/ 2015</b>	<b>2015/ 2016</b>	<b>2016/ 2017</b>	<b>2017/ 2018</b>	<b>2018/ 2019</b>	<b>2019/ 2020</b>
Los Cerritos Elementary	279	274	299	309	304	296
Parkway Heights Middle School	628	639	630	617	614	589
South San Francisco High School	1,403	1,363	1,366	1,388	1,321	1,294
Baden Continuation School	86	96	101	93	107	103
<b>Total</b>	<b>2,396</b>	<b>2,372</b>	<b>2,396</b>	<b>2,407</b>	<b>2,346</b>	<b>2,282</b>
<b>Total SSFUSD Enrollment</b>	<b>9,111</b>	<b>8,941</b>	<b>8,879</b>	<b>8,707</b>	<b>8,485</b>	<b>8,438</b>

Source: California Department of Education, DataQuest, 2020. Enrollment Multi-Year Summary by Grade—SSFUSD. Available: <https://dq.cde.ca.gov/dataquest/>. Accessed November 5, 2020.

### **Student Generation Rate**

The SSFUSD uses the following student generation rates according to school type:<sup>26</sup>

- 0.1636 elementary school student per household
- 0.0775 middle school student per household
- 0.1228 high school student per household

### **Budget and Funding**

SSFUSD's revenue sources include state funding through the Local Control Funding Formula and the Local Control Accountability Plan, property taxes, federal subsidies, one-time mandated cost reimbursements, Grants, and other sources. In 2010, voters in San Mateo County passed Measure J, which is a \$162 million bond to replace portable classrooms with permanent classrooms, updating and repairing outdated facilities, improving safety and security on campuses, and enhancing energy efficiency. SSFUSD is still using this bond, primarily for the demolition of portable classrooms at South San Francisco High School.<sup>27</sup> In addition, the district received a \$2 million grant from Genentech in October 2019 to support the development and implementation of new math and science curricula across the entire district.<sup>28</sup> Furthermore, the SSFUSD also collects fees levied on developers of residential and non-residential properties (aka Developer Fees). The current

<sup>25</sup> City of South San Francisco. 2019. South San Francisco General Plan Update—Parks and Public Facilities Existing Conditions Report. Available: [https://shapessf.com/wp-content/uploads/2019/11/SSF\\_ECR\\_Ch5\\_ParksPubFacilities\\_final.pdf](https://shapessf.com/wp-content/uploads/2019/11/SSF_ECR_Ch5_ParksPubFacilities_final.pdf). Accessed: November 6, 2020.

<sup>26</sup> City of South San Francisco. 2017. Oyster Point Specific Plan Update—Appendix I, Municipal Services Assessment. Available: <https://weblink.ssf.net/WebLink/Browse.aspx?startid=367016&dbid=0>. Accessed: November 6, 2020.

<sup>27</sup> City of South San Francisco. 2019. South San Francisco General Plan Update—Parks and Public Facilities Existing Conditions Report. Available: [https://shapessf.com/wp-content/uploads/2019/11/SSF\\_ECR\\_Ch5\\_ParksPubFacilities\\_final.pdf](https://shapessf.com/wp-content/uploads/2019/11/SSF_ECR_Ch5_ParksPubFacilities_final.pdf). Accessed: November 6, 2020.

<sup>28</sup> SSFUSD. 2019. SSFUSD Receives \$2 Million Grant from Genentech in Support of Science Education. Available: [https://www.ssfusd.org/pf4/cms2/news\\_themed\\_display?id=1569929853007](https://www.ssfusd.org/pf4/cms2/news_themed_display?id=1569929853007). Accessed: November 6, 2020.

Developer Fees, as of September 2018, are \$0.61 per square foot for commercial and industrial development.<sup>29</sup>

#### 4.13.2.5 Library and Childcare Services

This section provides a discussion of the existing conditions related to libraries and childcare that serve the Specific Plan area, inclusive of Phase 1. The City 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 funded primarily by its member libraries, 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.<sup>30</sup>

##### Library Facility and Services

The Specific Plan area is served by the South San Francisco Public Library System, which is part of the PLS. The South San Francisco Public Library System includes the Main Library at 840 West Orange Avenue, the Grand Avenue Library at 306 Walnut Avenue, and the Community Learning Center at 520 Tamarack Lane.<sup>31</sup> The two libraries provide free access to books and other reading materials in a wide variety of languages, iPads and laptops available for checkout, weekly digital literacy classes, literacy programs, and on-site access to computers and the internet.

The General Plan does not include any standard for providing library services. Within recent years, approximately 60,000 people attended library programs, approximately 411,000 visits were made to the library facilities, and approximately 580,000 library materials were circulated.<sup>32</sup> Due to the smaller size of the main library, space within the library has become increasingly limited, and the outdated nature of the building does not allow for technology upgrades to improve network access.<sup>33</sup> However, since the South San Francisco Public Libraries are part of the PLS, residents also have access to services from all member libraries, which partly makes up for any shortages. In addition, a new library will replace the existing main library as part of the City's Community Civic Campus Project, for which environmental review under CEQA was completed in 2017. The new library will be approximately 80,000 square feet compared to the approximately 57,120-square-foot existing main library. The new library will result in an approximately 23,000 square feet of additional facility space, and groundbreaking on this phase of the Civic Campus project occurred in January, 2021.

<sup>29</sup> City of South San Francisco. 2021. Development Fees. February. Available: <https://www.ssf.net/home/showpublisheddocument/22612/637483927592270000>. Accessed: September 7, 2021.

<sup>30</sup> Peninsula Library System. 2020. *About PLS*. Available: <https://plsinfo.org/about/>. Accessed: November 5, 2020.

<sup>31</sup> City of South San Francisco. n.d. Library Locations & Hours. Available: <https://www.ssf.net/departments/library/locations-hours>. Accessed: November 6, 2020.

<sup>32</sup> City of South San Francisco. 2019. South San Francisco General Plan Update—Parks and Public Facilities Existing Conditions Report. Available: [https://shapessf.com/wp-content/uploads/2019/11/SSF\\_ECR\\_Ch5\\_ParksPubFacilities\\_final.pdf](https://shapessf.com/wp-content/uploads/2019/11/SSF_ECR_Ch5_ParksPubFacilities_final.pdf). Accessed: November 6, 2020.

<sup>33</sup> Ibid.

The City adopted Resolution 121-2020 in September 2020, which establishes a Library Impact Fee for new development to generate funds for library facilities and services.<sup>34</sup> The current Library Impact Fee for office and R&D space is \$0.12 per square foot.<sup>35</sup>

### **Child Care Facilities and Services**

There are approximately 28 childcare facilities within South San Francisco, of which several are located within Lindenville Planning Sub-Area and near the Specific Plan area.<sup>36</sup> These include both private and public preschools. The City has also identified a potential site for a future preschool. In 2017, a Childcare and Preschool Needs Assessment was prepared for San Mateo County, which provided detailed supply and demand estimates, and existing supply of childcare and preschool facilities for each of the cities and towns located within San Mateo County. The assessment found that there is a surplus of childcare facilities within South San Francisco, and an adequate number of existing childcare and preschool facilities exist within the City to support a growing population.<sup>37</sup>

The City has a Childcare Impact Fee, codified in Chapter 20.310 of the South San Francisco Municipal Code, which assigns a fee of \$1.26 per square foot of office and R&D space to generate funds for childcare facilities.<sup>38</sup>

## **4.13.3 Regulatory Framework**

This section provides a summary of the public services plans and policies of the City as well as federal and state agencies that have policy and regulatory control over the Specific Plan area.

### **4.13.3.1 Federal**

#### **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.”

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<sup>34</sup> City of South San Francisco. 2020. Resolution 121-2020. Available: <https://weblink.ssf.net/weblink/DocView.aspx?id=448242&searchid=6c728353-e00b-4d3a-bd80-dfa734ff974a&dbid=0>. Accessed: September 7, 2021.

<sup>35</sup> City of South San Francisco. 2021. Development Fees. February. Available: <https://www.ssf.net/home/showpublisheddocument/22612/637483927592270000>. Accessed: September 7, 2021.

<sup>36</sup> City of South San Francisco. 2019. South San Francisco General Plan Update—Parks and Public Facilities Existing Conditions Report. Available: [https://shapessf.com/wp-content/uploads/2019/11/SSF\\_ECR\\_Ch5\\_ParksPubFacilities\\_final.pdf](https://shapessf.com/wp-content/uploads/2019/11/SSF_ECR_Ch5_ParksPubFacilities_final.pdf). Accessed: November 6, 2020.

<sup>37</sup> Sarah Kinahan Consulting. 2017. *San Mateo County Childcare and Preschool Needs Assessment*. November 2017. Available: [https://www.smcoe.org/assets/files/About\\_FIL/Child%20Care%20Partnership%20Council\\_FIL/Needs%20Assessment\\_FIL/CCPC\\_Full\\_Report\\_Needs\\_Assessment\\_11-17.pdf](https://www.smcoe.org/assets/files/About_FIL/Child%20Care%20Partnership%20Council_FIL/Needs%20Assessment_FIL/CCPC_Full_Report_Needs_Assessment_11-17.pdf). Accessed: November 6, 2020

<sup>38</sup> City of South San Francisco. 2021. Development Fees. February. Available: <https://www.ssf.net/home/showpublisheddocument/22612/637483927592270000>. Accessed: September 7, 2021.

### 4.13.3.2 State

#### California Fire Code<sup>39</sup>

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.

#### 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.

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<sup>39</sup> The 2019 California Fire Code is incorporated in South San Francisco Municipal Code Chapter 15.24, *California Fire Code*.

### 4.13.3.3 Local

#### South San Francisco General Plan

The City's current General Plan, adopted in 1999, provides a vision for long-range physical and economic development of the city, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The General Plan contains a Health and Safety Element, which acknowledges and mitigates the risks posed by hazards (e.g., fire) and ensures adequate police service. The General Plan includes the following policies applicable to public services:

##### Fire and Police Protection

- **Policy 8.4-G-1:** Minimize the risk to life and property from fire hazards in South San Francisco.
- **Policy 8.4-G-2:** Provide fire protection that is responsive to citizens' needs.
- **Policy 8.4-I-4<sup>40</sup>:** Require site design features, fire-retardant building materials, and adequate access as conditions for approval of development or improvements to reduce the risk of fire within the city.
- **Policy 8.5-G-1:** Provide police services that are responsive to citizens' needs to ensure a safe and secure environment for people and property in the community.
- **Policy 8.5-I-1:** Ensure adequate police staff to provide a rapid and timely response to all emergencies and maintain the capability to have minimum average response times.

Actions that could be taken to ensure rapid and timely response to all emergencies include:

- Maintain a law enforcement standard of 1.5 police officers per 1,000 residents;
- Analyze and monitor factors affecting response time (population growth, police staffing, community policing programs) and average response times as guidelines based on past experience;
- Maintain, train, and equip special response teams for extraordinary or extremely hazardous emergency incidents; and
- Develop and/or use the City's Geographic Information System (GIS) for analysis of issues including crime location trends and response routes (see policy 2-I-14).

##### Schools and Childcare Facilities

- 5.2-G-1 Support efforts by the South San Francisco Unified School District to maintain and improve educational facilities and services.
- 5.2-I-1 Work with the SSFUSD on appropriate land uses for school sites no longer needed for educational facilities. Acquire closed school sites for recreation facilities and childcare purposes where appropriate.

The General Plan does not include any policies specifically addressing library services.

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<sup>40</sup> Policy 8.4-I-4 is misnumbered in the General Plan as the second Policy "8.4-I-3".

## South San Francisco Municipal Code

According to the South San Francisco Municipal Code Chapter 15.48, the City requires minimum design measures to be incorporated into projects as a standard condition of approval in order to safeguard property and promote public welfare and safety. The chapter outlines specific minimum security standards for nonresidential buildings, such as the proposed project, which includes alarm systems, keying requirements, safes, and security design measures for doors, windows, ladders, and hatchway openings. The proposed project would be required to incorporate these minimum security standards.

As discussed in Section 4.13.2 above, the City assigns a Public Safety Impact Fee (City Council Resolution 123-2020), a Library Impact Fee (City Council Resolution 121-2020), and a Childcare Impact Fee (Chapter 20.310 of the Municipal Code) for new development to contribute to Citywide funding for these services.

### 4.13.4 Impacts and Mitigation Measures

This section describes the impact analysis related to public services for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

#### 4.13.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant public services impact if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:
  - Fire protection
  - Police protection
  - Schools
  - Parks
  - Other public facilities

#### 4.13.4.2 Approach to Analysis

Evaluation of the proposed project is based on considering how employee population growth resulting from implementation of the proposed project and Phase 1 would affect fire and police protection, school, library, and childcare services. Impacts on parks are discussed in Section 4.14, *Recreation*, of this EIR.

According to the CEQA significance criteria, the proposed project would have an adverse environmental impact if it were to result in substantial adverse physical impact associated with the provision of new or physically altered government facilities, the construction of which could cause

significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for public services.

Potential impacts related to public services are evaluated by (a) assessing the potential for the project 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 and communications with City service providers.

As discussed in Section 4.12, *Population and Housing*, of this EIR, the employees generated by the project could result in indirect population generation in the City (i.e., project employees currently living outside the City who choose to relocate, possibly with their families, to the City). This potential indirect population and housing growth is considered in the analysis of the project's consistency with ABAG's population and housing growth projections for the city and region in Section 4.12, *Population and Housing*.

### **Buildout Scenario Studied (Office Scenario)**

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow development of the commercial campus as either office or R&D uses, or a combination of both, up to 2,800,000 square feet. For the purposes of the program-level EIR analysis, two projected buildout scenarios were identified that would represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses 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.

This section analyzes the build out scenario which represents the "worst-case" scenario for public services. Of the two scenarios, the Office Scenario would construct the largest amount of square footage, with the highest density of employees, and as such, would generate the greatest number of new employees. Therefore, the Office Scenario is evaluated in this analysis. As discussed in Section 4.12, *Population and Housing*, of this EIR, implementation of the Office Scenario would result in a direct increase of approximately 10,745 net new employees in the Specific Plan area, and an indirect increase of approximately 1,705 new residents in the City when accounting for employees who move to the City as a result of project employment and their household members (conservatively assuming that all employees would be new to the area, as explained in Section 4.12, *Population and Housing*, of this EIR). Approximately 2,349 of the 10,745 employees and 366 of the 1,705 residents would be associated with Phase 1.

#### **4.13.4.3 Impact Evaluation**

**Impact PS-1: The project would not require the provision of new or physically altered fire and emergency medical services in order to maintain acceptable service ratios, response**

**times, or other performance objectives. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

As discussed in Section 4.13.4.2, *Approach to Analysis*, the project would directly increase the City's employment population by approximately 10,745 employees. The project would indirectly increase the City's residential population by approximately 1,705 residents. Thus, the project would result in an increase in the number of calls for fire protection and emergency services. As discussed in Section 4.13.2, *Environmental Setting*, the Fire Department includes 87 full-time-equivalent employees and a service population of approximately 100,000 persons, or approximately 1,149 persons per firefighter. The Fire Department considers a project's service population to include the total residential population and approximately 70 percent of the total employment population. Assuming that 70 percent of the project's 10,745 employees and all of the project's employment-generated residential population count as additional to the service population, the proposed project would increase the Fire Department's service population by approximately 9,227 people  $[(10,745 \times 0.7) + 1,705]$ , reducing the Fire Department's service ratio to 1,256 persons per firefighter  $(109,227 / 87)$ . The Fire Department does not have an official personnel-to-service-population ratio.

The Fire Department estimates that the project would increase the Department's call volume by 70 to 95 calls per year, or 0.3 to 0.2 calls per day.<sup>41</sup> Station No. 61, which is approximately 0.53 mile north of the Specific Plan area, would provide primary fire and emergency response to the project, and Station No. 63, approximately 1.35 miles northwest of the Specific Plan area, would provide close access in the event that Station No. 61 is unable to respond, or secondary response if needed for a fire or emergency medical event.

As part of the City's standard conditions of approval, all buildings constructed under the project would be built in conformance with the South San Francisco Municipal Fire Code, which incorporates the 2019 California Fire Code, 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.

The Fire Department is currently meeting the response time goal of 7 minutes and 30 seconds 90 percent of the time with efficient processing and turnout times.<sup>42</sup> While the addition of 9,227 persons to the Fire Department's service population would increase the number of calls for fire protection and emergency service, this is unlikely to adversely impact response times, which are already meeting the Department's standard, to the extent that construction of a new facility is required. In addition, as mentioned above, a fire station will be constructed as part of Phase III of the City's Community Civic Campus Project, for which environmental review under CEQA was completed in 2017. The new fire station will be approximately 8,826 square feet compared to the approximately 5,200-square-foot existing Station No. 63. The new fire station will result in an approximately 3,626 square feet of additional facility space, and will allow for the Fire Department to expand their capacity as growth continues to occur throughout the City.<sup>43</sup>

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<sup>41</sup> Lustenberger, Craig (Fire Marshal). Personal Communication. Email to Adena Friedman. RE: Southline Specific Plan—Fire Services Questionnaire. Received October 29, 2020. Note that this estimate was based on an initial estimate of approximately 11,200 employees, and therefore may be somewhat conservative.

<sup>42</sup> Ibid.

<sup>43</sup> City of South San Francisco. 2020. *Community Civic Campus Program—Fire Station*. Available: <http://www.communityciviccampus.net/index.php/29-project-stats/106-fire-station>. Accessed: November 5, 2020.

The project's impacts on emergency access are evaluated in Section 4.15, *Transportation and Circulation*, of this EIR. As discussed therein, the project would provide an additional route for emergency vehicles to access the Specific Plan area through construction of the new Southline Avenue and the new intersection at Sneath Lane/Huntington Avenue/Southline Avenue, both of which would be constructed during Phase 1. Upon project completion, adequate emergency access would be provided to the Specific Plan area, including the Phase 1 site.

The SSFFD commented on the proposed project through the City's standard review process. According to the SSFFD, the demand for fire protection service associated with the proposed project, including Phase 1, would not necessitate the construction of a new fire facility.<sup>44</sup>

Based on the analysis above, although the project would increase the number of employees, building density, and level of daytime activity in the Specific Plan area, and the number of employee-generated residents in the City, the anticipated increase in demand for fire protection services would not be expected to degrade service levels to the extent that the construction of a new facility would be required. Furthermore, the proposed project would be required to comply with the City's standard conditions and any project-specific conditions of approval, including the payment of development impact fees. Therefore, the proposed project would not result in substantial adverse environmental impacts associated with the construction or alteration of fire protection facilities to maintain acceptable service ratios, response times, or other performance objectives, and this impact would be ***less than significant***. No mitigation is required.

## Phase 1

As described in Section 4.12, *Population and Housing*, Phase 1 would construct approximately 700,915 new square feet of office space and would generate approximately 2,349 of the project's 10,745 net new employees and approximately 366 of the project's 1,705 employee-generated residents in the City. Because Phase 1 is a component of the overall project, for the reasons stated above in the project analysis, Phase 1 would not result in substantial adverse environmental impacts associated with the construction or alteration of fire protection facilities to maintain acceptable service ratios, response times, or other performance objectives, and this impact would be ***less than significant***. No mitigation is required.

**Impact PS-2: The project would not require the provision of new or physically altered police protection services in order to maintain acceptable service ratios, response times, or other performance objectives. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

The project's approximately 10,745 net new employees and 1,705 employee-generated residents would increase the number of calls for the Police Department's services. As discussed above, the Police Department strives for a service ratio goal of 1.3 officers per 1,000 fulltime residents. South San Francisco General Plan Policy 8.5-I-1 also establishes a service ratio goal of 1.5 officers per 1,000 residents. With 83 full-time-equivalent officers and a residential population of 67,879 people, the Police Department's current service ratio is approximately 1.2 officers per 1,000 residents. The

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<sup>44</sup> Lustenberger, Craig (Fire Marshal). Personal Communication. Email to Adena Friedman. RE: Southline Specific Plan—Fire Services Questionnaire. Received October 29, 2020.

addition of 1,705 fulltime residents associated with project employees would maintain a current service ratio of 1.2 officers per 1,000 residents.

As discussed above, according to the SSFPD, the department serves a daytime (peak) service population of 105,000 people, which corresponds to 100 percent of the City's residential population and approximately 86 percent of the City's estimated employee population according to ABAG estimates. Assuming that 86 percent of the project's approximately 10,745 employees and all of the project's approximately 1,705 employee-generated residents count as additions to the service population, the project would add approximately 10,946 persons to the Police Department's service population ( $[10,745 \times 0.86] + 1,705$ ). The additional daytime employee population and indirect population growth generated by the project would be expected to result in an increase in the number of calls for law enforcement services.

The proposed project would be required to comply with Chapter 15.48 of the City's Municipal Code, which includes specifications for security design measures, as a standard condition of project approval, which would help to address and minimize security concerns in the Specific Plan area.

As discussed in Section 4.13.2, *Environmental Setting*, the Police Department considers its current service ratio to be adequate to serve the current service population with existing staffing and equipment. While the project would increase the number of calls for police protection by approximately 61.88 calls annually, or 0.17 calls per day, this is unlikely to adversely impact response times, which the department currently considers adequate, to the extent that construction of a new facility is required.<sup>45</sup> While the project would increase traffic volumes in the vicinity, the construction of the new Southline Avenue would facilitate emergency response from first responders. In addition, as mentioned above, a new police headquarters will be constructed as part of Phase III of the City's Community Civic Campus Project, for which environmental review under CEQA was completed in 2017. The new police headquarters, which is currently under construction and estimated to be complete in Fall 2021, will be approximately 44,000 square feet compared to the approximately 32,000-square-foot existing police station. The new police headquarters will result in an approximately 12,000 square feet of additional facility space, which will allow the department to expand its capacity as growth continues to occur throughout the City.<sup>46</sup>

The SSFPD commented on the proposed project through the City's standard review process. According to the SSFPD, while the project would not result in the need to build a new facility, it is likely that the Department would need to increase staffing to serve the increased permanent and daytime population resulting from the project.<sup>47</sup> 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. In addition, the proposed project would be required to pay

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<sup>45</sup> The average annual call volume was calculated using an annual service call generation rate of 0.0221 calls per 1,000 square feet of office/R&D space as follows: 0.0221 calls (2,800,000 square feet/1,000 square feet) = 61.88 annual service calls.

Source: City of South San Francisco. 2017. 2017 Oyster Point Specific Plan Update Appendix I, Municipal Services Assessment, Table A-2: Police Department Response Call Volume Demand Estimates. Available: <https://weblink.ssf.net/WebLink/0/doc/367046/Page1.aspx>. Accessed: February 11, 2021.

<sup>46</sup> City of South San Francisco. 2020. *Community Civic Campus Program—Police Station*. Available: <http://www.communityciviccampus.net/index.php/29-project-stats/107-police-station>. Accessed: November 5, 2020.

<sup>47</sup> Rudis, Michael (Master Sergeant). Personal Communication. Email to Adena Friedman. RE: Southline EIR—Police Service Questionnaire. Received October 23, 2020.

the City's Public Safety Impact Fee, which would help to fund future staffing increases and/or facility expansion for the Police Department.

Based on the analysis above, although the project would increase the number of employees, building density, and level of daytime activity at the Specific Plan area, and the number of employee-generated residents in the City, the anticipated increase in demand for police protection services would not be expected to degrade service levels to the extent that the construction of a new facility would be required. Furthermore, the proposed project would be required to comply with the City's standard conditions and any project-specific conditions of approval, including the payment of development impact fees. Therefore, the proposed project would not result in substantial adverse environmental impacts associated with the construction or alteration of police protection facilities to maintain acceptable service ratios, response times, or other performance objectives, and this impact would be ***less than significant***. No mitigation is required.

## Phase 1

As described in Section 4.12, *Population and Housing*, Phase 1 would construct approximately 700,915 new square feet of office space and would generate approximately 2,349 of the project's 10,745 net new employees and approximately 366 of the project's 1,705 employee-generated residents in the City. Because Phase 1 is a component of the overall project, for the reasons stated above in the project analysis, Phase 1 would not result in substantial adverse environmental impacts associated with the construction or alteration of police protection facilities to maintain acceptable service ratios, response times, or other performance objectives, and this impact would be ***less than significant***. No mitigation is required.

**Impact PS-3: The project would not require the provision of new or physically altered schools in order to maintain acceptable service ratios, response times, or other performance objectives. (Project: *Less than Significant*; Phase 1: *No Less than Significant*)**

## Project

The proposed project does not include any residential units and would not directly generate new students. However, as explained in Section 4.12, *Population and Housing*, project employees could indirectly generate approximately 559 new households and 1,705 new residents within the City. The SSFUSD has developed metrics to estimate student generation based on school type. **Table 4.13-5, p. 4.13-19**, shows the estimated number of new students generated by the proposed project under the Office Scenario.

**Table 4.13-5. Estimated Students Generated in the South San Francisco Unified School District – Office Scenario**

School Type	Generation Rate	Number of Project-Generated Households	Students
Elementary School	0.1636	559	91
Middle School	0.0775	559	43
High School	0.1228	559	69

Source: City of South San Francisco. 2017. Oyster Point Specific Plan Update—Appendix I, Municipal Services Assessment. Available: <https://weblink.ssf.net/WebLink/Browse.aspx?startid=367016&dbid=0>. Accessed: November 6, 2020.

As shown in **Table 4.13-5, p. 4.13-19**, project employee households could generate a total of approximately 203 students in SSFUSD schools. According to the most recent enrollment figures, the SSFUSD's total enrollment for the 2019/2020 school year was 8,438, a 0.6 percent decrease from the previous year and a 7.4 percent decrease from 2014/2015. In general, all schools in the SSFUSD have experienced a decline in enrollment in recent years, as depicted in **Table 4.13-4, p. 4.13-9**.

As the SSFUSD has seen a decline in enrollment, the project-related increase of 203 students, including 91 elementary school students, 43 middle school students, and 69 high school students, would be expected to be accommodated within the capacity of SSFUSD schools. Additionally, development under the proposed project would be subject to developer fees of \$0.61 per square foot of commercial and industrial development, which are deemed to fully mitigate the impact of new development on school districts.<sup>48</sup> Therefore, the proposed project's impacts related to the SSFUSD would be ***less than significant***. No mitigation is required.

## Phase 1

As described in Section 4.12, *Population and Housing*, Phase 1 would construct approximately 700,915 new square feet of office space and would generate approximately 2,349 of the project's 10,745 net new employees and approximately 366 of the project's 1,705 employee-generated residents in the City. Because Phase 1 is a component of the overall project, for the reasons stated above in the project analysis, Phase 1 would not result in substantial adverse environmental impacts associated with the construction or alteration of school protection facilities to maintain acceptable service ratios, or other performance objectives, and this impact would be ***less than significant***. No mitigation is required.

**Impact PS-4: The project would not require the provision of new or physically altered libraries or other public facilities in order to maintain acceptable service ratios, response times, or other performance objectives. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

## Project

Library service demand is primarily driven by a library's residential service population. The proposed project does not include any residential units, and would not directly generate new library users. However, as explained in Section 4.12, *Population and Housing*, project employees could indirectly generate approximately 1,705 new residents within the City. While the additional employees and residents associated with the proposed project could generate an increased demand for library services (to the extent the employees visit libraries during their lunch breaks, or before or after work), any such increase would be expected to be minimal. In addition, a new library is planned to replace the existing main library as part of the City's Community Civic Campus Project, for which environmental review under CEQA was completed in 2017. The new library will be approximately 80,000 square feet compared to the approximately 57,120-square-foot existing main library. The new library will result in an approximately 23,000 square feet of additional facility space, which will allow the South San Francisco Library System to expand their capacity as growth continues to occur throughout the city.<sup>49</sup> The City is also a part of the Peninsula Library System, and residents and employees generated by the proposed project would also have access to all member

<sup>48</sup> Government Code Section 65995(b)(3).

<sup>49</sup> City of South San Francisco. 2020. *Community Civic Campus Program—New Library*. Available: <http://www.communityciviccampus.net/index.php/29-project-stats/108-library-and-parks-recreation-center>. Accessed: November 6, 2020.

libraries, which would help to accommodate the increase in service. Given these considerations, any increased demand for library services associated with the proposed project would not be expected to require the construction of a new library facility.

The proposed project would also increase the demand for preschool childcare services as a result of the increased number of employees and residents (i.e., approximately 10,745 net new employees and 1,705 employee-generated residents). However, as discussed in Section 4.13.2, *Environmental Setting*, there is a surplus of existing preschool and other childcare facilities currently in the City, which would be expected to accommodate the increase in demand for preschool childcare services that would be generated by the proposed project.<sup>50</sup> In addition, the proposed project would be required to pay the City's Childcare Impact Fee of \$1.26 per square foot per office and R&D space.

Based on the analysis above, although the project would increase the number of employees in the Specific Plan area and the number of employee-generated residents in the City, the anticipated increase in demand for library and childcare services would not be expected to degrade service levels to the extent that the construction of new facilities would be required. Furthermore, the proposed project would be required to comply with the City's standard conditions and any project-specific conditions of approval, including the payment of development impact fees. Therefore, the proposed project would not result in substantial adverse environmental impacts associated with the construction or alteration of library or childcare facilities to maintain acceptable service ratios, response times, or other performance objectives, and this impact would be ***less than significant***. No mitigation is required.

## Phase 1

As described in Section 4.12, *Population and Housing*, Phase 1 would construct approximately 700,915 new square feet of office space and would generate approximately 2,349 of the project's 10,745 net new employees and approximately 366 of the project's 1,705 employee-generated residents in the City. Because Phase 1 is a component of the overall project, for the reasons stated above in the project analysis, Phase 1 would not result in substantial adverse environmental impacts associated with the construction or alteration of library or childcare facilities to maintain acceptable service ratios, response times, or other performance objectives, and this impact would be ***less than significant***. No mitigation is required.

### 4.13.4.4 Cumulative Impacts

The geographic context for cumulative impacts related to fire protection, police protection, library, and childcare services is the City of South San Francisco because these services are provided on a Citywide basis, and service ratios by which demand is estimated (where applicable) are based on Citywide figures. Cumulative projects anticipated in the City of South San Francisco are shown in Table 4.1-2 in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this. These include 2,926 residential units, 87,815 square feet of commercial/retail space, 5.6 million square feet of office/R&D space, and 443 hotel rooms. The geographic context for cumulative analysis for impacts on schools is the SSFUSD school district.

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<sup>50</sup> Sarah Kinahan Consulting. 2017. *San Mateo County Childcare and Preschool Needs Assessment*. November 2017. Available: [https://www.smcoe.org/assets/files/About\\_FIL/Child%20Care%20Partnership%20Council\\_FIL/Needs%20Assessment\\_FIL/CCPC\\_Full\\_Report\\_Needs\\_Assessment\\_11-17.pdf](https://www.smcoe.org/assets/files/About_FIL/Child%20Care%20Partnership%20Council_FIL/Needs%20Assessment_FIL/CCPC_Full_Report_Needs_Assessment_11-17.pdf). Accessed: November 6, 2020.

**Impact C-PS-1: The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a significant cumulative impact on public services. (*Less than Significant*)**

The project, inclusive of Phase 1, in combination with other past, present, and reasonably foreseeable projects, would increase the number of residents and employees in the City, leading to an increase in demand for fire protection, police protection, school, library, and childcare services. With respect to fire protection and police protection services, SSFFD and SSFPD are essential service providers that continually assess demand based on anticipated growth and service needs. By analyzing applicable metrics, SSFFD and SSFPD continuously adjust staffing, capacity, response times, and other measures of performance. In addition, the cumulative projects, similar to the proposed project, would be subject to Citywide development impact fees and school developer fees based on the square footage of each project. Therefore, the cumulative projects would not be anticipated to result in any service gaps related to fire protection, police protection, schools, libraries, or childcare services. For these reasons, the proposed project, inclusive of Phase 1, in combination with other past, present, and reasonably foreseeable future projects, would result in a ***less than significant*** cumulative impact to public services. No mitigation is required.

## 4.14 Recreation

### 4.14.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on recreation. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described.

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. No questions or concerns related to recreation were raised in the response to the NOP.

### 4.14.2 Environmental Setting

This section describes the parks and recreation facilities that serve the Specific Plan area. As described in Chapter 3, *Project Description*, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno, but would not include the development of any new structures or land uses within San Bruno. These improvements include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. The off-site improvements within San Bruno's jurisdiction would not include any parks and recreational facilities or any land uses that would generate a demand for parks and recreational facilities. However, the proposed uses in the Specific Plan area could generate a demand for parks and recreational facilities in both cities. Therefore, this section evaluates the project's impacts on both South San Francisco and San Bruno parks and recreational facilities, with the focus of the San Bruno analysis being the demand generated by project employees and employee population on San Bruno parks and recreational facilities.

#### 4.14.2.1 Existing Parks and Recreational Facilities

The Specific Plan area is in the City of South San Francisco (City), northwest of the U.S. 101/Interstate 380 interchange. The Specific Plan area is on the border of South San Francisco and the City of San Bruno; the nearest parks and open spaces are generally located within both cities. This section provides a discussion of the existing conditions related to parks and recreation in the vicinity of the Specific Plan area, inclusive of the Phase 1 site.

The City of South San Francisco Parks and Recreation Department manages more than 270 acres of parks, open spaces, and outdoor recreational facilities in the city, including 145 acres of parks and playgrounds; more than 80 acres of open space at Sign Hill Park, Oyster Point Marina, and within a community garden; and 14 acres of athletic fields, which are shared with the South San Francisco

Unified School District (SSFUSD).<sup>1</sup> The City maintains a Joint Use Agreement with SSFUSD, which provides public use of school facilities located on SSFUSD land for an additional 95.8 acres of recreational space. The closest City Parks and Recreation Department areas serving the project site are the Centennial Way Multi-Use Trail, Francisco Terrace Playlot, and San Francisco Bay Trail.

The City of San Bruno, located directly adjacent to the project site, also offers many nearby parks and recreational facilities in proximity to the project site. The City of San Bruno contains four types of parks in addition to school district facilities that are available for recreational uses outside of school hours: pocket parks, neighborhood parks, community parks and regional parks. 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.<sup>2</sup> They provide passive facilities such as picnicking, hiking, and spaces for large group events. The closest San Bruno parks serving the project site are Bayshore Circle Park, Herman Tot Lot, and Forest Lane Park.

**Table 4.14-1, p. 4.14-2**, shows parks, recreational facilities, and open spaces in South San Francisco and San Bruno within a 1-mile radius of the project site, including schools that are a part of the SSFUSD Joint Use Agreement. **Figure 4.14-1, p. 4.14-4**, depicts the locations of the parks, recreational facilities, and open spaces in **Table 4.14-1**.<sup>3</sup>

**Table 4.14-1. Parks, Open Spaces, and Recreational Facilities Within One Mile of the Project Site**

Name	Size (acres)	Amenities	Approximate Distance from Project Site (mile)	City Jurisdiction
Centennial Way Multi-Use Trail	16	Walking and Bicycle Trail	Adjacent on the western side	South San Francisco
Bayshore Circle Park	0.5	Basketball Courts, Benches, 5 to 12 Years Equipment	0.1 south	San Bruno
Herman Tot Lot	0.25	Benches, 5 Years & Under Equipment	0.3 south	San Bruno
Francisco Terrace Playlot	0.3	Adult Fitness Equipment, Basketball Courts, Children's Play Area	0.3 northwest	South San Francisco
Forest Lane Park	1.25	Basketball Court, Benches, 5 to 12 Years Equipment	0.4 south	San Bruno

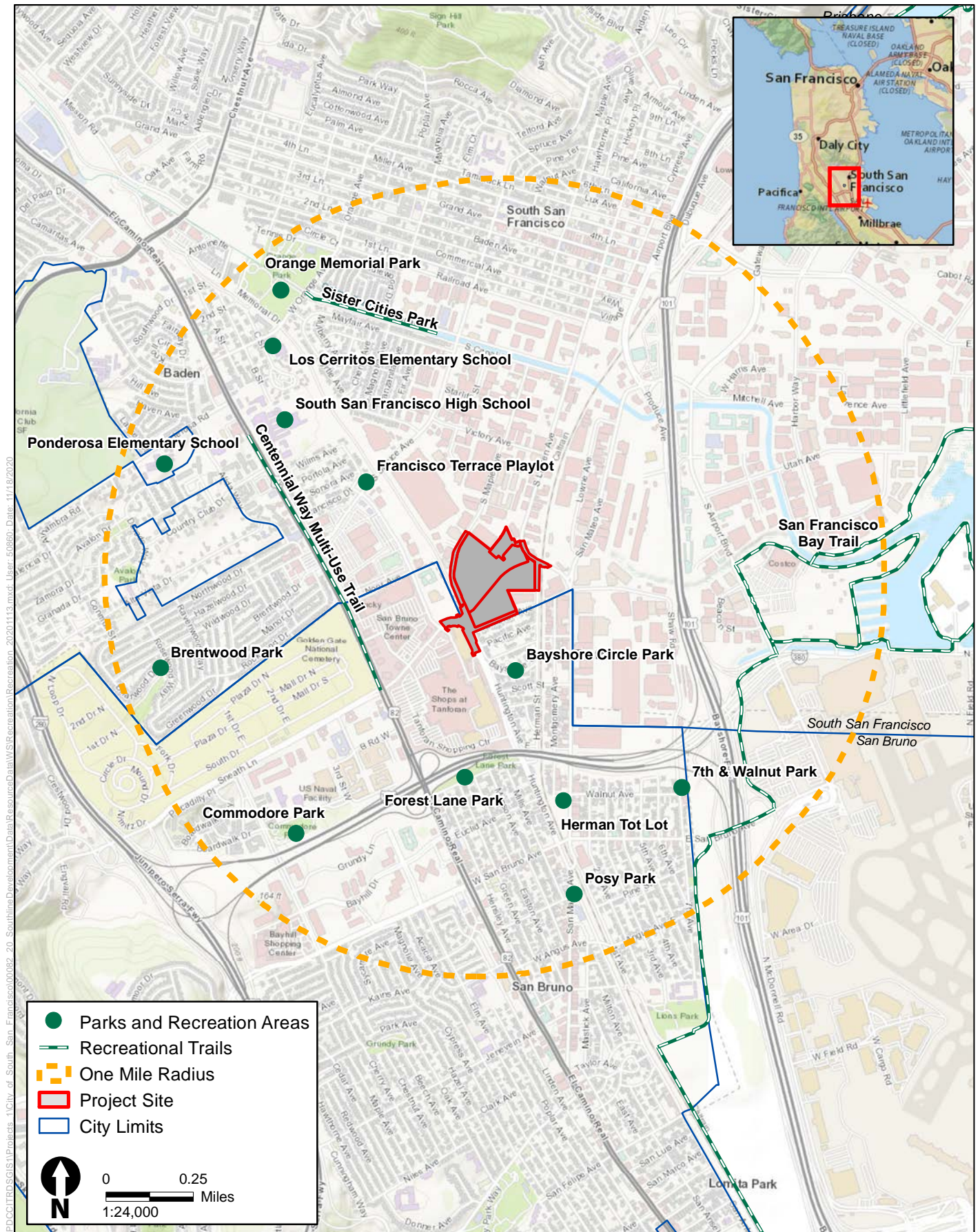
<sup>1</sup> City of South San Francisco Parks Division. 2020. *Parks*. Available: <https://www.ssf.net/departments/parks-recreation/parks-division>. Accessed: October 6, 2020.

<sup>2</sup> City of San Bruno. 2009. *City of San Bruno General Plan*. Public Facilities and Services Element. Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24021>. Accessed: October 7, 2020.

<sup>3</sup> In addition to the parks, recreational facilities, and open spaces listed in **Table 4.14-1**, a 1.3-acre park and the completion of Centennial Way Trail are currently under construction as part of Phase Two of the City's Community Civic Campus project, which is expected to be completed in Spring 2023. City of South San Francisco. 2020. *Phase Two of the Community Civic Campus Move Forward*. Available: <http://www.communityciviccampus.net/index.php/2-uncategorised/201-phase-two-of-the-community-civic-campus-moves-forward>. Accessed: February 8, 2020.

<b>Name</b>	<b>Size (acres)</b>	<b>Amenities</b>	<b>Approximate Distance from Project Site (mile)</b>	<b>City Jurisdiction</b>
San Francisco Bay Trail	10.3	Bicycle Pedestrian Trail, Picnic Tables, Barbeques, Benches	0.5 east	South San Francisco
South San Francisco High School	8.5	School facilities are open to the public under the Joint Use Agreement	0.5 northwest	South San Francisco
Sister Cities Park	1.7	Walking Trail, Benches	0.6 north	South San Francisco
Los Cerritos Elementary	1.5	School facilities are open to the public under the Joint Use Agreement	0.7 northwest	South San Francisco
Commodore Park	4	Baseball Field, Benches, Barbeque, Dog Park, Picnic Tables, Reservable Picnic Tables, Restrooms, Water, 5 to 12 Years Equipment	0.7 southwest	San Bruno
7 <sup>th</sup> & Walnut Park	0.5	Basketball Courts, Benches, Water, 5 to 12 Years Equipment	0.7 southwest	San Bruno
Orange Memorial Park	28	Children's Play Area, Community Building, Restrooms, Picnic Tables, Group Picnic Areas, Picnic Shelter, Tennis Courts, Ball Fields, Basketball Courts, Walking Trail, Soccer Field, Skate Park, Bocce Courts, Sculpture Garden	0.8 northwest	South San Francisco
Ponderosa Elementary School	6.0	School facilities are open to the public under the Joint Use Agreement	0.8 northwest	South San Francisco
Posey Park	0.25	Pocket Park with Benches	0.8 south	San Bruno
Brentwood Park	3.1	Open Turf, Children's Play Area, Restrooms, Picnic Tables, Tennis Court, Ball Field, Basketball Court, Walking Trail	0.9 west	South San Francisco

Sources: City of South San Francisco. 2020. Parks and Public Art Map. Available: <https://parksmap.ssf.net/>. Accessed: October 7, 2020; City of San Bruno. 2020. Park Amenities. Available: <https://www.sanbruno.ca.gov/documents/REC/Park%20Amenities%2010.01.20.pdf>. Accessed: October 7, 2020; City of South San Francisco. 2015. Parks and Recreation Master Plan. Available: <https://www.ssf.net/home/showdocument?id=498>. Accessed: October 7, 2020.



**Figure 4.14-1**  
Parks and Recreation Areas Within 1 Mile of the Project Site

### 4.14.3 Regulatory Framework

This section provides a summary of the recreation plans and policies of state and local agencies that have policy and regulatory control over the project site.

#### 4.14.3.1 State

##### Mitigation Fee Act

The Mitigation Fee Act (California Government Code Section 66000 et seq.), also known as Assembly Bill (AB) 1600, establishes development impact fees for residential and commercial development projects and permits local agencies to establish and collect a fee from development projects to cover the cost of public facilities required to serve the development project. The fee may include the cost of renovating existing facilities to maintain existing service or to improve service consistent with the City General Plan.<sup>4</sup>

#### 4.14.3.2 Local

##### South San Francisco General Plan

The 1999 South San Francisco General Plan provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The City General Plan contains a Parks, Public Facilities, and Services Element, which outlines policies relating to parks and recreation, educational facilities, and public facilities. The City General Plan includes the following policies and goals applicable to recreation:

- Policy 5.1-G-3: Provide a comprehensive and integrated network of parks and open space; improve access to existing facilities where feasible.
- Policy 5.1-I-2: Maintain parkland standards of 3.0 acres of community and neighborhood parks per 1,000 new residents, and of 0.5 acres of parkland per 1,000 new employees, to be located in employment areas.

The proposed project's consistency with applicable City General Plan policies is evaluated in Section 4.10, *Land Use and Planning*, of this EIR.

##### South San Francisco Parks and Recreation Master Plan

The City's Parks and Recreation Department manages parks and recreation centers within the City's boundaries. The master plan includes the following goals and implementing recommendations that are relevant to recreation:

- Goal 1: South San Francisco should provide a minimum of 3 acres of developed parkland per 1,000 residents, and 0.5 acres of parkland per 1,000 employees.
- Recommendation R-1.1 Provide 3 acres per 1,000 new residents of developed park land and 0.5 acres of parkland per 1,000 new employees.

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<sup>4</sup> Municipal Resource Group, LLC. 2016. *City of South San Francisco Park Land Acquisition and Park Construction Fees Quimby Act and Mitigation Fee Act Report*. Available: [https://solutions-mrg.com/wp-content/uploads/2018/05/SSF-Park-Fee-Report\\_MRG\\_3-17-16.pdf](https://solutions-mrg.com/wp-content/uploads/2018/05/SSF-Park-Fee-Report_MRG_3-17-16.pdf). Accessed: October 8, 2020.

- Goal 4: Incorporate innovative amenities to serve multiple user groups as new parks and facilities are developed or existing parks are renovated.
- Recommendation R-4.3 Open space requirements for new development should include consideration of program elements to meet the needs of multiple user groups.
- Recommendation R-4.4 Provide locations for active sports in employment areas.
- Goal 11: Incorporate sustainable features into parks and facilities to increase water conservation, energy efficiency, and habitat values; encourage non-motorized transportation; and educate about the environment.

### **South San Francisco Municipal Code, Title 8, Chapter 8.67**

Under South San Francisco Municipal Code, Title 8, Health and Welfare, Chapter 8.67, *Parks and Recreation Impact Fee*, the City established a parkland acquisition fee and a park construction fee applicable to qualifying development projects in furtherance of providing sufficient funding to achieve the City's goal of maintaining park service levels and providing adequate parks and recreational services and facilities to residents of the City. Per Section 8.67.010, the purpose of the parkland acquisition fee is to mitigate the impact of development projects by collecting sufficient funds to acquire property in the City and provide three acres of parkland per one thousand residents and one-half acres of parkland per one thousand new employees. The purpose of the park construction fee is to mitigate the impact of development projects on park facilities by collecting sufficient funds to construct adequate park facilities and improvements in the City; refurbish and expand existing facilities; and provide three acres of parkland per one thousand residents and one-half acres of parkland per one thousand new employees. As a qualifying nonresidential development project for purposes of Chapter 8.67, the proposed project would be subject to those requirements.

### **San Bruno General Plan**

The San Bruno General Plan Open Space and Recreation Element outlines various goals, policies, and implementing programs relevant to parks and recreation. The Open Space and Recreation Element contains guiding policies and implementing policies regarding parks and recreation, park maintenance and improvements, open space, and multi-use trails. These policies are related to providing park and open space in San Bruno for San Bruno users, and are therefore not relevant to this analysis, which focuses on the demand generated by project employees and employee population on San Bruno parks and recreational facilities. -

## **4.14.4 Impacts and Mitigation Measures**

This section describes the impact analysis related to recreation for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

### **4.14.4.1 Significance Criteria**

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant recreation impact if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities or the need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives;

- 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; or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

#### 4.14.4.2 Approach to Analysis

Evaluation of the proposed project is based on considering how employee population growth resulting from implementation of the proposed project, including Phase 1, would affect parks and recreational facilities in South San Francisco and San Bruno. The analysis uses employee population growth estimates presented in Section 4.12, *Population and Housing*, of this EIR to determine the extent to which the project could generate additional demand on parks and recreational facilities in the area. For the purpose of evaluating the project's impact on the City's ability to achieve its parkland goal of 3 acres of developed parkland per 1,000 residents and 0.5 acres of parkland per 1,000 employees, this analysis assumes that all employee population growth resulting from the project occurs in South San Francisco. Since the goal explicitly identifies developed parkland,<sup>5</sup> undeveloped open space (i.e., Sign Hill Park or Bayfront Linear Park Open Space) is not included in the service ratio calculation. Consequently, there is approximately 173 acres of developed parkland provided in the City.<sup>6</sup>

As discussed in Section 4.12, *Population and Housing*, of this EIR, additional project-related growth is likely to occur outside of South San Francisco, particularly in the San Francisco-Oakland-Hayward core-based statistical area (CBSA), which comprises Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties.<sup>7</sup> Therefore, this analysis also includes a qualitative evaluation of the project's potential impacts on San Bruno parks and recreational facilities, given the Specific Plan area's location along the border of South San Francisco and San Bruno.

The analysis also considers whether environmental impacts would result from development of the proposed open space improvements that would be incorporated as part of the proposed project, all of which would be located in the City of South San Francisco.

The proposed project would also include the construction of off-site improvement areas comprised of transportation, circulation, and infrastructure improvements at several locations in the City of San Bruno. However, as none of these improvements would include recreational amenities or generate a permanent demand for recreational facilities, the analysis of impacts related to the off-site improvements focuses on temporary construction impacts.

#### Buildout Scenario Studied (Office Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow development of the commercial campus as either office or R&D uses, or a combination of both, up to 2,800,000 square feet. For the purposes of the program-level EIR analysis, two projected buildout scenarios were identified that would represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences

<sup>5</sup> Although "developed" parkland is only explicitly stated for the residential portion of the goal, the City interprets this meaning to also apply to the employee portion of the goal.

<sup>6</sup> South San Francisco General Plan Update, Existing Conditions Report, Parks + Public Facilities, November 2019.

<sup>7</sup> The United States Office of Management and Budget defines a CBSA as a multi-county area anchored by an urban center of at least 10,000 people plus adjacent counties that are socioeconomically tied to the urban center by commuting. The San Francisco-Oakland-Hayward CBSA comprises Alameda, Contra Costa, Marin, San Francisco and San Mateo counties.

Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, 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.

This section analyzes the build out scenario which represents the “worst-case” scenario for recreation. Of the two scenarios, the Office Scenario would construct the largest amount of square footage and has a higher employment density than the Life Sciences Scenario and would generate the greatest number of new employees. Therefore, the Office Scenario is evaluated in this Recreation analysis. As discussed in Section 4.12, *Population and Housing*, of this EIR, implementation of the Office Scenario would result in a direct increase of approximately 10,745 net new employees in the Specific Plan area, and an indirect increase of approximately 1,705 new residents in South San Francisco when accounting for employees who relocate with their household members to live closer to the project. Approximately 2,349 of the 10,745 employees and 366 of the 1,705 residents would be associated with Phase 1.

#### 4.14.4.3 Impact Evaluation

**Impact REC-1: The project would not require the provision of new or physically altered park facilities in order to maintain acceptable service ratios or other performance objectives.  
(Project: Less than Significant; Phase 1: Less than Significant)**

##### Project

##### *Construction*

Construction of the proposed project would create construction jobs on the project site, including the Specific Plan area and off-site improvement areas. The number of construction workers on-site would vary according to the stage of construction. Site workers may utilize nearby parks and open spaces during breaks. The nearest recreational facilities to the project site that construction workers are most likely to use include: the Centennial Way Multi-Use Trail, immediately west in the City of South San Francisco; the Bayshore Circle Park, 0.1 mile south in the City of San Bruno; and the Francisco Terrace Playlot, located 0.3 mile northwest in the City of South San Francisco. However, such use would most likely be modest given the number of workers associated with the proposed project and the typical durations of lunch and rest breaks. Therefore, although construction of the proposed project could incrementally increase the demand for parks and recreational facilities in both South San Francisco and San Bruno during the duration of project construction, project construction would not result in the need for new parks or recreational facilities in order to maintain acceptable service ratios. The impact would be ***less than significant***. No mitigation measures are required.

##### *Operation*

As discussed in Section 4.12, *Population and Housing*, of this EIR, the Specific Plan under the Office Scenario could generate up to approximately 10,745 net new employees and 1,705 new employee-generated residents by 2030. The proposed project would not include any residential uses. Therefore, the project’s contribution to an increase in demand for parks and recreational facilities would be attributable to its employment population and the indirect growth in residential population resulting from project employment.

As described above, the City of South San Francisco Parks and Recreation Department manages over 270 acres of parks and open space parks and outdoor recreational facilities within the City, including 145 acres of 21 parks and playgrounds; over 80 acres of open space at Sign Hill Park, Oyster Point Marina, and a community garden; and 14 acres of athletic fields. In addition, as

mentioned above, the City's Joint Use Agreement with SSFUSD allows for the use of 13 school sites for access to an additional 95.8 acres of developed parkland space. The South San Francisco General Plan includes a parkland goal of 3 acres of developed parkland per 1,000 residents and 0.5 acres of parkland per 1,000 employees, which does not include undeveloped open space (i.e., Sign Hill Park or Bayfront Linear Park Open Space). The total amount of developed parkland in the City is approximately 173 acres.<sup>8</sup>

As described in further detail in **Table 4.12-1** in Section 4.12, *Population and Housing*, of this EIR, in 2020, the estimated population of South San Francisco is 67,879, with estimated growth to 76,200 by 2030; the projected number of jobs in the City in 2020 is 46,365 and in 2030 is estimated to grow to 51,000. Applying the General Plan's residential parkland goal, approximately 204<sup>9</sup> acres of parkland is required for the current Citywide residential population. Based on the General Plan's employee parkland goal of 0.5 acres per 1,000 employees, approximately 23<sup>10</sup> acres of parkland is required. Taken together, a total parkland demand of 227 acres<sup>11</sup> is needed to satisfy parkland demand based on estimated 2030 resident and employee population. With a total of approximately 173 acres of developed parkland currently provided in South San Francisco, the City currently falls short of the goal by approximately 54 acres.

The project's approximately 10,745 new employees would require 5.4 acres of parkland,<sup>12</sup> and the 1,705 new residents would require 5.1 acres of parkland,<sup>13</sup> for a total of 10.5 acres to meet the City's parkland goals. Thus, the project would exacerbate the City's current deficiency in developed parkland under its General Plan goals.

However, as described in Chapter 3, *Project Description*, of this EIR, the Specific Plan area would feature community amenities such as landscaping and open space, a network of pedestrian walkways and landscaped edges, "gateway" entries, lobby plazas, and two distinct open space/public realm areas: Southline Commons and the Tanforan Avenue Community Parklet. Southline Commons would be approximately 1.5 acres and would feature outdoor amenities, pedestrian paths, outdoor meeting and gathering spaces, casual dining areas, and space for recreation activities. The Tanforan Avenue Community Parklet would be 0.5 acres and would incorporate a walking pathway surrounded by landscaping, and would include active and passive recreational features, including a picnic area, a children's play area, a stormwater demonstration garden, and a fruit and vegetable garden. These open spaces areas, though privately owned, would be accessible to the public during business hours. These features would serve to offset the project's demand for public parks and recreational facilities, and would be consistent with General Plan Policy 5.1-G-3 and Parks and Recreation Master Plan Recommendations R-4.3 and R-4.4. In addition, as noted in Section 4.14.2, *Environmental Setting*, a 1.3-acre park and the completion of Centennial Way Trail are in development as part of Phase 2 of the City's Community Civic Campus Project, which will help address existing and future recreational needs. Furthermore, as set forth under Chapter 8.67 of the South San Francisco Municipal Code and as described above in Section 4.14.3, *Regulatory Framework*, the project would be required to pay parks and recreation impact fees as applicable to help the City achieve its goal of maintaining park service levels and providing adequate facilities, in order to help mitigate any impacts that may result from development projects. The fees paid by the project would be used by the City to construct adequate park facilities and improvements in the City or to refurbish and expand existing facilities. Payment of the development

<sup>8</sup> South San Francisco General Plan Update, Existing Conditions Report, Parks + Public Facilities, November 2019.

<sup>9</sup>  $(67,879 / 1,000) \times 3 = 203.6$

<sup>10</sup>  $(46,365 / 1,000) \times 0.5 = 23.2$

<sup>11</sup>  $203.6 + 23.2 = 226.8$

<sup>12</sup>  $(10,745 / 1,000) \times 0.5 = 5.4$

<sup>13</sup>  $(1,705 / 1,000) \times 3 = 5.1$

impact fee would address the project's share of impacts to the City's park and recreational facilities. Therefore, based on the above analysis, impacts on South San Francisco parks and recreational facilities would be less than significant.

While the project could also increase usage of parks and recreational spaces in the City of San Bruno, given the parks and open space available in South San Francisco, and the project's provision of on-site recreational amenities, which would offset demand for public parks and recreational facilities, any additional demand placed on San Bruno parks would be expected to be less than significant.

Based on the above analysis, it is anticipated that the proposed project would result in some increased demand and usage of parks and recreation facilities within the City and San Bruno, but the proposed project would not result in substantial adverse environmental impacts associated with the construction or alteration of park facilities to maintain acceptable service ratios or other performance objectives and this impact would be ***less than significant***. No mitigation is required.

### Phase 1

As described in Section 4.12, *Population and Housing*, Phase 1 would construct approximately 700,915 new square feet of office space and supporting amenity uses and would generate approximately 2,349 of the project's 10,745 net new employees and approximately 366 of the project's 1,705 employee-generated residents. The Tanforan Avenue Community Parklet would be developed during Phase 1, whereas Southline Commons would be developed in a future phase. Because Phase 1 is a component of the overall project, for the reasons stated above in the project analysis, Phase 1 would not result in substantial adverse environmental impacts associated with the construction or alteration of parks and recreational facilities to maintain acceptable service ratios, response times, or other performance objectives, and this impact would be ***less than significant***. No mitigation is required.

**Impact REC-2: 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; Phase 1: Less than Significant)**

### Project

#### Construction

Construction of the proposed project would create construction jobs on the project site. The number of construction workers on-site would vary according to the stage of construction. Site workers may utilize nearby parks and open spaces during breaks. The nearest recreational facilities to the project site that construction workers are most likely to use include: the Centennial Way Multi-Use Trail, immediately west in the City of South San Francisco; the Bayshore Circle Park, 0.1 mile south in the City of San Bruno; and the Francisco Terrace Playlot, located 0.3 mile northwest in the City of South San Francisco. However, use of these facilities and other nearby parks would most likely be modest given the number of workers associated with the proposed project and the typical durations of lunch and rest breaks. Therefore, although construction of the proposed project could incrementally increase demand for park services for the duration of construction, project construction would not result in substantial physical deterioration of park facilities. The impact would be ***less than significant***. No mitigation measures are required.

#### Operation

The project's generation of up to approximately 10,745 net new employees and 1,705 employee-generated residents could increase the use of the existing neighborhood and regional parks and

other recreational facilities described in **Table 4.14-1, p. 4.14-2**, and shown in **Figure 4.14-1, p. 4.14-4**. Employees on the project site, and residents and employees in the surrounding area, who use existing parks and recreational facilities may choose to visit the new facilities that would be provided within the proposed project. This could reduce the rate of deterioration of existing parks and recreational facilities near the project site. Furthermore, in accordance with the Chapter 8.67 of the South San Francisco Municipal Code, future development under the proposed project would be required to pay parks and recreation impact fees to help the City achieve its goal of maintaining park service levels and providing adequate facilities, in order to help mitigate any impacts that may result from development projects.

Although the number of park users is expected to increase as a result of the proposed project, such an increase, in and of itself, would not cause substantial physical deterioration of existing facilities or a need for new facilities to be constructed. Given the variety of nearby open space and recreational facilities and the proposed project's incorporation of on-site open space features intended to support recreation uses, as well as the payment of the parks and recreation impact fee, the increased usage of any one park by new employees at the project site would not be substantial. Therefore, the impacts related to the use of existing parks and recreational facilities would be **less than significant**. No mitigation measures are required.

### Phase 1

#### **Construction**

For the reasons stated above in the Project analysis, construction of Phase 1 would not result in substantial physical deterioration of park facilities. The impact would be **less than significant**. No mitigation measures are required.

#### **Operation**

As described in Section 4.12, *Population and Housing*, Phase 1 would construct approximately 700,915 new square feet of office space and supporting amenity uses, and would generate approximately 2,349 of the project's 10,745 net new employees and 366 of the project's 1,705 employee-generated residents. The Tanforan Avenue Community Parklet would be developed during Phase 1, whereas Southline Commons would be developed in a future phase. Because Phase 1 is a component of the overall project, for the reasons stated above in the project analysis, Phase 1 would not result in substantial physical deterioration of park facilities. The impact would be **less than significant**. No mitigation measures are required.

**Impact REC-3: 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: Less than Significant; Phase 1: Less than Significant)**

### Project

The Specific Plan area is located in an urbanized area surrounded by commercial, industrial and warehouse facilities, and residential uses. The proposed project would create new landscape and open space features which would consist of a continuous network of new and enhanced sidewalks and pathways, protected bike lanes, open space landscaped areas with native plants, and outdoor meeting and gathering spaces, casual dining areas, space for recreational activities, and social gathering spaces. The proposed project would feature a 1.5 acre central green space—referred to as Southline Commons—which would offer outdoor amenities accessible to both tenants and the public. It is envisioned to include pedestrian paths, outdoor meeting and gathering spaces, casual dining areas, and space for recreation activities. Another recreational feature would be the Tanforan Avenue Community Parklet. This parklet would be 0.5 acre and would incorporate a walking

pathway surrounded by landscaping and would include active and passive recreational features, including a picnic area, a children's play area, a stormwater demonstration garden, and a fruit and vegetable garden. Additional details pertaining to the proposed project's open space areas are described in 3.6.2.10 in Chapter 3, *Project Description*, of this EIR. These open space elements are evaluated as part of the project's construction throughout this EIR (e.g., refer to Section 4.2, *Air Quality*, Section 4.9, *Hydrology and Water Quality*, and Section 4.11, *Noise*). Overall, the proposed project would improve an existing, urbanized area with limited access for walking and bicycling with features that would enhance and expand recreational opportunities.

Any potential adverse effects from the incorporation of these open space features as part of the proposed project would result from the construction of the open space, such as noise or air quality impacts (e.g., site preparation; emissions of dust and other pollutants). These potential impacts are addressed throughout Chapter 4 of this EIR as part of the analysis of construction impacts for the proposed project as a whole, with mitigation measures provided as necessary. Overall, no significant physical effect on the environment associated with construction of these open space area is anticipated beyond any impacts already disclosed elsewhere in this EIR, and no long-term effects from physical operation of these facilities are anticipated. Therefore, construction of these recreational facilities in connection with the proposed project would have a ***less-than-significant*** impact on the environment. No mitigation measures are required.

#### Phase 1

Phase 1 would include open space, landscaping, and recreational areas as described in Section 3.6.3.3 in Chapter 3, *Project Description*, of this EIR. Like the proposed project, Phase 1 would be developed in an already urbanized area with limited access to recreational opportunities. The open space elements included in Phase 1, such as the Tanforan Avenue Community Parklet, are evaluated as part of the project's construction throughout this EIR. Potential adverse effects from construction of these spaces, such as noise or air quality impacts (e.g., site preparation; emissions of dust and other pollutants) are addressed throughout Chapter 4 of this EIR (e.g., refer to Section 4.2, *Air Quality*, Section 4.9, *Hydrology and Water Quality*, and Section 4.11, *Noise*). Therefore, the expansion of recreational facilities resulting from Phase 1 would have a ***less-than-significant impact*** on the environment. No mitigation measures are required.

#### 4.14.4.4 Cumulative Impacts

The geographic context for cumulative impacts related to parks and recreational facilities is the City, and service ratios by which demand is estimated are based on Citywide figures. Cumulative projects anticipated in the City of South San Francisco are shown in **Table 4.1-2** in Section 4.1, *Approach to Environmental Analysis*, of this EIR. These include 2,926 residential units, 87,815 square feet of commercial/retail space, 5.6 million square feet of office/R&D space, and 443 hotel rooms. To the extent project employees or associated household residents use parks in San Bruno, the cumulative context could include the City of San Bruno. As discussed in Section 4.1, *Approach to Environmental Analysis*, the Bayhill Specific Plan has been identified as a cumulative project in San Bruno.

**Impact C-REC-1: The Project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on recreation. (*Less than Cumulatively Considerable*)**

The project, inclusive of Phase 1, in combination with other past, present, and reasonably foreseeable projects, would increase the number of residents and employees in the area, leading to an increase in demand for parks and recreational facilities. The increase could result in a cumulative impact on public parks and recreational facilities in South San Francisco and San Bruno.

As discussed under Impacts REC-1, REC-2, and REC-3, the proposed project would not physically degrade any existing recreational resources, would not result in significant effects related to the construction of new open spaces, and would not increase demand for and use of either neighborhood parks or recreational facilities such that it would result in substantial physical deterioration. In addition, the cumulative projects, similar to the proposed project, would be required to pay the parks and recreation impact fee in accordance with Chapter 8.67 of the City's municipal code. Furthermore, community amenities provided by the proposed project, such as Southline Commons, Tanforan Community Parklet, and new landscaped areas, would help alleviate the use of public recreational resources. As with the proposed project, other development projects proposed or under consideration nearby would be required to include on-site recreational open space and amenities for the residents and employees who would occupy their developments. In addition, as noted in **Table 4.14-1, p. 2**, a 1.3-acre park and the completion of Centennial Way Trail are in development as part of Phase 2 of the City's Community Civic Campus Project, which will help address existing and future recreational needs. While the project could also increase usage of parks and recreational spaces in the City of San Bruno, given the parks and open space available in South San Francisco, and the project's provision of on-site recreational amenities, which would offset demand for public parks and recreational facilities, any additional demand placed on San Bruno parks would be expected to be minimal. For these reasons, the proposed project's contribution to cumulative impacts on recreation would be ***less than cumulatively considerable***.

## 4.15 Transportation and Circulation

### 4.15.1 Introduction

This section evaluates the potential impacts related to construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the proposed project (Phase 1), on transportation and circulation. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes the *Southline Draft Transportation Impact Analysis* (Transportation Impact Analysis) prepared for the proposed project by Fehr & Peers in June 2021 (**Appendix 4.15-1**).

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. NOP comments pertaining to transportation and circulation include the analysis of project effects on bicyclist and pedestrian conditions, transit service, freeway ramp queuing, and site circulation. These issues are addressed below in Section 4.15.4, *Impacts and Mitigation Measures*.

### 4.15.2 Environmental Setting

This section describes the setting for transportation and circulation in the vicinity of the project site, including the roadway network, transit network, transit service, conditions for bicyclists, and conditions for pedestrians. Descriptions provided in this section reflect conditions prior to the atypical changes associated with the COVID-19 pandemic, which has resulted in reduced vehicle travel and changes to transit services. Phase 1 and Project Buildout are anticipated to occur at a time when transportation conditions are closer to pre-COVID levels.

#### 4.15.2.1 Regional Setting

##### Roadway System

Key local roadways in the vicinity of the project site are described below and shown in **Figure 4.15-1, p. 4.15-3**.

- *Interstate (I) 380* is an approximately 1.7-mile-long, eight-lane freeway, linking I-280 (to the west) and U.S. 101 (to the east). I-380, which is approximately 0.5 mile south of the project site, is the closest freeway access route to the project site (via El Camino Real). Near the project site, I-380 carries about 170,000 vehicles per day.
- *I-280* is an eight-lane, north-south freeway connection between San Francisco to San José that follows the western urbanized edge of the San Francisco Peninsula. At the freeway's northern and southern endpoints, the route serves Daly City, Colma, and southwestern San Francisco neighborhoods. I-280 is approximately 1.25 miles west of the project site. Near the project site,

I-280 carries about 200,000 vehicles per day. I-280 may be accessed via ramps at Sneath Lane and San Bruno Avenue.

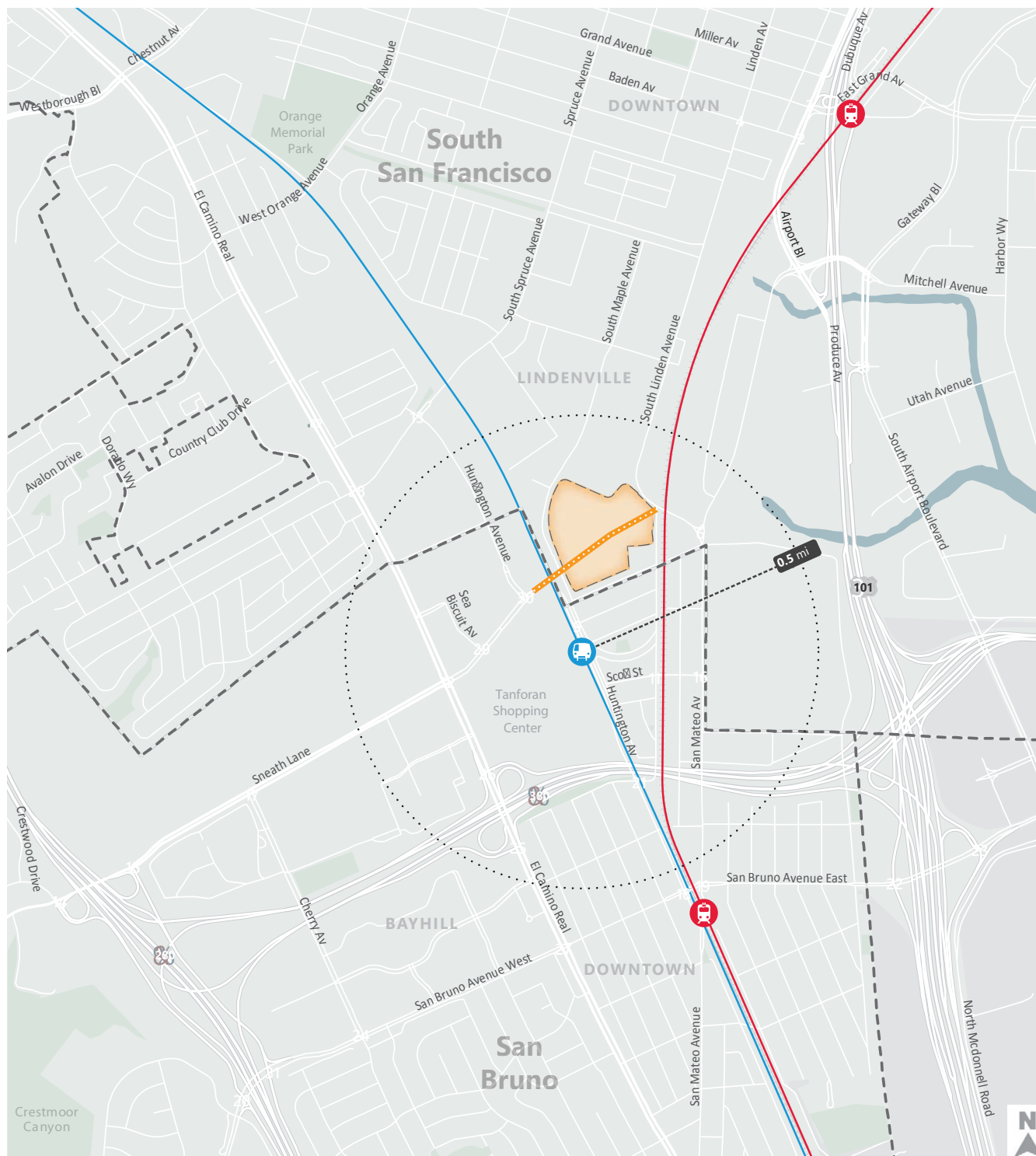
- *U.S. 101* is an eight-lane freeway and the principal north–south connection between San Francisco, San José, and intermediate San Francisco Peninsula cities. U.S. 101 is approximately 0.5 mile east of the project site. Near the project site, U.S. 101 carries about 265,000 vehicles per day. U.S. 101 may be accessed via ramps at San Bruno Avenue, Produce Avenue/South Airport Boulevard, and Grand Avenue.
- *El Camino Real (State Route [SR] 82)* is a north–south arterial roadway and state highway that spans the San Francisco Peninsula between San Francisco and San José. It has six travel lanes in the vicinity of the project site; it connects with I-380 approximately 0.5 mile from the project site, providing regional vehicle access from all directions. El Camino Real carries about 45,000 vehicles per day.

## Transit System

The project site is served by the San Bruno Bay Area Rapid Transit (BART) station; the station is located across Huntington Avenue and within 0.5 mile of all buildings on the project site. San Mateo County Transit District (SamTrans) buses serve the San Bruno BART station via the co-located SamTrans Transit Center. The project site is also approximately 0.75 mile from the San Bruno Caltrain station, and approximately 1.5 miles from the South San Francisco Caltrain station. Existing transit services are shown in **Figure 4.15-2, p. 4.15-4**, and are described in detail below.

The following transit services operate within South San Francisco and San Bruno in proximity to the project site:

- *BART* provides regional rail service between the East Bay, San Francisco, and San Mateo County, connecting San Francisco International Airport (SFO) and the Millbrae intermodal station to the south to the city of San Francisco to the north and the cities of Oakland, Richmond, Pittsburg/Bay Point, Dublin/Pleasanton, and Fremont in the East Bay. The San Bruno station is adjacent to the project site. During peak weekday commute periods, the station is served by the Richmond-Millbrae and the Antioch-SFO lines, both of which operate with 15-minute headways, with a combined headway of 7.5 minutes throughout the day. During off-peak periods, the station is served by the Antioch-SFO line, which operates every 20 minutes.



- Project Site
- New Street - Southline Avenue
- City Boundary
- BART Station
- Caltrain Station

Source: Fehr & Peers, 2021.

**Figure 4.15-1**  
**Project Location Map**



**SamTrans Peak Period Frequency**

- Every 15 minutes or less
- Every 20 - 30 minutes
- Greater than 30 minutes

**Other Transit Service**

- - - BART
- - - Caltrain
- - - Free South City Shuttle
- - - Bayhill Shuttle

- Project Site
- - - Southline Avenue

Source: Fehr & Peers, 2021.

**Figure 4.15-2  
Existing Transit Services**

- *Caltrain* provides passenger rail service on the Peninsula between San Francisco and San José as well as trains with limited service to Morgan Hill and Gilroy during the weekday commute periods. Caltrain operates five trains per hour in each direction during peak periods. The Peninsula Corridor Electrification Project is currently under construction to increase Caltrain service levels to six trains per hour in each direction during peak periods and provide faster, more frequent service. The Peninsula Corridor Electrification Project is anticipated to be completed by 2022. The project site is near two Caltrain stations.
  - *South San Francisco Caltrain Station:* This station is approximately 1.5 miles north of the project site at 590 Dubuque Avenue, on the east side of U.S. 101, just north of East Grand Avenue. In 2021, Caltrain will relocate the station to an area near the intersection of Grand Avenue and Airport Boulevard. Once relocated, the South San Francisco Caltrain station will be served by 23 northbound and 23 southbound local or limited train lines during a typical weekday. Service is expected to increase upon completion of the Peninsula Corridor Electrification Project in 2022.
  - *San Bruno Caltrain Station:* This station is approximately 0.75 miles south of the project site, at the intersection of San Bruno Avenue and Huntington Avenue, within downtown San Bruno. The station is served by 26 northbound and 26 southbound local or limited train lines during a typical weekday. Service is expected to increase upon completion of the Peninsula Corridor Electrification Project in 2022.
- *SamTrans*, which provides bus service in San Mateo County, serves the SamTrans Transit Center at the San Bruno BART station, adjacent to the project site. The SamTrans Transit Center is less than 0.5 mile from all proposed buildings at the project site and served by routes ECR, 140, 141, and 398. A shuttle to the Bayhill Office Park in San Bruno from the SamTrans Transit Center also operates during peak periods. SamTrans services and average peak-hour frequencies are summarized in **Table 4.15-1, p. 4.15-5**.

**Table 4.15-1. BART and SamTrans Service at the San Bruno BART Station**

Route	Service Endpoints	Service Span	Average Peak Hour Frequency
BART Red Line	Richmond Station-Millbrae Station via Oakland and San Francisco	5:15 a.m. to 12:00 a.m. (northbound); 6:00 a.m. to 1:30 a.m. (southbound)	15 minutes
BART Yellow Line	Pittsburg Bay Point and Antioch Stations-SFO Station via Oakland and San Francisco	5:15 a.m. to 12:00 a.m. (northbound); 6:00 a.m. to 1:30 a.m. (southbound)	15 minutes
SamTrans ECR	Daly City BART/Palo Alto Transit Center via El Camino Real	5:15 a.m. to 1:00 a.m.	15 minutes
SamTrans 140	Pacifica/SFO	6:30 a.m. to 12:00 a.m.	30 minutes
SamTrans 141	Shelter Creek (San Bruno) /Airport and Linden (South San Francisco)	6:45 a.m. to 7:45 p.m.	30 minutes

Route	Service Endpoints	Service Span	Average Peak Hour Frequency
SamTrans 398	Redwood City Transit Center /Downtown San Francisco	5:00 a.m. to 11:00 p.m.	60 minutes
Bayhill Shuttle	San Bruno BART Station to Bayhill Office Park	7:00 a.m. to 10:00 a.m.; 4:00 p.m. to 6:40 p.m.	15 minutes

Notes: Table summarizes conditions prior to COVID-19. The Bayhill Shuttle is operated independently through SamTrans' shuttle program and is open to the public.

Source: Fehr & Peers; SamTrans 2021.

#### 4.15.2.2 Project Site

The project site is located at the northeast corner of the intersection of Sneath Avenue and Huntington Avenue in South San Francisco, at the City's boundary with the City of San Bruno. Certain roadway facilities that serve the project site are located within South San Francisco, whereas others are located within San Bruno. Under existing conditions, the project site is not accessible from Huntington Avenue because there is no vehicular connection to Tanforan Avenue. Instead, regional access to the site under existing conditions is provided via U.S. 101 and I-380, with vehicles connecting to Maple Avenue, Dollar Avenue, or South Linden Avenue via surface streets. **Figure 4.15-1, p. 4.15-3**, shows the project location and the surrounding roadway system.

#### Roadway System

Key local roadways in the vicinity of the project site are described below.

- *Huntington Avenue* is a north-south arterial and local roadway in San Bruno that parallels the Caltrain corridor between Sneath Lane to the north and San Felipe Avenue to the south. The City of San Bruno General Plan classifies the roadway as an arterial between Sneath Lane and San Mateo Avenue and a local street south of San Mateo Avenue. Huntington Avenue East is a one-way residential street that runs alongside Huntington Avenue.
- *South Linden Avenue* is a north-south collector roadway in South San Francisco. It connects downtown South San Francisco to the north (at Airport Boulevard) to the Lindenville area and San Bruno to the south (at San Mateo Avenue). South Linden Avenue includes an at-grade Caltrain rail crossing.
- *Sneath Lane* is an east-west local and arterial roadway in San Bruno that connects the Sweeny Ridge open space to the west to Huntington Avenue to the east. It intersects and provides access to three major north-south regional roadways: Skyline Boulevard (SR-35), I-280, and El Camino Real (SR-82); it is also one of the primary roadways for accessing project site. The City of San Bruno General Plan classifies the roadway as an arterial east of SR-35 and a local street west of SR-35.
- *San Bruno Avenue* is a four-lane, east-west arterial roadway in San Bruno. San Bruno Avenue provides freeway access to both I-280 and U.S. 101.
- *South Maple Avenue* is a two-lane, north-south collector street in South San Francisco that provides access primarily to destinations within the Lindenville industrial district between South Canal Street to the north and Tanforan Avenue to the south. The roadway provides direct access to the project site's northern and western edges.

- *Dollar Avenue* and *Herman Street* are two-lane, north-south collector streets in South San Francisco and San Bruno, respectively. They run alongside the Caltrain corridor and the eastern edge of the project site, connecting to South Linden Avenue and Huntington Avenue. Dollar Avenue and Herman Street function as the primary connection between Lindenville and San Bruno west of the Caltrain corridor.
- *Scott Street* is a two lane, east-west local street in San Bruno, connecting to Herman Street and San Mateo Avenue. Scott Street includes an at-grade Caltrain rail crossing.
- *Tanforan Avenue* is a two-lane local street at the border of South San Francisco and San Bruno that connects to Maple Avenue and Dollar Avenue/Herman Street. Tanforan Avenue serves a mix of local residential trips as well as truck trips to industrial sites in Lindenville.

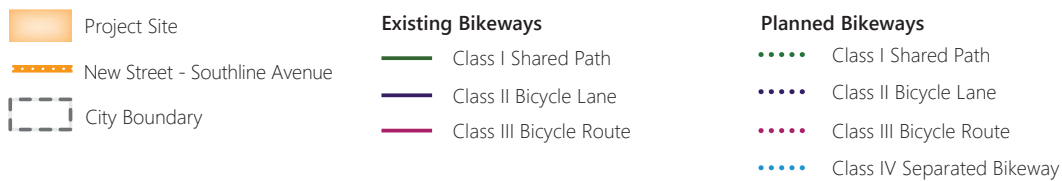
## Pedestrian and Bicycle Network

Pedestrian facilities include sidewalks, crosswalks, trails, and pedestrian signals. Bicycle facilities consist of separated bikeways, bicycle lanes, routes, trails, and paths, as well as bicycle parking, bicycle lockers, and showers for cyclists. Caltrans recognizes four classifications of bicycle facilities:

- Class I – Shared-Use Pathway: Provides a completely separated right-of-way for the exclusive use of cyclists and pedestrians.
- Class II – Bicycle Lane: Provides a striped lane for one-way travel on a street or highway. May include a “buffer” zone consisting of a striped portion of roadway between the bicycle lane and the nearest vehicle travel lane.
- Class III – Bicycle Route: Provides for shared use with motor vehicle traffic; however, are often signed or include a striped bicycle lane.
- Class IV – Separated Bikeway: Provides a right-of-way designated exclusively for bicycle travel adjacent to a roadway and which are protected from vehicular traffic. Types of separation include, but are not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

The following pedestrian and bicycle facilities are present at or adjacent to the project site. Existing and proposed bicycle facilities are shown on **Figure 4.15-3, p. 4.15-8**.

- *Sneath Lane* in San Bruno has sidewalks on both sides of the street and intermittent Class II bicycle lanes. Bicycle lanes are present west of El Camino Real and along a two-block segment between Sea Biscuit Avenue to Huntington Avenue, but a gap occurs between El Camino Real and Sea Biscuit Avenue.
- *The Centennial Way Trail* is a Class I shared pedestrian and bicycle pathway in South San Francisco along the BART tunnel alignment. It connects the South San Francisco BART Station with schools, parks, and neighborhoods within the City. It presently terminates adjacent to the Specific Plan area about 400 feet north of the San Bruno BART Station.
- *Huntington Avenue* is a designated Class III bicycle route in San Bruno and South San Francisco and has sidewalks on both sides of the street.
- *Tanforan Avenue* is a designated Class III bicycle route and has sidewalks on both sides of the street.



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- *South Linden Avenue* is a designated Class III bicycle route with sidewalks on both sides of the street.
- *Dollar Avenue/Herman Street* is a designated Class III bicycle route and has sidewalks on the west side of the street only.
- *Maple Avenue* is not designated as a bicycle facility and has a sidewalk along the east side of the street only alongside the Specific Plan area.

Under existing conditions, the project site is located in a mostly auto-oriented industrial and commercial area with several barriers to walking and bicycling, as shown in **Figure 4.15-4, p. 4.15-10**. Specifically, the following challenges to bicycle and pedestrian circulation exist:

- *Access barriers to the San Bruno BART Station:* When exiting the San Bruno BART Station walking or bicycling toward the project site, pedestrians and bicyclists encounter Huntington Avenue, a wide multilane arterial street with narrow sidewalks and no dedicated bicycle facilities. There is no marked crosswalk directly connecting the BART Station entrance and the eastern sidewalk along Huntington Avenue, so pedestrians instead must cross two legs of the intersection to walk across the street. Both crosswalks have actuated pedestrian crossings, which add delay to pedestrians by defaulting to a “Don’t Walk” signal during a green light unless a button is pushed in advance.
- *Centennial Way Trail Gap:* The Centennial Way Trail terminates 400 feet north of the San Bruno BART station and connects to the narrow sidewalk on the east side of Huntington Avenue. Pedestrians and bicyclists share this narrow sidewalk space, which meanders alongside Huntington Avenue and Huntington Avenue East with relatively abrupt changes in grade.
- *Narrow sidewalks with obstructions, limited pedestrian-scaled lighting, unmarked crosswalks, and lack of accessible curb ramps:* Although sidewalks are present on most streets in the vicinity of the project site, pedestrians contend with indirect routes along narrow facilities that at times are inaccessible to mobility-impaired pedestrians. Areas of particular concern related to the project include: the grade changes for the narrow eastern sidewalk along Huntington Avenue, the lack of curb ramps and marked crosswalks across Tanforan Avenue and Maple Avenue, the lack of a direct pedestrian and bicycle crossing between the Centennial Way Trail and SamTrans Transit Center at the San Bruno BART Station, and the omission of a southern crosswalk across Huntington Avenue at the San Bruno BART Station entrance.
- *Lack of bicycle connectivity:* Some bicycle trail and bicycle lane facilities are present near the project site, as shown in **Figure 4.15-3, p. 4.15-8**. However, there is limited connectivity between dedicated bicycle facilities and to major destinations. For example, bicycle lanes along Sneath Lane do not connect to the Centennial Way Trail; the Centennial Way Trail does not connect to the San Bruno BART Station or elsewhere in San Bruno; and there is no dedicated connection between the project site and downtown South San Francisco. Consequently, bicyclists who seek to access the project site must share street space with cars and trucks operating on streets with posted speed limits of 25 to 30 miles per hour.

## Emergency Vehicle Access

Emergency vehicle access is provided to the project site via South Linden Avenue, Tanforan Avenue, and Maple Avenue. The closest fire station is South San Francisco Fire Station 61 at 480 North Canal Street. The closest hospital is the Kaiser Medical Center at 1200 El Camino Real in South San Francisco.



 Specific Plan Area

Source: Fehr & Peers, 2021.

**Figure 4.15-4**  
**Existing Pedestrian Circulation Barriers**

### 4.15.3 Regulatory Framework

This section provides a summary of the transportation and circulation plans and policies of the City of South San Francisco and the City of San Bruno, as well as regional, state, and federal agencies that have policy and regulatory control over the project site and surrounding areas.

Certain circulation facilities that serve the project site are located within South San Francisco, whereas others are located within San Bruno. Each city has jurisdiction over its respective roadways, and bicycle and pedestrian facilities. Several regional agencies, including C/CAG, the Congestion Management Agency in San Mateo County, and the Metropolitan Transportation Commission (MTC), coordinate and establish policy and funding priorities for intra-regional transportation improvement programs. Freeways serving South San Francisco (US 101, I-380 and I-280), associated local freeway ramps and local surface highway segments are under the jurisdiction of the State of California Department of Transportation (Caltrans). Transit service providers such as BART, Caltrain, and SamTrans, have jurisdiction over their respective services. These agencies and their responsibilities are more specifically described below.

#### 4.15.3.1 Federal

##### **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 to ensure accessibility for persons with disabilities 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 zones where there is no curb, a clear zone of 48 inches for the pedestrian travel way, and a vibration-free zone for pedestrians.

#### 4.15.3.2 State

##### **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 the project site vicinity. 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, described below.

##### **Assembly Bill 32 and Senate Bill 375**

With the passage of Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, the state 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 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-duty 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 guides 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 2040), 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 issues regarding 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 transportation corridors.

### **Senate Bill 743**

As described in Section 4.1, *Approach to Environmental Analysis*, and Section 4.10, *Land Use and Planning*, Senate Bill (SB) 743,<sup>1</sup> was signed into law in 2013 and is codified in Section 21099 of the California Public Resources Code with the intent to better align CEQA transportation impact analysis practices and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation.

SB 743 created several key statewide changes to CEQA, as described in the EIR sections referenced above. This discussion focusses on changes related to the assessment of transportation and parking impacts under CEQA.

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<sup>1</sup> Full text of SB 743 available at: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201320140SB743](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743). Accessed February 25, 2021.

As required by SB 743, the Office of Planning and Research (OPR) amended CEQA Guidelines Section 15064.3 to provide an alternative to automobile delay, as described by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, for evaluating traffic impacts of proposed projects. The new metric, vehicle miles traveled (VMT), measures the total number of miles traveled by vehicles daily on the roadway network and thereby the impacts on the environment from those miles traveled (e.g., through GHG emissions). 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 on the environment, particularly as it relates to GHG emissions. Land use projects with one or more of the following characteristics would generally have lesser VMT impacts relative to projects without these characteristics:

- A mix of project uses;
- Support for a citywide jobs/housing balance;
- Proximity to high-quality transit service; and
- Locations in highly walkable or bikeable areas.

Additionally, CEQA Guidelines Section 15064.3 states that lead agencies generally should presume that projects within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT. This presumption would not apply, however, if project-specific or location-specific information indicates that the project will still generate significant levels of VMT. For transportation infrastructure projects, such as a street extension, projects that reduce or have no impact on VMT are presumed to have a less-than-significant impact on VMT.

This shift in transportation impact criteria is expected to align transportation impact analysis and mitigation outcomes with state goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Although OPR provides recommendations for adopting new VMT analysis guidelines, lead agencies retain discretion in designing their methodology. Lead agencies must select their preferred method for 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. To aid in SB 743 implementation, the following state guidance has been produced:

- OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*<sup>2</sup>
- California Air Resources Board's (CARB's) *2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*<sup>3</sup>

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<sup>2</sup> Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December. Available: [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf). Accessed: September 21, 2021.

<sup>3</sup> California Air Resources Board. 2017. *2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*. January. Available: <https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate>. Accessed: September 21, 2021.

- California Department of Transportation’s (Caltrans’) *Local Development–Intergovernmental Review Program Interim Guidance, Implementing Caltrans Strategic Management Plan 2015–2020 Consistent with SB 743*<sup>4</sup>

On June 10, 2020, the City of South San Francisco adopted Resolution 77-2020 establishing VMT thresholds and methodology effective July 1, 2020. The VMT thresholds applied in this analysis are further described in Section 4.15.4.1, *Significance Criteria*, p. 4.15-22.

Lastly, SB 743 establishes that aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects, provided the project meets the following criteria established under Public Resources Code Section 21099:

- The project is on an infill site.<sup>5</sup>
- The project is in a Transit Priority area (TPA).<sup>6</sup>
- The project is a residential, mixed-use residential, or employment-center project.<sup>7</sup>

The proposed project meets the above criteria as a qualifying employment-center project for purposes of Public Resources Code Section 21099. The Specific Plan area is a qualifying infill site that is currently developed with existing various office, industrial, warehouse, and storage facilities. Further, due to the project site’s proximity to the San Bruno BART station and qualifying SamTrans bus routes, the entire project site is located within a TPA. Because the project meets the three criteria above, this EIR does not consider aesthetics or parking in determining the significance of impacts under CEQA.

### 4.15.3.3 Regional

#### Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the Bay Area’s regional transportation planning agency and federally designated MPO. The MTC is responsible for preparing the RTP, a comprehensive blueprint for the development of mass transit as well as highway, airport, seaport, railroad, bicycle, and pedestrian facilities. The RTP, which is a 20-year plan, 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 on a realistic forecast of future revenues, and the transportation projects, taken as a whole, must help improve regional air quality. The MTC also screens requests from local agencies for state and federal grants for transportation projects to determine compatibility with the RTP.

<sup>4</sup> California Department of Transportation. 2016. *Local Development–Intergovernmental Review Program Interim Guidance, Implementing Caltrans Strategic Management Plan 2015–2020 Consistent with SB 743*. November. Available: <https://advocacydev.calchamber.com/wp-content/uploads/2014/2016/10/LDIGRInterimGuidanceApproved.pdf>. Accessed: September 21, 2021.

<sup>5</sup> An “infill site” is a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses. (Public Resources Code section 20199(a)(4))

<sup>6</sup> A TPA is an area within 0.5 mile of a major transit stop that is existing or planned. (Public Resources Code section (a)(7))

<sup>7</sup> An “employment center project” is 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 TPA. (Public Resources Code section (a)(1))

**Plan Bay Area 2040**

Plan Bay Area 2040 is overseen by the 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. Plan Bay Area 2040 was adopted by ABAG and the MTC in July 2017. Major projects included in Plan Bay Area 2040 include high-speed rail along the Caltrain corridor, Caltrain electrification, express lanes on U.S. 101 in San Mateo County, and improvements to local and express bus services.

**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, which identifies 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.

**City/County Association of Governments of San Mateo County**

As the designated Congestion Management Agency, the City/County Association of Governments of San Mateo County (C/CAG) has primary responsibility for administering the state-mandated Congestion Management Program. C/CAG of San Mateo County-designated components of the Congestion Management Program roadway system in the cities of South San Francisco and San Bruno include SR 82 (El Camino Real), U.S. 101, I-380, and I-280.

C/CAG of San Mateo County has adopted guidelines as a part of its Congestion Management Plan (CMP), which are intended to reduce the regional traffic impacts of substantive new developments. The guidelines apply to all projects in San Mateo County that will generate 100 or more net new peak hour trips on the CMP network and are subject to CEQA review. C/CAG of San Mateo County calls for projects that meet the criteria to determine if a combination of acceptable measures is possible that has the capacity to "fully reduce," through the use of a trip credit system, the demand for net new trips that the project is anticipated to generate on the CMP roadway network (including the first 100 trips). C/CAG of San Mateo County has published a list of mitigation options in a memorandum. South San Francisco's TDM ordinance is consistent with C/CAG of San Mateo County's ordinance, so by adhering to the City's ordinance, the proposed project would also be compliant with C/CAG of San Mateo County's guidelines for new development.

The C/CAG of San Mateo County 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 the MTC and ABAG. The current version of the plan, adopted in February 2017, looks at a horizon year of 2040. The C/CAG of San Mateo County also partners with local jurisdictions and

other transportation agencies to develop transportation plans and studies for areas as well as projects with countywide and regional significance.

### **The San Mateo County Transit District**

SamTrans is the administrative body for the principal public transit and transportation programs in San Mateo County (i.e., SamTrans bus service, including Redi-Wheels and RediCoast paratransit service; Caltrain commuter rail; and San Mateo County Transportation Authority operations). Caltrain and the San Mateo County Transportation Authority have contracted with SamTrans, which serves as their managing agency under the direction of their appointed boards.

### **Peninsula Corridor Joint Powers Board**

The Peninsula Corridor Joint Powers Board (JPB) owns and operates Caltrain. The JPB consists of representatives from San Francisco, San Mateo and Santa Clara counties. Caltrain's Strategic Plan establishes a common vision for the agency, and frames key policy, service and investment decisions. The most recent Strategic Plan was adopted by the Board on September 4, 2014.

### **Bay Area Rapid Transit**

Bay Area Rapid Transit (BART) has authority over rail service and facilities spanning its services in the East Bay, San Francisco, and San Mateo County. BART's Transit Oriented Development (TOD)<sup>8</sup> Policy informs BART's internal and external approach to development near BART stations.

## **4.15.3.4 Local**

### **City of South San Francisco Plans and Policies**

#### **City General Plan Policies**

The 1999 South San Francisco General Plan provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. Under City General Plan, the proposed Specific Plan area is in the Lindenville Planning Sub-Area. The City General Plan includes a number of policies to encourage redevelopment and infrastructure improvements in the Lindenville Planning Sub-Area, such as providing better connectivity to the San Bruno BART station, including via an extension of Sneath Lane through the Specific Plan area. The City General Plan contemplates a new east-west street that would bisect the Specific Plan area and create a connection between Sneath Lane and South Linden Avenue, serving as the gateway between downtown and the San Bruno BART station, as shown in **Figure 4.15-5, p. 4.15-17**.

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<sup>8</sup> BART Transit-Oriented Development Policy, Amended April 23 2020  
[https://www.bart.gov/sites/default/files/docs/BART%20Transit-Oriented%20Development%20Policy\\_Amended2020-04-23.pdf](https://www.bart.gov/sites/default/files/docs/BART%20Transit-Oriented%20Development%20Policy_Amended2020-04-23.pdf). Accessed September 21, 2021.



Source: Fehr & Peers, 2021.

**Figure 4.15-5**  
**South San Francisco General Plan – Proposed Streets**

The following City General Plan transportation policies are related to the project.<sup>9</sup> A new 2040 General Plan (Shape SSF) is currently being prepared by the City; however, the City has not yet adopted new policies.

3.2-G-2: Develop new streets and through connections to facilitate truck movement; improve access to U.S. 101, and provide better connectivity between the proposed San Bruno BART station and downtown.

3.2-G-3: Enhance the appearance of the area by undertaking streetscape and other improvements.

3.2-I-14: Provide new street extensions in Lindenville, as outlined in Chapter 4: Transportation, including extension of South Linden Avenue to the San Bruno BART station. 4.2-G-2: Improve connections between different parts of the city.

4.2-G-8: Use the Bicycle Master Plan to identify, schedule, and implement roadway improvements that enhance bicycle access.

4.2-G-9: Use the Pedestrian Master Plan to identify, schedule, and implement roadway improvements that enhance pedestrian access.

4.2-G-10: Make efficient use of existing transportation facilities and, through the arrangement of land uses, improved alternate modes, and enhanced integration of the various transportation systems serving South San Francisco, strive to reduce the total number of vehicle miles traveled.

4.2-G-13: Integrate Complete Streets infrastructure and design features into street designs and construction to create safe and inviting environments for people who walk, bicycle, and use public transportation.

4.2-I-2: Undertake street improvements identified in Figures 4-1 and 4-2. Improvements identified include South Linden Avenue extension to Sneath Lane. This would dramatically increase access to Lindenville and enable trucks to get to I-380 without going through Downtown. This connection is also extremely critical to ensure connection between Downtown and the (San Bruno) BART Station.

4.2-I-10: In planning, designing, and constructing Complete Streets:

Include infrastructure that promotes a safe means of travel for all users along the right of way, such as sidewalks, shared-use paths, bicycle lanes, and paved shoulders.

Include infrastructure that facilitates a safe crossing of the right of way, such as accessible curb ramps, crosswalks, refuge islands, and pedestrian signals; such infrastructure must meet the needs of people with different types of disabilities and people of different ages.

Ensure that sidewalks, crosswalks, public transportation stops and facilities, and other aspects of the transportation right of way are compliant with the Americans with Disabilities Act and capable of meeting the needs of people with different types of disabilities, including mobility impairments, vision impairments, hearing impairments, and others. Ensure that the South San Francisco Americans with Disabilities Act Transition Plan includes a prioritization method for enhancements and revise if necessary.

Prioritize the incorporation of street design features and techniques that promote safe and comfortable travel by pedestrians, bicyclists, and users of public transportation, such as traffic-

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<sup>9</sup> The City General Plan includes policies related to level of service for certain locations; however, City General Plan Policy 4.2-G-17 exempts development within 0.25 mile of a Caltrain or BART station, as well as a City-designated ferry terminal, from level-of-service standards. This applies to the project because the project site is located within 0.25 mile of the San Bruno BART station. Moreover, under SB 743, levels of service or similar measures of traffic congestion are no longer considered a significant impact under CEQA, as further described in Section 4.15.3.2, above.

calming circles, additional traffic-calming mechanisms, narrow vehicle lanes, raised medians, dedicated transit lanes, transit priority signalization, transit bulb-outs, road diets, a high level of street connectivity, and physical buffers and separations between vehicular traffic and other users.

Ensure use of additional features that improve the comfort and safety of users; provide pedestrian-oriented signs, pedestrian-scale lighting, benches and other street furniture, bicycle parking facilities, and comfortable and attractive public transportation stops and facilities. Encourage street trees, landscaping, and planting strips, including native plants where possible, in order to buffer traffic noise and protect and shade pedestrians and bicyclists. Reduce surface water runoff by reducing the amount of impervious surfaces on the streets.

4.2-I-11: In all street projects, include infrastructure that improves transportation options for pedestrians, bicyclists, and users of public transportation of all ages and abilities.

Ensure that this infrastructure is included in the planning, design, approval, construction, operational, and maintenance phases of street projects.

Incorporate this infrastructure into all construction, reconstruction, retrofit, maintenance, and alteration projects as well as the of repair of streets, bridges, and other portions of the transportation network.

4.3-I-14: Undertake a program to improve pedestrian connections between rail stations (i.e., the South San Francisco and San Bruno BART stations and the Caltrain station) and the surroundings. Components of the program should include:

Installing handicap ramps at all intersections as street improvements are being installed;

Constructing wide sidewalks where feasible to accommodate increased pedestrian use;

Providing intersection “bulbing” to reduce walking distances when crossing streets in downtown, when crossing El Camino Real or Mission Road, and when crossing streets in other high-use areas;

Continuing the City’s current policy of providing pedestrian facilities at all signalized intersections; and

Providing landscaping that encourages pedestrian use.

4.3-I-18: Establish parking standards to support trip reduction goals by (1) allowing parking reductions for projects that have agreed to implement trip reduction methods, such as paid parking, and for mixed-use development, and (2) requiring projects larger than 25 employees to provide preferential parking for carpools and vanpools.

### **Bicycle and Pedestrian Master Plans**

The City’s Bicycle Master Plan (2011) and Pedestrian Master Plan (2012) identify improvements for providing safer walking and biking environments and making active transportation an integral part of the City’s transportation system. The Bicycle Master Plan identifies and prioritizes street improvements to enhance bicycle access. The plan analyzes bicycle demand and gaps in bicycle facilities, and recommends improvements and programs for implementation. Near the project site, the Bicycle Master Plan identifies Class III bicycle routes on South Linden Avenue and Dollar Avenue.

The Pedestrian Master Plan identifies and prioritizes street improvements to enhance pedestrian access. The plan analyzes pedestrian demand and gaps in pedestrian facilities, and recommends improvements and programs for implementation. The Pedestrian Master Plan does not identify any improvements near the project site.

Both plans are currently being updated in the *Active South City: Bicycle and Pedestrian Master Plan* in connection with the City's General Plan (Shape SSF), which has not yet been adopted. The current Bicycle Master Plan and Pedestrian Master Plan remain active until completion and adoption of the new *Active South City: Bicycle and Pedestrian Master Plan*.

### **South San Francisco Transportation Demand Management Ordinance**

The City's Transportation Demand Management (TDM) Ordinance, codified at Title 20 of the City's Municipal Code under Chapter 20.400, *Transportation Demand Management*, seeks to reduce the amount of traffic generated by nonresidential development and minimize drive-alone commuter trips. The ordinance establishes a performance target, which is tied to the minimum alternative mode share for all nonresidential projects resulting in more than 100 average daily trips, and identifies higher thresholds for projects developed at increased intensities. For the project, the minimum alternative mode share is 45 percent, consistent with the TDM Ordinance requirements for projects proposing a floor area ratio (FAR) of up to 2.5. The General Plan establishes an incentives-based land use program with density bonuses for projects meeting identified TDM objectives that do not discriminate between small and large employers.

Per the TDM Ordinance, all projects are required to submit annual mode-share surveys. Projects seeking a FAR bonus are required to submit triennial reports to assess project compliance with the required alternative mode-share target. When targets are not achieved, the report must include program modification recommendations; City officials may impose administrative penalties should subsequent triennial reports indicate that mode-share targets have remained unachieved.

### **City of San Bruno Plans and Policies**

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within the City of San Bruno but would not develop any new structures or new land uses in San Bruno. The improvements would occur on areas that are already developed with existing circulation improvements. The specific off-site improvements located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue East; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. This section identifies and evaluates the proposed project's consistency with relevant City of San Bruno plans and policies related to the portion of the project's proposed infrastructure improvements within City of San Bruno jurisdiction. As discussed in Chapter 1, *Introduction*, of this EIR, this EIR is intended to provide CEQA clearance for subsequent discretionary approvals required by other agencies, including the City of San Bruno, for proposed off-site improvements outside City of South San Francisco jurisdiction. An analysis of City of San Bruno policies is included here for that purpose. The EIR also analyzes the potential transportation-related impacts resulting from implementation of the entire project that would occur within San Bruno as well as South San Francisco.

### City of San Bruno General Plan Policies

The following City of San Bruno General Plan policies are relevant to the project's proposed off-site improvements within San Bruno.<sup>10</sup>

T-A: Provide for efficient, safe, and pleasant movement for all transportation modes—vehicles, bicycles, transit, and pedestrians.

T-E: Focus San Bruno's efforts on improvements to the non-motorized transportation system (i.e., bicycles, pedestrians, strollers, etc.) adjacent to transit corridors and stations and their connections to those systems.

T-F: Provide efficient local transit—such as a shuttle system—to the BART and Caltrain stations to avoid dependence on individual motor vehicles.

T-I: Develop and maintain a comprehensive bicycle network within San Bruno, providing connections to BART and Caltrain, surrounding cities, employment and shopping areas, and natural areas.

T-J: Develop a safe, convenient, and continuous network of sidewalks and pedestrian paths within the city.

T-2: Ensure that all transportation improvements—roadway, transit, bicycle, and pedestrian—are designed and constructed according to Americans with Disabilities Act standards. Improve existing facilities so they are compliant with Americans with Disabilities Act standards.

T-43: Create a “pedestrian-friendly” environment surrounding the BART and Caltrain stations by installing additional street trees, lighting, and signage and widening sidewalks along streets adjacent to these stations.

T-47: Improve multi-modal access—specifically for pedestrians, bicyclists, and transit passengers—to the BART and Caltrain stations through improvements along Huntington Avenue.

T-70: Identify funding for and implement as a priority bicycle/pedestrian paths along the BART and Caltrain track alignments (Huntington Avenue and Herman Street) within the city limits. Coordinate with the linear park planned in South San Francisco and Millbrae.

### Transit Corridors Plan Policies

The City of San Bruno Transit Corridors Plan articulates the community's vision for revitalized commercial corridors in proximity to the San Bruno Avenue Caltrain station. The following policies are relevant to the project's proposed off-site improvements within San Bruno:

TRANS-B: Ensure increased transit connectivity within as well as to/from the Transit Corridors Area and provide transit amenities at stops and stations that increase the visibility of stops and stations and improve 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-C.1: Provide Class II bicycle lanes on Huntington Avenue north of San Bruno Avenue.

<sup>10</sup> The City of San Bruno General Plan includes policies related to level of service, including Policy T-B, stating that acceptable levels of service for vehicular movement along the city's street network should be maintained and that an “[a]cceptable level of service could vary, based on characteristics of the area under consideration.” Under SB 743, levels of service or similar measures of traffic congestion are no longer considered a significant impact under CEQA.

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-D.1: Provide enhanced crosswalks at all crossings in the Transit Corridors Area. As appropriate, enhanced crosswalks should include pedestrian bulb-outs, median refuge islands, or special paving treatments.

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 Transportation Demand Management (TDM) Program that reduces the amount of peak-period motor vehicle traffic and encourages the use of modes other than the single-occupant vehicle.

### **Walk 'n Bike Plan**

The City of San Bruno Walk 'n Bike Plan identifies improvements to support safe, comfortable, and convenient walking and biking within the city. The plan identifies specific improvements, including streetscape enhancements and a Class IV separated bikeway along Huntington Avenue, gap closures for Class II bicycle lanes along Sneath Lane, and a Class III bicycle route along Herman Street.

## **4.15.4 Impacts and Mitigation Measures**

This section describes the impact analysis related to transportation and circulation for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

### **4.15.4.1 Significance Criteria**

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant transportation and circulation impact if it would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b), related to VMT;
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

Neither the City of South San Francisco nor the City of San Bruno has adopted a standard set of thresholds of significance for transportation impact analyses. The thresholds of significance used in this analysis, which are listed below, expand upon Appendix G criteria as well as local considerations from adopted policies of the City of South San Francisco and City of San Bruno.

## Consistency with Local and Regional Policies and Plans

- A significant impact would occur if the project were to conflict with adopted policies, plans, or programs regarding transit, bicycle, or pedestrian facilities.

## Vehicle Miles Traveled

Pursuant to Public Resources Code Section 21099, City of South San Francisco Resolution 77-2020 and CEQA Guidelines Section 15064.3, the project, which is located within 0.5 mile of an existing major transit stop, is presumed to have a less-than-significant impact on VMT unless any of the following criteria applies:

- The project has a FAR of less than 0.75;
- The project includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- The project is inconsistent with the applicable SCS (as determined by the lead agency, with input from the MPO); and/or
- The project replaces affordable residential units with a smaller number of moderate- or high-income residential units.

If, based on the criteria above, the project is not presumed to have a less-than-significant impact, the following criterion applies:

- A significant impact would occur if development of the project were to generate per-employee VMT greater than the City's adopted threshold (i.e., more than 15 percent below the regional average).

For the project's transportation infrastructure improvements, the following criterion applies:

- A significant impact would occur if the project were to result in a net increase in total VMT.

## Design Hazards

### Geometric Design Hazards

- A significant impact would occur if the project were to substantially increase hazards for street users due to a design feature or land uses that would be incompatible with the surrounding street network.

### Vehicle Queuing at Freeway Off-Ramps

- A significant impact would occur if the project were to cause vehicle queues for a given movement downstream of Caltrans freeway facilities to exceed existing storage space capacity for that movement or contribute to existing vehicle queues that would exceed the storage space capacity for a given movement.<sup>11</sup>

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<sup>11</sup> Freeway off-ramps were analyzed based on input from Caltrans' NOP comment letter to assess whether off-ramp queueing may pose a safety hazard.

**Queuing Across an At-Grade Rail Crossing**

- A significant impact would occur if 95<sup>th</sup>-percentile vehicle queues were to extend beyond the available storage space and substantially exacerbate a risk of collision.

**Traffic Signal Warrant**

- A significant impact would occur if project-related vehicle traffic at an unsignalized intersection or driveway were to increase baseline volumes to peak-hour or pedestrian-volume signal warrant criteria levels and project-related traffic volumes substantially increase a risk of collision.

**Emergency Vehicle Access**

- A significant impact would occur if the project were to result in inadequate emergency vehicle access.

**Bicycle, Pedestrian, and Transit**

- A significant impact would occur if the project were to cause a detrimental impact on the performance of transit services.
- A significant impact would occur if the project were to cause a detrimental impact on the performance or safety of bicycle or pedestrian facilities.

**4.15.4.2 Analysis Scenarios**

Five scenarios, listed below, were analyzed for purposes of identifying impacts of the proposed project on the surrounding transportation system:

- Scenario 1: Existing Conditions (No Project)
- Scenario 2: 2024 Baseline Condition (No Project)
- Scenario 3: 2024 Baseline Plus Phase 1 Conditions ("Phase 1 Scenario")
- Scenario 4: 2040 Future Baseline Conditions (No Project)
- Scenario 5: 2040 Future Baseline Plus-Project Conditions ("Buildout Scenario")

**Scenario 1: Existing Conditions**

Existing conditions represent the baseline condition upon which project impacts are measured. The existing condition reflects transportation conditions prior to the COVID-19 pandemic. Because of atypical travel patterns and transit service levels during the COVID-19 pandemic, new data were not collected for this analysis. Instead, to establish a representative existing condition, this analysis relied on local traffic data collected in 2017 and 2018 as well as transit service levels prior to the COVID-19 pandemic, including Caltrain service levels (i.e., five trains per hour in each direction). This approach enabled analysis of a recent observed condition. Furthermore, no major developments have been completed in the immediate project area that would affect traffic patterns substantially; however, there is inherently some uncertainty in the representation of existing conditions because of the age of the data and the atypical circumstances of the COVID-19 pandemic.

## Scenario 2: 2024 Baseline

The 2024 baseline condition represents a near-term condition after the COVID-19 pandemic is presumed to have ended and travel patterns have returned to pre-COVID conditions. The 2024 baseline condition includes pro-rated local and regional growth, consistent with 2040 forecasts, reflecting 2017/2018 conditions plus the addition of roughly one quarter of total forecast growth between 2017/2018 conditions and 2040 forecasts. Although there remains substantial uncertainty around the COVID-19 pandemic's effects on travel behavior and the duration of these effects, this approach assumes that travel behavior will return to pre-COVID conditions and the effects of the pandemic on transportation will be short term in nature. The 2024 baseline also includes completion of the Peninsula Corridor Electrification Project, which is currently under construction and anticipated to be completed in 2022. That project will increase Caltrain service levels to six trains per hour in each direction.

## Scenario 3: Phase 1 Scenario

The Phase 1 Scenario, or 2024 baseline plus Phase 1 conditions, represents the 2024 condition with the addition of Phase 1, which is anticipated to be completed and operational in 2024. As discussed in Section 3.6.2.3 in Chapter 3, *Project Description*, of this draft EIR, all of the proposed off-site improvements in San Bruno's jurisdiction would be constructed as part of Phase 1. These include several major transportation network improvements, including construction of Southline Avenue; a new intersection to connect Sneath Lane, Huntington Avenue, Maple Avenue, and Southline Avenue; a signalized driveway to the SamTrans Transit Center; and the extension of various bicyclist and pedestrian facilities. This includes extending the Centennial Way Trail to the San Bruno BART station and enhancing pedestrian access to the station with the use of new bulb-outs and high-visibility crosswalks. As such, under 2024 baseline plus Phase 1 conditions, traffic volumes reflect 2024 baseline traffic volumes, some redistribution of traffic to the new Southline Avenue, and the traffic associated with land uses in Phase 1.

## Scenario 4: 2040 Future Baseline Conditions

2040 future baseline conditions include transportation demand resulting from reasonably foreseeable land use changes and conditions associated with planned transportation projects, but do not include the proposed project (Phase 1 or Specific Plan buildout). Future baseline conditions are based on forecast land use and transportation conditions included in Plan Bay Area 2040, as represented in the C/CAG of San Mateo County Travel Demand Model (C/CAG Model). Forecasts for future baseline conditions include several adjustments to reflect the reasonably foreseeable projects that could affect the surrounding area, including completion of all approved employment projects in South San Francisco as of May 2020<sup>12</sup> and completion of the Bayhill Specific Plan in San Bruno (a plan that may be considered reasonably foreseeable, even though it has not yet been approved at the time of preparation of this EIR). Along the Caltrain railroad corridor, future baseline conditions include the operation of 12 trains per hour in each direction during peak periods; this service level reflects completion of the California High-Speed Rail Project to operate four high-speed trains per

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<sup>12</sup> The total number of land use approvals for employment projects in South San Francisco exceeds Plan Bay Area forecasts; therefore, the difference in employment growth has been added to Plan Bay Area forecasts. Projects included in this cumulative analysis include major developments such as the Cove, Gateway of the Pacific, Oyster Point Development, and other projects in the "East of 101 Area."

hour in each direction (as described in Plan Bay Area 2040) as well as the Caltrain Business Plan's adopted service vision (i.e., operating eight trains per hour in each direction during peak periods).

Future baseline conditions do not assume completion of the South Linden Avenue and Scott Street grade separations because these projects are not yet fully funded or included in the RTP. As of September 2020, both South San Francisco and San Bruno have provided direction to proceed with studying a hybrid approach for the South Linden Avenue grade crossing. This involves partially raising the railway and lowering the roadway, along with closing Scott Street to vehicles and maintaining a crossing for bicyclists and pedestrians.

### **Scenario 5: 2040 Buildout Scenario Studied (Office Scenario)**

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the proposed project would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the proposed project: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses 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.

Buildout conditions, which represent future baseline conditions with the addition of the complete project (including Phase 1 improvements, described under Scenario 3 above), are studied to determine the extent to which the proposed project would contribute to long-term cumulative transportation impacts. For the transportation analysis, the Office Scenario is expected to generate the highest levels of travel activity given its employee density level (typically, one office employee per 250 square feet), which is nearly twice that of the Life Sciences Scenario (typically, one employee per 450 square feet).<sup>13</sup> Furthermore, the Office Scenario would include more developed square footage (approximately 2,800,000 square feet compared to approximately 2,025,050 square feet, respectively). Therefore, the Office Scenario would have a more substantial effect related to transportation and circulation impacts compared with the Life Sciences Scenario. As such, this section analyzes the Office Scenario when considering project impacts under the buildout scenario.

#### **4.15.4.3 Approach to Analysis**

##### **Travel Demand Methodology**

The C/CAG Model was used as a basis for analyzing travel behavior, including trip distribution and VMT. This trip-based regional travel demand model considers regional land use patterns, approximates highway congestion, and analyzes connecting transit service within the nine-county Bay Area region. As part of the ongoing City General Plan update, the C/CAG Model was reviewed and updated through a series of diagnostic tests to assess its performance and reasonableness. A series of refinements were made to the model inputs for land use, the roadway network, and transit

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<sup>13</sup> City of San José. 2016. *San José Market Overview and Employment Lands Analysis*. Available: <https://www.sanjoseca.gov/home/showpublisheddocument/22529/636688929663530000>. Accessed: 9/21/2021.

service in South San Francisco.<sup>14</sup> These updates improved the model's effectiveness with respect to reasonably estimating current travel patterns and changes in travel patterns in response to project land use and transportation network changes.

To further enhance the reasonableness of trip assignment from the C/CAG Model, the City's sub-area model was applied through the use of project trip generation and trip distribution from the C/CAG Model. The sub-area model, developed for the City General Plan update, reflects origin/destination patterns consistent with the C/CAG Model and incorporates refinements to the level of detail in the local street network. The sub-area model, developed in the Vissim software platform, provides a more detailed representation of the traffic circulation and operational performance of the roadway network in the vicinity of the project site and within South San Francisco and San Bruno. The roadway network in the sub-area model was refined to include most streets and major driveways in South San Francisco. The traffic assignment process in the sub-area model incorporates details such as signal timing, intersection lane geometry, and turning movement delay, allowing for a more realistic representation of existing traffic patterns and those associated with the project land use and proposed street extension.

The amount of traffic added to the roadway system by the proposed project was estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. The first step, trip generation, estimates the amount of traffic that would be generated once the proposed project is built and fully occupied. The second step, trip distribution, estimates the direction of travel to and from the project site. The third step, trip assignment, assigns proposed project trips to specific street segments and intersection turning movements.

## Operations Analysis Methodology

The project's effects on transit operations, bicyclist/pedestrian conflicts, and the South Linden Avenue at-grade railroad crossing were analyzed using the Vissim traffic operations analysis software. Vissim analyzes traffic by simulating and capturing interactions between individual cars, trucks, buses, trains, bicyclists, and pedestrians. Vissim provides detailed information regarding various outcomes, such as vehicle queuing on at-grade rail crossings, delays for transit riders, and potential conflicts between bicyclists and pedestrians along the Centennial Way Trail.

Viswalk was used to analyze potential conflicts between pedestrians and bicyclists along the Centennial Way trail extension during AM and PM peak hours. The analysis simulates pedestrian and bicycle behavior, interactions, and usage of space. Pedestrian and bicycle trips were distributed to reflect the proposed project's travel demand, particularly the trips between the project and BART and SamTrans.

## Trip Generation

Project person-trip and vehicle-trip forecasts were developed to capture the multimodal nature of project travel as a transit-oriented development. Person-trip generation represents trips by one person using any mode of transportation, whereas vehicle trip generation represents trips by one vehicle. Vehicle-trip estimates include trips associated with single-occupancy vehicles, taxis, ride-

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<sup>14</sup> Updates to the model were based on relevant national guidance, including the *2017 Regional Transportation Plan Guidelines for Metropolitan Transportation Planning Organizations* (California Transportation Commission 2017) and *Travel Model Validation and Reasonability Checking Manual, Second Edition, Travel Model Improvement Program* (Federal Highway Administration 2010).

hailing companies (e.g., Uber and Lyft), carpools, and shuttles. Trip generation analysis was prepared for Office Scenario buildout conditions, as well as for the Phase 1 project, inclusive of the amenities building (Building 2).

### Office-Trip Generation

Office-trip generation was calculated using local data from comparable sites. The Institute of Transportation Engineers (ITE) *Trip Generation Manual*, tenth edition, recommends using local data for atypical developments like the proposed project, which is very large in scale, adjacent to high-frequency transit service, and subject to stringent TDM requirements. Based on that recommendation, estimates of person-trip and vehicle-trip rates were based on observed counts and mode-share surveys for comparable high-intensity technology office uses in downtown Redwood City near the Redwood City Caltrain station, as analyzed in the Redwood City Moves Transportation Plan. Based on a review of comparable trip generation and mode-share data for transit-oriented office sites in San Francisco, Oakland, and San Mateo, the Redwood City location possessed land use, transit, and TDM characteristics that most closely resembled those of the project. The person-trip and vehicle-trip rates were adjusted to reflect the project's mode-share requirements, consistent with the City's TDM Ordinance, which calls for a maximum peak-period drive-alone rate of 55 percent (i.e., a minimum alternative mode share of 45 percent), including single-occupancy vehicles and single-passenger trips from ride-hailing companies or taxis, compared to an observed peak-period drive-alone rate of 50 percent in the downtown Redwood City surveys.<sup>15</sup>

Person-trip generation for non-auto modes was based on transit, carpool, and active transportation data from South San Francisco TDM surveys and the proximity of the project site to transit services and active transportation facilities. An estimated 23 percent of peak-hour trips would use BART, 10 percent would use Caltrain, 8 percent would be carpool trips, 2 percent would use SamTrans buses, and 2 percent would use bicycles. BART and SamTrans trips would require walking from the project site to the San Bruno BART station or SamTrans Transit Center, while Caltrain trips would require first-/last-mile shuttles or biking.

### Amenity Uses

Trip generation for the project's publicly accessible restaurant/retail uses, as well as private amenity uses, were estimated using the "high-turnover" restaurant classification from the *Trip Generation Manual*. Public amenities are generally expected to draw pedestrian trips from elsewhere within the Specific Plan area or adjacent uses, along with vehicle trips from locations primarily in South San Francisco and San Bruno. Amenity uses that would be accessible only to tenants of the project (e.g., an employee cafeteria, fitness center, basketball court, auditorium) would not generate external vehicle trips but would generate employee-related person trips for individuals employed at these services. Trip generation for these internal amenities was estimated at about one-quarter of the office rates, based on anticipated employee densities and the mix of

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<sup>15</sup> City of South San Francisco's TDM Ordinance establishes a required alternative mode share of 45 percent, based on the project's FAR.

staffed and unstaffed uses.<sup>16</sup> Trip generation for public and private amenity uses was included in the analysis for both the project buildout and Phase 1 project.

### Trip Internalization

Mixed-use developments result in some trips between different land uses being “internalized” onsite – occurring generally by walking or biking within the development rather than driving or traveling elsewhere. These trips would typically originate from a project site to some location elsewhere by car or transit, but would now occur wholly on-site by walking or biking due to the types of uses proposed. The project proposes to include a mix of office/R&D uses along with retail and amenity uses including tenant-serving amenities such as a fitness facility, which would facilitate some trip internalization within the project site. For example, an office employee would avoid a new vehicle trip by walking to a fitness center, cafeteria, and café or retail space within the project site. For purposes of this analysis, trip internalization rates of 3 percent (AM peak hour) and 2 percent (PM peak hour) were applied to all vehicle trips during the respective peak hours. These rates were based on the Mixed-Use Trip Generation Model (MXD) + Model, a weighted average of the U.S. Environmental Protection Agency’s MXD and the National Cooperative Highway Research Program’s 684 methodology.

### Credit for Existing Trip Generation

The project’s net change in the number of vehicle trips was calculated to reflect the estimated number of vehicle trips occurring at the Specific Plan area under existing conditions. Because of the atypical travel patterns associated with the COVID-19 shelter-in-place order, driveway counts at existing uses were not conducted. Instead, trip generation for existing uses within the Specific Plan area was estimated based on land use characteristics and *Trip Generation Manual* recommendations. Existing land uses include approximately 344,000 square feet of light industrial and office uses, about 85 percent of which is occupied. All of the existing land uses would be demolished as part of Phase 1; therefore, both Phase 1 and project buildout trip generation include the full trip credit associated with existing land uses. In total, existing uses generate an estimated 1,504 daily vehicle trips, including 171 AM peak-hour vehicle trips and 150 PM peak-hour vehicle trips.

### Trip Generation Results

Phase 1 would generate approximately 7,930 daily person trips and 3,954 daily vehicle trips. These totals include 1,043 AM peak-hour person trips, 485 net new AM peak-hour vehicle trips, 950 PM peak-hour person trips, and 455 net new PM peak-hour vehicle trips. **Table 4.15-2 and Table 4.15-3, pp. 4.15-30 and 4.15-31**, show person-trip and vehicle-trip generation estimates for Phase 1, respectively.

The project at buildout would generate approximately 28,461 daily person trips and 16,876 vehicle trips. These totals include 3,918 AM peak-hour person trips, 2,150 net new AM peak-hour vehicle trips, 3,528 PM peak-hour person trips, and 1,952 PM peak-hour vehicle trips. **Table 4.15-4** and

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<sup>16</sup> Based on the San Mateo County Linkage Fee Nexus Study, restaurant and service uses typically have half the employee density of office uses. About half of the project amenity spaces were identified as actively staffed restaurant and service uses; therefore, employee density and trip generation were assumed to be one-quarter of office uses. Office trip generation typically reflects trips by mostly employees; therefore, the ratio of amenity density to office density was applied to trip generation to determine amenity trip generation rates.

**Table 4.15-5, pp. 4.15-32 and 4.15-33**, show person-trip and vehicle-trip generation estimates for the project, respectively.

**Table 4.15-2. Person-Trip Generation, Phase 1**

<b>Mode</b>	<b>Mode Share</b>	<b>AM Peak Hour</b>	<b>PM Peak Hour</b>	<b>Daily</b>
Drive alone	55%	499	447	3,837
Carpool	8%	73	65	550
BART	23%	209	187	1,281
Caltrain <sup>a</sup>	10%	91	81	557
SamTrans	2%	18	16	111
Walking/bicycling <sup>b</sup>	2%	18	16	111
<b>Total Person Trips Monitored by TDM Ordinance</b>	<b>100%</b>	<b>908</b>	<b>812</b>	<b>6,448</b>
Other public amenity visitors	—	135	138	1,482
<b>Total Person Trips</b>	<b>—</b>	<b>1,043</b>	<b>950</b>	<b>7,930</b>

Notes:

- <sup>a</sup> Based on travel demand data from high-intensity “tech” office mode-share and person-trip generation surveys from downtown Redwood City near the Redwood City Caltrain station as well as requirements from the City TDM Ordinance.
- <sup>b</sup> Mode-share estimates based on City TDM surveys and analysis, based on local context.

Source: Fehr & Peers, 2021.

**Table 4.15-3. Vehicle-Trip Generation, Phase 1**

Land Use	Size (KSF)	AM Peak Hour				PM Peak Hour				Daily	
		Rate (per KSF)	In	Out	Total	Rate (per KSF)	In	Out	Total	Rate (per KSF)	Total
Office <sup>a</sup>	613	0.81	464	35	499	0.73	58	387	445	6.16	3,774
Private amenities <sup>b</sup>	72	0.23	15	1	16	0.20	2	13	15	1.72	124
Public amenities <sup>c</sup>	16	9.94	87	72	159	9.77	97	59	156	115	1,840
<i>Internalization adjustment (3% AM peak hour /2% PM peak hour)</i>			-15	-3	-18		-3	-8	-11		-280
<b>Phase 1 Trips</b>			<b>551</b>	<b>105</b>	<b>656</b>		<b>154</b>	<b>451</b>	<b>605</b>		<b>5,458</b>
Existing office <sup>d,f</sup>	11	<i>ITE equation</i>	-10	-2	-12	<i>ITE equation</i>	-2	-12	-14	9.74	-125
Existing light industrial <sup>e,f</sup>	278	<i>ITE equation</i>	-140	-19	-159	<i>ITE equation</i>	-18	-118	-136	4.96	-1,379
<b>Net New Phase 1 Trips</b>			<b>401</b>	<b>84</b>	<b>485</b>		<b>134</b>	<b>321</b>	<b>455</b>		<b>3,954</b>

**Notes:**

- a. Based on travel demand data from high-intensity “tech” office mode-share and vehicle-trip generation surveys from downtown Redwood City near the Redwood City Caltrain station as well as requirements from City TDM Ordinance. Values rounded in table.
- b. Includes only external trips associated with employee commuting and deliveries, which are assumed to be 72 percent less than the office trip-generation rate, based upon expected uses and employee densities.
- c. Source: Institute of Transportation Engineers. *Trip Generation Manual*. Tenth edition. ITE 932, High-Turnover Restaurant. Values rounded in table.
- d. Source: Institute of Transportation Engineers. *Trip Generation Manual*. Tenth edition. ITE 710, General Office Building. Fitted curve equation used for individual land uses. Includes occupied spaces as of March 2020. Values rounded in table. All existing uses are assumed to be removed with Phase 1.
- e. Source: Institute of Transportation Engineers. *Trip Generation Manual*. Tenth edition. ITE 110, General Light Industrial. Fitted curve equation used for individual land uses. Includes occupied spaces as of March 2020. Values rounded in table. All existing uses are assumed to be removed with Phase 1.
- f. The inventory of existing land uses within the Specific Plan area was adjusted after completion of the trip generation estimate. The trip generation analysis utilizes a trip credit for approximately 289,000 square feet of existing uses. However, actual existing uses include 339,349 square feet of industrial/warehouse uses and 4,451 square feet of office uses (refer to Table 3-3 and Table 3-4 in Chapter 3, *Project Description*, of this EIR). Because the trip generation estimate takes a smaller credit for existing uses (i.e., approximately 289,000 square feet versus 343,800 square feet), it represents a conservative analysis.

KSF = thousand square feet

Source: Fehr &amp; Peers, 2021.

**Table 4.15-4. Person-Trip Generation, Project Buildout**

<b>Mode</b>	<b>Mode Share</b>	<b>AM Peak Hour</b>	<b>PM Peak Hour</b>	<b>Daily</b>
Drive alone	55%	2,105	1,879	15,984
Carpool	8%	306	273	2,317
BART	23%	880	786	5,394
Caltrain <sup>a</sup>	10%	383	342	2,345
SamTrans	2%	77	68	469
Walking/bicycling <sup>b</sup>	2%	77	68	469
<b>Total Person Trips Monitored by TDM Ordinance</b>	<b>100%</b>	<b>3,828</b>	<b>3,416</b>	<b>26,978</b>
Person trips, public amenity visitors	—	90	112	1,483
<b>Total Person Trips</b>	<b>—</b>	<b>3,918</b>	<b>3,528</b>	<b>28,461</b>

Notes:

- <sup>a</sup>. Based on travel demand data from high-intensity “tech” office mode-share and person-trip generation surveys from downtown Redwood City near the Redwood City Caltrain station as well as requirements from the City TDM Ordinance.
- <sup>b</sup>. Mode-share estimates based on City TDM surveys and assignment to transit providers, based on local context and expected travel patterns.

Source: Fehr &amp; Peers, 2021.

**Table 4.15-5. Vehicle Trip Generation, Project Buildout**

Land Use	Size (KSF)	AM Peak Hour				PM Peak Hour				Daily	
		Rate (per KSF)	In	Out	Total	Rate (per KSF)	In	Out	Total	Rate (per KSF)	Total
Office <sup>a</sup>	2,712	0.81	2,053	155	2,208	0.73	256	1,713	1,969	6.16	16,696
Private amenities <sup>b</sup>	72	0.23	15	1	16	0.20	2	13	15	1.72	124
Public amenities <sup>c</sup>	16	9.94	87	72	159	9.77	97	59	156	115	1,840
<i>Internalization adjustment (3% AM peak hour/2% PM peak hour)</i>			-56	-6	-62		-6	-32	-38		-280
Project Trips			<b>2,099</b>	<b>222</b>	<b>2,321</b>		<b>349</b>	<b>1,753</b>	<b>2,102</b>		<b>18,380</b>
Existing office <sup>d,f</sup>	11	<i>ITE equation</i>	-10	-2	-12	<i>ITE equation</i>	-2	-12	-14	9.74	-125
Existing light industrial <sup>e,f</sup>	278	<i>ITE equation</i>	-140	-19	-159	<i>ITE equation</i>	-18	-118	-136	4.96	-1,379
<b>Net New Project Trips</b>			<b>1,949</b>	<b>201</b>	<b>2,150</b>		<b>329</b>	<b>1,623</b>	<b>1,952</b>		<b>16,876</b>

## Notes:

- a. Based on travel demand data from high-intensity “tech” office mode-share and vehicle-trip generation surveys from downtown Redwood City near the Redwood City Caltrain station as well as requirements from City TDM Ordinance. Values rounded in table.
- b. Includes only external trips associated with employee commuting and deliveries, which are assumed to be 72 percent less than the office trip-generation rate, based upon expected uses and employee densities.
- c. Source: Institute of Transportation Engineers. Trip Generation Manual. Tenth edition. ITE 932, High-Turnover Restaurant. Values rounded in table.
- d. Source: Institute of Transportation Engineers. Trip Generation Manual. Tenth edition. ITE 710, General Office Building. Fitted curve equation used for individual land uses. Includes occupied spaces as of March 2020. Values rounded in table.
- e. Source: Institute of Transportation Engineers. Trip Generation Manual. Tenth edition. ITE 110, General Light Industrial. Fitted curve equation used for individual land uses. Includes occupied spaces as of March 2020. Values rounded in table.
- f. The inventory of existing land uses within the Specific Plan area was adjusted after completion of the trip generation estimate. Actual existing uses include 339,349 sf of industrial/warehouse uses and 4,451 sf of office uses (refer to Table 3-3 and Table 3-4 in Chapter 3, *Project Description*, of this draft EIR). Because the trip generation estimate takes a smaller credit for existing uses (approximately 289,000 square feet versus 343,800 sf), it represents a conservative analysis.

KSF = thousand square feet

Source: Fehr &amp; Peers, 2021.

### Trip Distribution and Assignment

A majority of project-related auto travel would occur within San Mateo County. Approximately 65 percent of vehicle trips would travel between the project site and other locations in San Mateo County. About 21 percent of trips would travel between the project site and San Francisco County. The remainder of trips would be split between Alameda County, Santa Clara County, and elsewhere in the East Bay and North Bay.

The project's location and access to multiple freeway ramps would result in drivers using several different routes to access US-101, I-380, and I-280. Approximately 56 percent of project-generated trips would access the site via San Bruno, and 44 percent via South San Francisco based on the location of existing freeway ramps.

By adding the Southline Avenue connection between Sneath Lane/Huntington Avenue and South Linden Avenue, the project would shift vehicle trips from other parallel routes that would have been otherwise relied upon for project site access, resulting in a net decrease in traffic volumes on parallel routes like Spruce Avenue and Scott Street. Generally, 2024 trip distribution mirrors 2040 trip distribution with lower traffic volumes associated with Phase 1.

#### 4.15.4.4 Impact Evaluation

**Impact TR-1: The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicyclist, and pedestrian facilities. (Project: Less than Significant; Phase 1: Less than Significant)**

##### Project

As discussed in the Transportation Impact Analysis in **Appendix 4.15-1** of this EIR, the project, including the proposed off-site improvements, is consistent with applicable adopted transit, bicycling, and walking plans and policies within the Cities of South San Francisco and San Bruno, including the South San Francisco General Plan, South San Francisco's Bicycle and Pedestrian Master Plans, South San Francisco's Transportation Demand Management Ordinance, the San Bruno General Plan, San Bruno's Transit Corridors Plan, and San Bruno's Walk 'n Bike Plan. The project, including off-site improvements, would improve connectivity between the San Bruno BART Station and the Lindenville neighborhood; provide more direct pedestrian routes; add Class II bicycle lanes on Southline Avenue, in addition to Class I and Class III bicycle facilities within the project area; extend the Centennial Way Trail; and provide a range of amenities and features within the project site, including bicycle parking, showers, and changing facilities, among other features. The new Southline Avenue/Sneath Lane/Huntington Avenue/Maple Avenue intersection would include a signalized trail and pedestrian crossings with high-visibility crosswalks. Near the San Bruno BART Station, the project includes circulation enhancements to Huntington Avenue, including widening sidewalks, upgrading curb ramps, providing high-visibility crosswalks, adding bulbouts, and extending the Centennial Way Trail. The project supports public transit ridership by providing enhanced connectivity to BART and SamTrans, a dedicated signalized bus entrance to the SamTrans transit center, and offering a shuttle service to Caltrain. The project would include a TDM Plan to meet the 45 percent mode-share target required by the City.

The project also exhibits consistency with regional plans, including Plan Bay Area, C/CAG's Congestion Management Program, and BART's Transit-Oriented Development Policy. Although the

project site was not specifically identified as a Priority Development Area in Plan Bay Area (adjacent sites in San Bruno were identified), its transit-oriented location near the San Bruno BART station is consistent with the plan's goal to integrate land use and transportation planning as well as BART's goal to encourage reverse-commute trips to employment centers near stations. The project TDM Plan, as well as off-site station access and active transportation improvements, fulfills requirements by C/CAG and is consistent with the goals of BART to encourage transit ridership and reduce the number of vehicle trips.

Section 4.10, *Land Use and Planning*, of this EIR also further addresses the proposed project's consistency with relevant transportation plans and policies and Impact LU-2 concludes a less-than-significant impact.

Therefore, the project at buildout would have a **less-than-significant** impact related to inconsistency with plans and policies. No mitigation is required.

## Phase 1

The impacts of Phase 1 would be the same as those of project buildout since Phase 1 is a component of the overall project. Phase 1 would include most onsite and offsite infrastructure including the extension of Southline Avenue, the extension of the Centennial Way Trail, and pedestrian connectivity upgrades around the San Bruno BART Station. Phase 1 would also include a TDM Plan that is compliant with City of South San Francisco and C/CAG requirements. Therefore, for the reasons stated above in the project analysis, Phase 1 would have a **less-than-significant** impact related to inconsistency with plans and policies. No mitigation is required.

**Impact TR-2: The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), or include transportation changes that would result in a net increase in total VMT. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

As discussed in Section 4.15.3, *Regulatory Framework*, and Section 4.15.4.1, *Significance Criteria*, CEQA Guidelines Section 15064.3, which implements SB 743, establishes a presumption of less than significant for VMT impacts related to qualifying land use projects. As further described below, the proposed project meets the criteria set by CEQA to qualify for the presumption of a less-than-significant impact on VMT.

As shown in **Figure 3-6** in Chapter 3, *Project Description*, the Specific Plan area is within a transit priority area (TPA), defined as an area within 0.5 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 (Public Resources Code Section 21099(a)(7)). The Specific Plan area is within 0.5 mile of a major transit stop, including the San Bruno BART station and a frequent bus route (i.e., the SamTrans ECR route, which operates every 15 minutes). Both the San Bruno BART station and ECR route stops are considered major transit stops.

Project-specific and location-specific information support a presumption of a less than significant VMT impacts:

- The project's proximity to BART provides a high-frequency regional transit connection to San Francisco, the East Bay, and northern San Mateo County, and its proximity to the SamTrans ECR route provides a frequent local transit connection within San Mateo County. Employee access to

Caltrain through a shuttle service may further enable a regional transit connection to San Francisco, the Peninsula, and the South Bay.

- The project includes infrastructure improvements to support direct connections to transit and active transportation, including widening sidewalks, extending the Centennial Way Trail to the San Bruno BART station, adding pedestrian bulb-outs and high-visibility crosswalks, and providing a shuttle service that connects to Caltrain. These improvements would be constructed as part of Phase 1.
- The project would allow up to 2,800,000 square feet of development (a maximum FAR of approximately 2.4), which is substantially denser than surrounding land uses as well as the existing land uses within the proposed Specific Plan area. Phase 1 proposes 700,915 square feet of development at an FAR of approximately 1.35 as calculated across the entire project site. The project and Phase 1 densities are consistent with transit-supportive development for station areas, as defined in BART transit-oriented development guidelines, which call for medium- to high-density development that is greater than the community average within a 5- to 10-minute walk of stations.
- The project's parking supply is below the City requirements applicable to the existing zoning district and comparable office/R&D uses. The project, inclusive of Phase 1, would include vehicle parking ranging up to approximately 2.2 parking spaces per 1,000 square feet of office space, which is less than the City's standard requirement of 2.9 spaces per 1,000 square feet for similar business/professional office and R&D developments. Parking reductions would be permitted under separate review and approval by the City. The project parking rate is consistent with the parking supply guidelines for development around station areas identified in the BART transit-oriented development guidelines, which call for maximum office parking rates of 1.6 to 2.5 spaces per 1,000 square feet of office space, depending on the land use context.
- As described in Section 3.6.2.9 in Chapter 3, *Project Description*, of this draft EIR, the project includes a TDM Plan that requires at least 45 percent of trips to occur through transit, active transportation, and carpooling. All development under the Specific Plan, including Phase 1, would be subject to the 45 percent TDM mode shift requirements.
- As discussed in Section 4.12, *Population and Housing*, of this EIR, operation of the project would not generate substantial unplanned population growth in the city or region according to the Association of Bay Area Governments' (ABAG) population, employment, and housing forecasts in *Projections 2040*. The project, including Phase 1, is also consistent with the goal of *Plan Bay Area 2040* to provide transit-oriented employment growth within TPAs.

As described in Chapter 3, *Project Description*, Section 3.6.2.7, the project would construct a new street (Southline Avenue) of approximately 0.25 mile in length, to connect Sneath Lane/Huntington Avenue and South Linden Avenue in order to provide additional capacity for east-west travel in the project site vicinity. Under existing conditions, there is no direct access route between South Linden Avenue and Sneath Lane; current conditions require detouring about 1.3 miles either to the south on Huntington Avenue to Herman Street/Dollar Avenue or north on Huntington Avenue to South Spruce Avenue and Victory Avenue. The new street connection would affect local traffic patterns by shifting east-west trips from South Spruce Avenue, San Bruno Avenue, and Scott Street toward the new shorter and more direct route. This modified circulation would result in a slight reduction in roadway network VMT, as shown in **Table 4.15-6, p. 4.15-37**.

**Table 4.15-6. VMT Effects of Southline Avenue Extension**

Area	Existing Daily Roadway Network VMT	Daily Roadway Network VMT with Southline Avenue Extension	Difference, Daily Roadway Network VMT
VMT in South San Francisco and San Bruno	5,077,500	5,072,600	-4,900

Source: Fehr & Peers, 2021.

Given the project's features, in combination with its transit-oriented location, the project's land use would meet OPR's criteria for presumption of a less-than-significant VMT impact, and its transportation changes would not increase total VMT. Therefore, the project at buildout would have a ***less-than-significant*** impact on VMT. No mitigation is required.

## Phase 1

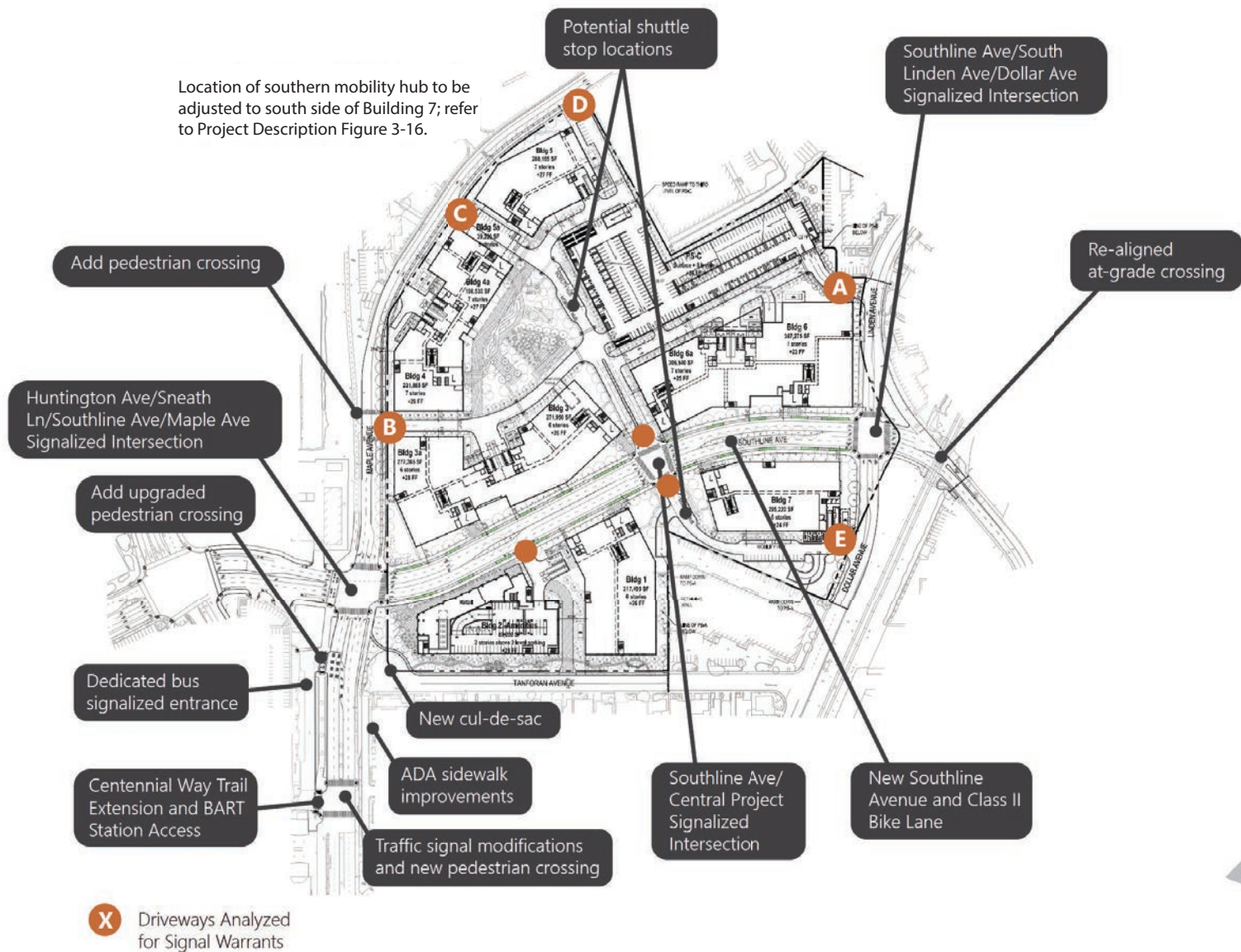
The impacts of Phase 1 would be the same as those of the project since Phase 1 is a component of the overall project. Phase 1 would include most onsite and offsite infrastructure including the extension of Southline Avenue, the extension of the Centennial Way Trail, and pedestrian connectivity upgrades around the San Bruno BART Station. Phase 1 would also include a TDM Plan that is compliant with City of South San Francisco and C/CAG requirements. Therefore, for the reasons stated above in the project analysis, Phase 1 would have a ***less-than-significant*** impact on VMT. No mitigation is required.

**Impact TR-3a: The project would not substantially increase hazards due to a geometric design feature or incompatible uses. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

As shown in **Figure 4.15-6, p. 4.15-38**, the proposed project would include pedestrian circulation and safety improvements both on-site for campus users and off-site in the adjacent community, particularly through enhanced access to the San Bruno BART station and the Centennial Way Trail. The proposed 15- to 17-foot-wide trail extension would be sized to accommodate forecast bicyclist and pedestrian volumes. The path is intended to serve both bicyclists and pedestrians in a shared-use condition, similar to the Centennial Way Trail to the north, while retaining the bioswale area adjacent to the SamTrans Transit Center. The high volume of pedestrians after a train arrival would control the speed of travel on the trail adjacent to the station; spacing between pedestrians would increase as people move farther from the station, allowing bicyclists to pass comfortably.

The project would add a new crosswalk and pedestrian bulb-out on the south side of the SamTrans Transit Center driveway to provide a more direct connection between the BART station and the east sidewalk along Huntington Avenue. The east sidewalk would be rebuilt to achieve Americans with Disabilities Act compliance. Walking trips to and from the Specific Plan area are likely to use both the east sidewalk and west trail along Huntington Avenue.



Source: Fehr & Peers, 2021.

The project would create a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue (i.e., at the western main entrance to the project site). Huntington Avenue would be aligned with Maple Avenue, while Sneath Lane would be aligned with Southline Avenue. The western leg of the intersection would include a crossing for the Centennial Way Trail. High-visibility crosswalks would be provided on the remaining northern, southern, and eastern legs of the intersection. This trail crossing was analyzed as a protected phase, without conflicting right-turn-on-red movements by southbound and eastbound vehicles.

The new intersection would change access to several adjacent driveways. Access to the BART maintenance facility driveway on the north side of Huntington Avenue would remain in the westbound direction but would be restricted in the eastbound direction. Northbound bus access from Huntington Avenue to the SamTrans Transit Center would be relocated to a signalized bus-only left turn (serving about five buses per hour throughout the day). Eastbound access to the SamTrans Transit Center would remain. Adding this intersection would also affect Tanforan Avenue, which would be separated from Maple Avenue via a cul-de-sac to maintain access for residential traffic; a connection to Huntington Avenue East would be maintained. No vehicular project access would occur on Tanforan Avenue. Consequently, traffic volumes would decline on Tanforan Avenue, particularly vehicle and truck traffic associated with industrial sites in Lindenville.

The Southline Avenue/central project driveway intersection (at Buildings 1, 3, 6, and 7), shown in **Figure 3-16** in Chapter 3, Project Description, would experience very high pedestrian volumes during peak hours as a result of its location between project buildings, parking facilities, shuttle stops, and amenities. At project buildout, crosswalk volumes are expected to exceed 500 pedestrians at each crosswalk leg. Consequently, a pedestrian scramble phase in which pedestrians cross all legs of the intersection at the same time was analyzed as the optimal condition to separate pedestrian and vehicle movements. With a pedestrian scramble phase, conflicts between modes are expected to be minimal.

Southline Avenue would connect to the realigned South Linden Avenue/Dollar Avenue intersection on the east side of the proposed Specific Plan area. The northern leg of South Linden Avenue would align with Dollar Avenue, while Southline Avenue would cross a realigned Caltrain at-grade rail crossing and connect to San Mateo Avenue. Eventually, it is anticipated that this crossing would be grade separated through a multi-agency planning and implementation process; both the Cities of South San Francisco and San Bruno have recommended that planning efforts proceed under the "Alternative 1" design, which would partially lower South Linden Avenue and partially raise the railway. The project's design is compatible with the preferred Alternative 1 design. The proposed grade separation project would be subject to a separate CEQA review and approval process unrelated to the project; the grade separation project would require public financing for implementation, which has not yet been obtained. Impacts relating to increased use of rail crossings are addressed in Impact TR-3C.

The proposed circulation and transportation improvements associated with the project would accommodate the change in land use associated with an office/R&D campus in a manner consistent with applicable Caltrans and *Highway Design Manual* design standards and would not introduce design hazards. Therefore, the project at buildout would have a **less-than-significant** impact related to design hazards. No mitigation is required.

## Phase 1

The impacts of Phase 1 would be the same as those of the project since Phase 1 is a component of the overall project. Phase 1 would include most onsite and offsite infrastructure including the extension of Southline Avenue, the extension of the Centennial Way Trail, and pedestrian connectivity upgrades around the San Bruno BART Station. Therefore, for the reasons stated above in the project analysis, Phase 1 would have a ***less-than-significant*** impact related to design hazards. No mitigation is required.

**Impact TR-3b: The project would not substantially increase hazards due to freeway ramp queuing. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

## Project

Ten freeway off-ramps were analyzed, based on project trip assignment patterns, to assess conditions where the addition of project trips may result in hazards for road users. The study locations are listed below.

1. I-280 southbound off-ramp at Rollingwood Drive and Sneath Lane
2. I-280 southbound off-ramp at San Bruno Avenue
3. I-280 northbound off-ramp at San Bruno Avenue
4. U.S. 101 southbound off-Ramp at San Bruno Avenue
5. U.S. 101 northbound off-ramp at San Bruno Avenue
6. I-380 westbound off-ramp at El Camino Real
7. I-380 eastbound off-ramp at El Camino Real
8. U.S. 101 southbound off-ramp at Airport Boulevard
9. U.S. 101 southbound off-ramp at Produce Avenue
10. U.S. 101 northbound off-ramp at South Airport Boulevard

Traffic counts were collected at the 10 freeway on-ramps during morning (7:00 a.m. to 9:00 a.m.) and evening (4:00 p.m. to 6:00 p.m.) peak periods in 2017 and 2019, prior to the onset of the COVID-19 pandemic. Demand volumes were forecast at the ramps for both 2040 future baseline and with-project buildout conditions. **Table 4.15-7, p. 4.15-41**, presents weekday AM and PM peak-hour vehicle queues at seven U.S. 101 off-ramp study locations under 2040 future baseline and with-project buildout conditions.

**Table 4.15-7. Weekday AM and PM Peak-Hour 95th-Percentile Queues – Project**

Approach Lanes	Storage Distance (feet)	2040 Future Baseline		2040 Project Buildout	
		Queue Length		Queue Length	
		AM	PM	AM	PM
I-280 Southbound Off-Ramp at Rollingwood Drive and Sneath Lane					
Left/through	1,200	105	215	118	230
Right	150	74	91	104	103
I-280 Southbound Off-Ramp at San Bruno Avenue*					
Left	120	232	179	243	195
Left/through	840	221	102	227	120
Through/right	3,615				
Right	80	68	68	74	79
I-280 Northbound Off-Ramp at San Bruno Avenue*					
Left	230	93	225	419	240
Through/left/right	1,335	394	818	1,171	778
U.S. 101 Southbound Off-Ramp at San Bruno Avenue*					
Left	280	115	87	65	88
Left/through	960	116	87	65	89
Right	280	26	138	26	138
U.S. 101 Northbound Off-Ramp at San Bruno Avenue*					
Left/through	2,600	277	603	2,299	1,040
Right	560	324	335	961	498
I-380 Westbound Off-Ramp at El Camino Real*					
Left	980	253	212	250	217
Right	980	331	668	359	637
I-380 Eastbound Off-Ramp at El Camino Real*					
Left	520	157	294	234	378
Through/left/right	1,760	170	271	271	312
Right	330	160	252	242	273
U.S. 101 Southbound Off-Ramp at Airport Boulevard					
Left	430	278	253	360	270
Through	720	282	307	368	318
U.S. 101 Southbound Off-Ramp at Produce Avenue					
Left	620	208	182	272	226
Right	100	63	43	63	45
U.S. 101 Northbound Off-Ramp at South Airport Boulevard					
Left/Through	740	526	283	514	274
Right	740	46	39	47	39

Notes: Ramps analyzed using Synchro software.

“\*” indicates additional analysis with Simtraffic software.

Storage distance and queues in feet per lane. While some queues exceed available storage, project-related traffic does not contribute to the queues for these lanes.

Source: Fehr &amp; Peers, 2021.

Given the Specific Plan area's proximity to 10 freeway ramps for U.S. 101, I-280, and I-380 from several roadways and driveways, project-related traffic would be distributed across a number of potential routes, including arterials and other roadways. Consequently, project-related volumes would not result in queues that would exceed the total ramp storage distance to the freeway mainline at any of the study locations under any scenario. As such, the project is not expected to create or contribute to hazards resulting from speed differentials at off-ramp diverge points on Caltrans facilities. Therefore, the project at buildout would have a **less-than-significant** impact on freeway off-ramp queuing, and no mitigation is required.

## Phase 1

**Table 4.15-8, p. 4.15-42**, presents weekday AM and PM peak-hour vehicle queues at seven U.S. 101 off-ramp study locations under 2040 no-project and with-project conditions. As shown, Phase 1 would not result in queues that would exceed the total ramp storage distance to the freeway mainline at any of the study locations under any scenario. As such, Phase 1 is not expected to create or contribute to hazards resulting from speed differentials at off-ramp diverge points on Caltrans facilities. Therefore, Phase 1 would have a **less-than-significant** impact on freeway off-ramp queuing, and no mitigation is required.

**Table 4.15-8. Weekday AM and PM Peak-Hour 95<sup>th</sup> Percentile Queues – Phase 1**

Approach Lanes	Storage Distance (feet)	Existing		2024 Baseline		2024 Plus Phase 1	
		Queue Length		Queue Length		Queue Length	
		AM	PM	AM	PM	AM	PM
I-280 Southbound Off-Ramp at Rollingwood Drive and Sneath Lane							
Left/through	1,200	65	190	68	197	77	203
Right	150	65	72	67	62	68	66
I-280 Southbound Off-Ramp at San Bruno Avenue*							
Left	120	197	153	205	158	209	161
Left/through	840	183	90	190	92	197	96
Through/right	3,615						
Right	80	54	51	58	51	62	57
I-280 Northbound Off-Ramp at San Bruno Avenue*							
Left	230	85	202	89	211	91	207
Through/left/right	1,280	334	660	365	701	325	701
U.S. 101 Southbound Off-Ramp at San Bruno Avenue*							
Left	280	112	81	112	84	56	86
Left/through	960	112	82	112	84	56	86
Right	280	24	130	24	136	24	140
U.S. 101 Northbound Off-Ramp at San Bruno Avenue*							
Left	560	256	345	260	391	295	419
Right (through)	2,400	69	68	93	86	102	103
I-380 Westbound Off-Ramp at El Camino Real*							
Left	980	246	303	248	303	248	303
Right	980	252	834	280	838	296	799

Approach Lanes	Storage Distance (feet)	Existing		2024 Baseline		2024 Plus Phase 1	
		Queue Length		Queue Length		Queue Length	
		AM	PM	AM	PM	AM	PM
I-380 Eastbound Off-Ramp at El Camino Real*							
Left	520	131	340	135	352	157	355
Through/left/right	1,760	96	263	105	287	151	306
Right	330	88	245	96	267	118	277
U.S. 101 Southbound Off-Ramp at Airport Boulevard							
Left	430	208	143	213	166	230	174
Through	720	209	224	220	240	230	254
U.S. 101 Southbound Off-Ramp at Produce Avenue							
Left	620	220	162	182	168	221	202
Right	100	69	40	58	40	59	42
U.S. 101 Northbound Off-Ramp at South Airport Boulevard							
Left/through	740	473	176	492	188	492	182
Right	740	45	33	46	34	46	34

Notes: Ramps analyzed using Synchro software.

“\*” indicates additional analysis with Simtraffic software.

Queues do not take into account downstream spillover from adjacent intersections. Storage distance and queues in feet per lane. While some queues exceed available storage, project-related traffic does not contribute to the queues for these lanes.

Source: Fehr & Peers, 2021.

**Impact TR-3c: The project would not substantially increase hazards at at-grade rail crossings. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

The Specific Plan area is adjacent to an active rail corridor used by both Caltrain and freight operations. Under existing conditions, Caltrain operates five trains per hour in each direction during peak periods and one or two trains per hour in each direction during off-peak periods; one or two trains per day operate during late evening hours. In 2022, the Peninsula Corridor Electrification Project will increase Caltrain service to six trains per hour in each direction during peak periods. By 2040, Caltrain would operate eight trains per hour in each direction, and California High-Speed Rail would operate four trains per hour in each direction, for a total of 12 trains per hour in each direction.

Vehicle traffic associated with the project would increase traffic volumes at the existing at-grade rail crossings on South Linden Avenue and Scott Street. Although a grade separation is planned independent of the project, the at-grade crossing condition was analyzed to reflect a worst-case scenario, given the grade separation is currently unfunded and not yet approved. The project’s design of Southline Avenue maintains flexibility for a future grade separation; in the interim, it includes a reconfigured at-grade rail crossing to connect Southline Avenue to South Linden Avenue, immediately east of Dollar Avenue. The number of vehicles using this at-grade crossing would increase from both project-generated trips and the construction of Southline Avenue, which would provide a new east–west connection to Sneath Lane.

**Table 4.15-9, p. 4.15-44**, shows storage space and simulated queuing activity under 2040 plus-project buildout conditions. With the project, the potential exists for queues to exceed the available amount of storage for westbound movements at Southline Avenue and Dollar Avenue. However, by synchronizing the traffic signal with the at-grade crossing, as provided in the proposed Specific Plan, the project would minimize any potential risk of conflict because vehicles would be “flushed out” from the rail crossing prior to the arrival of an approaching train. The inclusion of the project’s proposed medians on either side of the at-grade rail crossing would also enhance safety by inhibiting vehicle maneuvering around crossing gates. Consequentially, even though the queue storage is exceeded, the risk of conflicts related to the project would not change substantially relative to the existing condition due to signal synchronization and added design features, so the impact would be less than significant.

The second rail crossing potentially affected by the project is at Scott Street, about 1,200 feet south of the Specific Plan area. No changes to the Scott Street at-grade rail crossing would occur with the project. By adding Southline Avenue and creating a more direct connection between Huntington Avenue and San Mateo Avenue, the project would decrease traffic volumes on Scott Street compared with no-project conditions. Because the total number of vehicles crossing the corridor at this location would decrease, the project would not exacerbate potential safety hazards.

**Table 4.15-9. Queuing at Linden Avenue At-Grade Rail Crossing – 2040 Project Buildout**

Intersection	Movement	Storage Space	Average Queue Length (feet)	95 <sup>th</sup> -Percentile Queue Length (feet)	Queue exceeds storage?
<b>AM Peak Hour</b>					
Southline Avenue/Dollar Avenue	WBT	80	<b>170</b>	<b>300</b>	<b>Yes</b>
Southline Avenue/Dollar Avenue	WBL	60	<b>160</b>	<b>290</b>	<b>Yes</b>
Linden Avenue/San Mateo Avenue	SBT	450	100	140	No
Linden Avenue/San Mateo Avenue	SBL	450	190	250	No
<b>PM Peak Hour</b>					
Southline Avenue/Dollar Avenue	WBT	80	<b>530</b>	<b>600</b>	<b>Yes</b>
Southline Avenue/Dollar Avenue	WBL	60	<b>530</b>	<b>600</b>	<b>Yes</b>
Linden Avenue/San Mateo Avenue	SBT	450	190	250	No
Linden Avenue/San Mateo Avenue	SBL	450	320	390	No

Notes: Bold type indicates conditions where queue length exceeds storage capacity.

Source: Fehr & Peers, 2021.

Therefore, the project at buildout would have a **less-than-significant** impact relating to hazards at at-grade rail crossings, and no mitigation is required.

## Phase 1

The impacts of Phase 1 would be the same as those of the project since Phase 1 is a component of the overall project. The proposed infrastructure changes described above, including the proposed Southline Avenue extension, would be constructed during Phase 1. Therefore, for the reasons stated above in the project analysis, Phase 1 would have a **less-than-significant** impact related to at-grade rail crossings. No mitigation is required.

**Impact TR-3d: The project would contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants. Phase 1 would not contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants. (Project: Significant and Unavoidable; Phase 1: Less than Significant)**

## Project

A signal warrant analysis to determine the need for traffic signals at unsignalized intersections within the project site was conducted to assess potential hazards associated with project-related vehicle and pedestrian volumes. The assessment was conducted in accordance with the criteria in the *California Manual on Uniform Traffic Control Devices* (CA-MUTCD). Signal warrants were tested for project driveways according to the peak-hour and pedestrian volume methodologies described in the CA-MUTCD, Sections 4C.04 and 4C.05. No driveways meet peak-hour signal warrants under project conditions. One driveway intersection at Maple Avenue (south of Building 4) could meet pedestrian volume warrants; however, the project's proposed "rectangular rapid flashing beacon" is expected to provide adequate prioritization for pedestrians crossing at this location and fulfill the anticipated need. Therefore, signal warrants are not met within the project site.

Beyond the project site, a signal warrant analysis was conducted for the intersection of Huntington Avenue/Herman Street/Forest Lane to assess potential hazards associated with project-related vehicle volumes. This intersection, which is located within the City of San Bruno and is presently all-way stop controlled, was selected because of the volume of project-related vehicle traffic that would be added along multiple approaches (e.g., Huntington Avenue and Herman Street). Signal warrants were tested according to the peak-hour methodology described in the CA-MUTCD, Section 4C.04. There are no other unsignalized intersections on nearby streets where the project is expected to add substantial traffic volumes at unsignalized approaches.

The Huntington Avenue/Herman Street/Forest Lane intersection meets the peak-hour signal warrant under 2040 future baseline and with-project buildout conditions during the PM peak hour. The project at buildout would add approximately 301 of 1,855 PM peak-hour trips (approximately 16 percent), to this already impacted intersection. The addition of project-related trips may exacerbate the risk of collision at this multi-lane, stop-controlled intersection, which experienced eight reported injury collisions between 2014 and 2019 (five vehicle/vehicle collisions, two vehicle/pedestrian collisions, and one vehicle/bicycle collision).<sup>17</sup> Therefore, the project would result in a potentially significant impact.

Installation of a traffic signal at the Huntington Avenue/Herman Street/Forest Avenue intersection, located in the City of San Bruno, would reduce the anticipated 2040 future baseline and with-project buildout impacts to a less-than-significant level. Accordingly, the project's contribution to the impact could be fully mitigated by paying a fair-share contribution toward installation of a traffic signal at this intersection. However, this traffic signal is not presently included in a capital improvement or fee program adopted by the City of San Bruno, and therefore, the City of San Bruno does not have a mechanism for funding this mitigation and cannot ensure this mitigation will be implemented. Moreover, assuming that this traffic signal were to be included in a capital improvement or fee program adopted by the City of San Bruno, because the intersection and any

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<sup>17</sup> California Statewide Integrated Traffic Records System, 2014–2019, retrieved from the Transportation Injury Mapping System.

such fee program would be under the control and jurisdiction of San Bruno, the City of South San Francisco would not be able to guarantee that this mitigation measure would be implemented.

There are no other feasible mitigation measures available. The potentially hazardous condition results from a lack of signal control at the intersection; consequently, there are no physical changes (such as modifying lane configurations) or operational changes (such as modifying stop controls) that would address the impact.

Therefore, while mitigation exists that could reduce the Project Buildout contribution to the impact on this intersection to a less-than-significant level, because a funding mechanism does not exist, and because implementation of this mitigation is outside of the jurisdiction of the City of South San Francisco, the impact would remain ***significant and unavoidable***.

## Phase 1

The Huntington Avenue/Herman Street/Forest Lane intersection meets the peak-hour signal warrant under 2024 Baseline conditions. Phase 1 would add approximately 11 PM peak-hour vehicle trips at the intersection. The 11 vehicle trips associated with Phase 1 would not materially change conditions or exacerbate the risk of collisions relative to 2024 Baseline conditions. Therefore, Phase 1 would have a ***less-than-significant*** impact related to traffic signal warrants, and no mitigation is required.

**Impact TR-4: The project would not have a detrimental impact on emergency access. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

The project's potential to affect emergency vehicle access would be associated with design features that would not fully accommodate emergency vehicles or project-generated vehicle traffic that would cause emergency vehicles to be slowed or unable to access the site or surrounding areas. The project would increase vehicular delay on several roadways and at several nearby intersections; however, this delay would not be bidirectional, and emergency vehicles would retain the ability to use other traffic lanes to circumvent traffic congestion. In particular, vehicles leaving the San Bruno police station at 1177 Huntington Avenue would retain the ability to travel both with and against the flow of traffic should an emergency response be necessary directly from the station (emergency responses from police vehicles usually occur from the field). In addition, the project would provide an additional route for emergency vehicles to access the project vicinity through construction of the new east-west Southline Avenue and the new intersection at Sneath Lane, Huntington Avenue, and Southline Avenue. Emergency vehicles traveling from the north and east in South San Francisco would not be substantially affected by the project as they would retain the ability to access the project site via Maple Avenue and South Linden Avenue. Therefore, the project at buildout would have a ***less-than-significant*** impact on emergency vehicle access, and no mitigation is required.

## Phase 1

The impacts of Phase 1 would be the same as those of the project since Phase 1 is a component of the overall project. The proposed infrastructure changes described above, including the proposed Southline Avenue extension and new intersection, would be constructed during Phase 1. Therefore, for the reasons stated above in the project analysis, Phase 1 would have a ***less-than-significant*** impact related to emergency vehicle access. No mitigation is required.

**Impact TR-5a: The project would not result in substantial delay or overcrowding on transit vehicles. (Project: Less than Significant; Phase 1: Less than Significant)****Project****Bus Services (SamTrans)**

The project would generate vehicle trips in the vicinity of existing transit services, which could contribute toward delays for transit operations. To assess the project's potential effects on transit travel times and delay, Vissim traffic analysis software was used to determine travel times for SamTrans' ECR bus route, which diverts to Sneath Lane from El Camino Real to serve the San Bruno BART station. This route was analyzed because it provides the most frequent service and would be most heavily exposed to project-related delays; the findings would also apply to those portions of the 140 and 141 bus routes that overlap the ECR route.

**Table 4.15-10, p. 4.15-47**, shows travel times along transit routes under 2040 future baseline and 2040 plus-project buildout conditions. Travel times are for the portion of each route that travels from El Camino Real along Sneath Lane to the BART station, then returns El Camino Real; this represents approximately 1 mile of travel.

**Table 4.15-10. Average ECR Round Trip Travel Times between El Camino Real and the San Bruno BART Station**

Study Period	Round-Trip Transit Travel Time (minutes)			
	Existing	2040 Future Baseline	2040 Plus Project Buildout	Project Effect (2040)
AM Peak Hour (ECR northbound)	6	6	7	+1
AM Peak Hour (ECR southbound)	7	7	8	+1
PM Peak Hour (ECR northbound)	6	6	9	+3
PM Peak Hour (ECR southbound)	8	8	11	+3

Notes: Travel times include the time needed to travel through the El Camino Real/Sneath Lane intersection from the route diversion through the San Bruno BART station. Values rounded to nearest minute. Based on Vissim simulation. Source: Fehr & Peers, 2021.

The project would result in a change in transit travel times for the ECR route along Sneath Lane, totaling about 1 minute each way in the AM peak hour and 3 minutes each way in the PM peak hour. During the PM peak hour, congestion associated with added vehicle trips at the split-phase signal at the El Camino Real/Sneath Lane intersection represents the primary source of delay. Because the route operates every 15 minutes during the AM and PM peak periods and has a one-way travel time of about 110 minutes, this change in travel time is unlikely to affect the route's performance overall or require additional buses to maintain comparable headways.

With respect to potential crowding, a relatively small share of project travel is expected to occur on SamTrans; with approximately 70 to 80 peak-hour trips, this would translate to roughly five to ten passengers per bus. SamTrans presently has adequate capacity for this demand and is likely to be able to accommodate project trips in the future.

### Rail Services (BART and Caltrain)

The project is anticipated to add new transit trips on BART and Caltrain during the AM and PM peak commute periods. BART and Caltrain currently experience peak-period crowding along certain segments of key routes. The majority of transit trips would occur on BART (up to 800 to 900 project-related peak-hour trips under project conditions); trips would also occur on Caltrain (300 to 400 peak-hour trips).

Project-related BART trips would largely travel in the “reverse-peak direction,” for which BART has ample capacity. Under existing conditions, about 60 to 65 percent of BART passengers riding between San Bruno and South San Francisco are traveling northbound in the “peak direction” during the AM peak hour and southbound during the PM peak hour. The San Bruno station mirrors these patterns, with most passengers entering the station during the AM peak hour and exiting during the PM peak hour. The project would increase jobs accessible from San Bruno Station, resulting in an increase in passenger volumes exiting the station during the AM peak hour and entering the station during the PM peak hour. Under project buildout conditions, the total number of reverse peak direction passengers entering/exiting the station or waiting on the platform would be similar to the number of peak commute direction under existing conditions. As illustrated in **Table 4.15-11, p. 4.15-48**, under project buildout conditions, the total number of PM station entries would be 926, approximately 200 more entries than the existing 718 in the AM peak hour. In both the AM and PM peak periods, BART trains and platforms at the San Bruno station have adequate capacity to handle these increases in passenger volumes.

**Table 4.15-11. Project Buildout Effect on Total Activity at San Bruno BART Station**

Direction		Project Buildout BART Trip Generation	2019 Passenger Count	2019 + Project Buildout
<b>San Bruno BART Station Passenger Volumes</b>				
AM	Entries (Peak)	65	718	783
AM	Exits (Reverse Peak)	816	187	1,003
PM	Exits (Peak)	105	679	784
PM	Entries (Reverse Peak)	678	248	926
<b>San Bruno – South San Francisco Segment</b>				
AM	Northbound (Peak)	65	2,102	2,167
AM	Southbound (Reverse Peak)	816	1,267	2,083
PM	Southbound (Peak)	105	2,013	2,118
PM	Northbound (Reverse Peak)	678	1,073	1,751
<b>Transbay Tube (Embarcadero – West Oakland Segment)</b>				
AM	Westbound (Peak)	122	17,395	17,517
PM	Eastbound (Peak)	102	15,839	15,941

Notes: In/out split for BART passengers assumed to be similar to vehicle trip generation. Source: BART, 2019, Fehr & Peers, 2021.

BART capacity is highly constrained on service segments through the Transbay Tube between the East Bay (Oakland) and San Francisco. Based on existing ridership data, approximately 13 percent of BART riders entering or exiting the system at the San Bruno, South San Francisco, and Millbrae stations have an origin or destination in the East Bay and travel through the Transbay Tube (most stations in the East Bay are more than 40 minutes away). The project is expected to result in similar

travel patterns, adding approximately 100 to 120 trips to the Transbay Tube during peak hours (roughly 13 percent of project-related peak hour BART trips). Although capacity is highly constrained during these periods, this represents less than a 1 percent contribution to total ridership on this segment of the system under existing conditions and under cumulative conditions as well. In addition, trips would be spread across multiple trains during each peak hour, with an expected increase of only 15 to 20 riders per train, representing one or two additional passengers in each BART car. Therefore, the project would not detrimentally affect BART performance or cause substantial crowding.

Caltrain riders would access the project from the South San Francisco or San Bruno stations, depending on service schedules after completion of the Peninsula Corridor Electrification Project. Trip distribution on Caltrain is expected to roughly mirror existing conditions, with about two-thirds of project-related travel traveling northbound in the AM peak period and southbound in the PM peak period. This distribution would result in approximately 233 northbound passengers during the AM peak period and 195 southbound passengers during the PM peak period. Spread across six trains per hour in each direction, the project would add an average of about 30 to 40 passengers per train, or about five or six passengers per train car. Upon completion of the Peninsula Corridor Electrification Project, Caltrain would have the capacity for 5,400 passengers per hour in each direction, with about 900 passengers per train and six trains operating per hour in each direction. Because the project's contribution to Caltrain capacity would amount to approximately 4 percent or less, it is anticipated that the project would not detrimentally affect Caltrain performance or cause substantial crowding.

Therefore, the project at buildout would have a ***less-than-significant*** impact on transit performance, and no mitigation is required.

## Phase 1

The impacts of Phase 1 would be the same as those of the project since Phase 1 is a component of the overall project with a similar transit mode share and less overall transit ridership. Therefore, for the reasons stated above in the project analysis, Phase 1 would have a ***less-than-significant*** impact on transit performance, and no mitigation is required.

**Impact TR-5b: The project would not have a detrimental impact on bicycle or pedestrian facilities. (Project: Less than Significant; Phase 1: Less than Significant)**

## Project

The project would add approximately 1,000 to 1,100 pedestrian and bicycle trips to and from the site during the AM and PM peak hours (of which 90 percent would be walking or biking to or from transit). In particular, the project is likely to add bicycle trips along the Centennial Way Trail, Huntington Avenue, South Linden Avenue, and Sneath Lane, which are designated bicycle routes in the cities of South San Francisco and San Bruno.

Most project-related pedestrian and bicycle trips would be concentrated along Huntington Avenue between the Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue entrance and the San Bruno BART Station entrance. To address this increased demand, the project would extend the Centennial Way Trail to the San Bruno BART Station, providing an approximately 15- to 17-foot-wide multi-use path along the west side of Huntington Avenue. A Viswalk analysis of Huntington Avenue evaluated "pedestrian space," described as the average amount of area available for a

pedestrian walking along a trail, sidewalk, or crosswalk (the inverse of pedestrian density). The *Highway Capacity Manual* (HCM) 6<sup>th</sup> Edition provides a qualitative description of the pedestrian space that can be used to evaluate the performance of pedestrian facilities. Since pedestrians are anticipated to comprise the vast majority of users on the Centennial Way Trail during peak hours, analyzing pedestrian space helps illustrate how much room remains for bicyclists to pass pedestrians as well as the potential for conflicts between modes. This scale is summarized in **Table 4.15-12, p. 4.15-50**, which shows a worst-case condition for pedestrian space experienced by users of the Centennial Way Trail during the AM and PM peak hours.

**Table 4.15-12. Pedestrian Space Crowding Scale**

<b>Pedestrian Space (square feet per pedestrian)</b>	<b>Description</b>
> 60	Ability to move in desired path, no need to alter movements
> 40-60	Occasional need to adjust path to avoid conflicts
> 24-40	Frequent need to adjust path to avoid conflicts
> 15-24	Speed and ability to pass slower pedestrians restricted
> 8-15	Speed restricted, very limited ability to pass slower pedestrians
<= 8	Speed severely restricted, frequent contact with other users

Notes: Based on the *Highway Capacity Manual* 6<sup>th</sup> Edition

Source: Fehr & Peers, 2021.

The Viswalk analysis shown in **Figure 4.15-7, p. 4.15-51**, indicates that the proposed trail extension is sufficiently sized to accommodate pedestrian and bicycle volumes under project buildout conditions. Although there is some potential for crowding to occur at the southwest corner of the Huntington/BART intersection during the AM peak hour as pedestrians wait for the 'walk' signal, the adequate duration of the walk phase and the lack of conflicts with vehicular movements would allow all pedestrians to cross in the same signal cycle. The high volume of pedestrians after a BART train arrival would control the speed of travel on the proposed multi-use path adjacent to the station. As pedestrians and bicyclists travel farther from the station, spacing between pedestrians would increase, allowing bicyclists to comfortably pass. Therefore, the proposed design is unlikely to pose a hazardous condition.

The project would also add vehicle trips along designated bicycle routes and in areas with high levels of pedestrian activity. These areas include Huntington Avenue, South Linden Avenue, Sneath Lane, and San Bruno Avenue as well as the edge of downtown San Bruno and downtown South San Francisco. However, because project traffic would be distributed across several routes while accessing freeway ramps, walking and biking conditions are not expected to be adversely affected by the project.

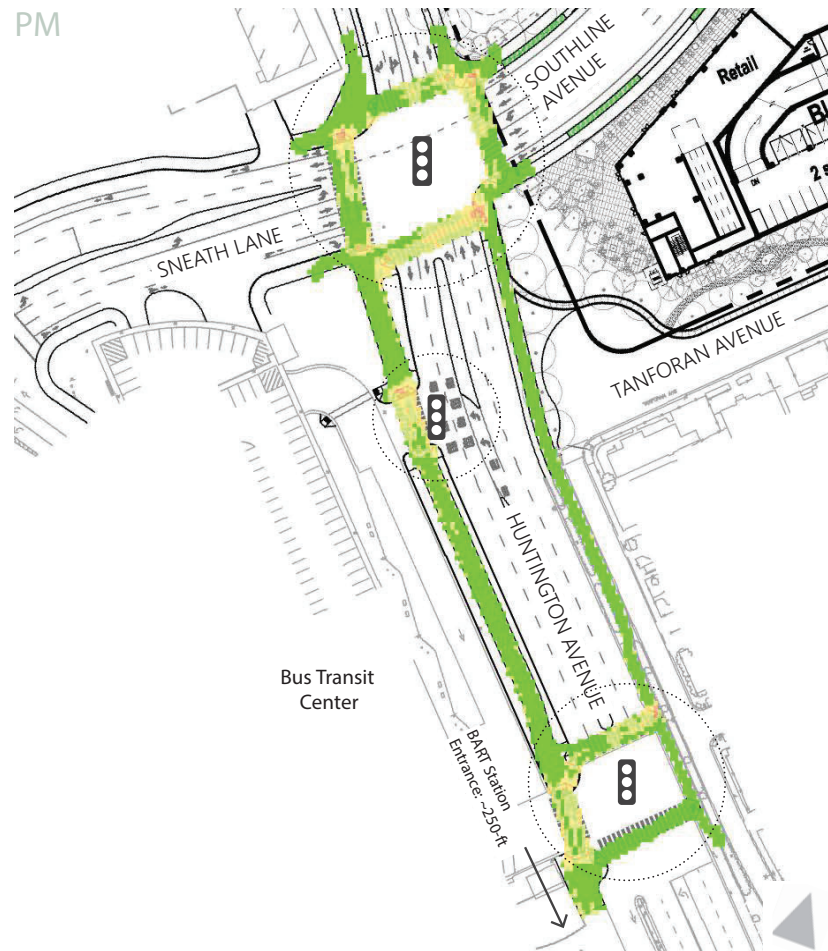
Construction activity during project construction could result in temporary bikeway and sidewalk closures as well as effects on pedestrian and bike circulation due to construction trucks or an increase in vehicle trips. These types of construction-related changes would be temporary, generally short term, and conducted in accordance with City requirements to develop a Construction Management Plan compliant with the California Manual on Uniform Traffic Control Devices (CA-MUTCD) that would provide for temporary bicycle and pedestrian crossing during construction activities.



Pedestrian Space  
(square feet per pedestrian)

>60	Ability to move in desired path, no need to alter movements
>40-60	Occasional need to adjust path to avoid conflicts
>24-40	Frequent need to adjust path to avoid conflicts
>15-24	Speed and ability to pass slower pedestrians restricted
>8-15	Speed restricted, very limited ability to pass slower pedestrians
<=8	Speed severely restricted, frequent contact with other users
Undefined	Undefined

Source: Fehr & Peers, 2021.



**Figure 4.15-7**  
**Pedestrian Spacing – AM and PM Peak Hours**

The project at buildout would not detrimentally affect the performance or safety of pedestrian and bicycle facilities; therefore, the project would have a ***less-than-significant*** impact on bicycle and pedestrian conditions, and no mitigation is required.

## Phase 1

The impacts of Phase 1 would be the same as those of the project since Phase 1 is a component of the overall project and would have a similar bicycle and pedestrian mode share with lower overall volumes. The proposed bicycle and pedestrian infrastructure changes described above, including the proposed Southline Avenue extension and new intersection, would be constructed during Phase 1. Therefore, for the reasons stated above in the project analysis, Phase 1 would have a ***less-than-significant*** impact on bicycle and pedestrian conditions, and no mitigation is required.

### 4.15.4.5 Cumulative Impacts

Cumulative plus-project conditions represent the 2040 future baseline condition with the addition of the project at buildout. Therefore, the impact evaluation above considered cumulative plus project conditions; as a result, the analysis above considers cumulative impacts. Cumulative impacts are restated here for ease of reference.

**Impact C-TR-1: The project, inclusive of Phase 1, together with the cumulative projects identified, would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

As discussed under **Impact TR-1**, the project, inclusive of the Phase 1 development, would have a less-than-significant impact related to inconsistency with transportation-related plans and policies. Cumulative development projects would be subject to design review and CEQA review, if applicable, to ensure consistency with transportation-related plans and policies. Cumulative impacts would be ***less than significant***. No mitigation is required.

**Impact C-TR-2: The project, inclusive of Phase 1, together with the cumulative projects identified, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). (Project: *Less than Cumulatively Considerable*; Phase 1: *Less than Cumulatively Considerable*)**

As discussed under **Impact TR-2**, the project, inclusive of the Phase 1 development, meets the criteria set by OPR and CEQA statutes to establish the presumption of a less-than-significant impact on VMT. Thus, the project's VMT impact is also considered to be ***less than cumulatively considerable***. No mitigation is required.

**Impact C-TR-3a: The project, inclusive of Phase 1, together with the cumulative projects identified, would not substantially increase hazards due to a geometric design feature or incompatible uses. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

As discussed under **Impact TR-3a**, the project, inclusive of the Phase 1 development, would have a less-than-significant impact related to design hazards. Design hazards are site-specific impacts, and none of the cumulative development projects are located within sufficient proximity to the project site to have the potential to combine with the project to create a substantial design hazard. Cumulative impacts would be ***less than significant***. No mitigation is required.

**Impact C-TR-3b: The project, inclusive of Phase 1, together with the cumulative projects identified would not substantially increase hazards due to freeway ramp queuing. (Project: Less than Significant; Phase 1: Less than Significant)**

As discussed under **Impact TR-3b**, the project, inclusive of the Phase 1 development, would have a less-than-significant impact related to freeway queuing. The analysis is based on cumulative 2040 traffic conditions. Therefore, cumulative impacts would be *less than significant*. No mitigation is required.

**Impact C-TR-3c: The project, inclusive of Phase 1, together with the cumulative projects identified would not substantially increase hazards at at-grade rail crossings. (Project: Less than Significant; Phase 1: Less than Significant)**

As discussed under **Impact TR-3c**, the project, inclusive of the Phase 1 development, would have a less-than-significant impact related to at-grade rail crossings. The analysis is based on cumulative 2040 traffic conditions. Therefore, cumulative impacts would be *less than significant*. No mitigation is required.

**Impact C-TR-3d: The project, inclusive of Phase 1, together with the cumulative projects identified would contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants. (Project: Significant and Unavoidable; Phase 1: Less than Cumulatively Considerable)**

As discussed under **Impact TR-3d**, the Huntington Avenue/Herman Street/Forest Lane intersection meets the peak-hour signal warrant under no-project and with-project conditions during the PM peak hour. The project would add approximately 301 PM peak-hour trips, which would affect intersection operations more substantially. While mitigation exists that could reduce the Project Buildout contribution to the impact on this intersection to a less-than-significant level, no funding mechanism exists, and implementation of this mitigation is outside of the jurisdiction of the City of South San Francisco. Therefore, cumulative impacts would be *significant and unavoidable*, and the project's contribution would be cumulatively considerable. Given the limited number of trips that would result from Phase 1, Phase 1's contribution would be *less than cumulatively considerable*.

**Impact C-TR-4: The project, inclusive of Phase 1, together with the cumulative projects identified would not have a detrimental impact on emergency access. (Project: Less than Significant; Phase 1: Less than Significant)**

As discussed under **Impact TR-4**, the project, inclusive of the Phase 1 development, would have a less-than-significant impact related to emergency access. Emergency access impacts are site-specific impacts, and none of the cumulative development projects are located within sufficient proximity to the project site to have the potential to combine with the project to create a detrimental impact on emergency access. Cumulative impacts would be *less than significant*. No mitigation is required.

**Impact C-TR-5a: The project, inclusive of Phase 1, together with the cumulative projects identified would not result in substantial delay or overcrowding on transit vehicles. (Project: Less than Significant; Phase 1: Less than Significant)**

As discussed under **Impact TR-5a**, the project, inclusive of the Phase 1 development, would have a less-than-significant impact related to transit performance. The analysis is based on cumulative

2040 conditions. Therefore, cumulative impacts would be *less than significant*. No mitigation is required.

**Impact C-TR-5b: The project, inclusive of Phase 1, together with the cumulative projects identified would not have a detrimental impact on bicycle or pedestrian facilities. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

As discussed under **Impact TR-5b**, the project, inclusive of the Phase 1 development, would have a less-than-significant impact on bicycle and pedestrian facilities. Impacts on bicycle and pedestrian facilities are site-specific, and none of the cumulative development projects are located within sufficient proximity to the project site to have the potential to combine with the project to create a detrimental impact on bicycle and pedestrian facilities. Cumulative impacts would be *less than significant*. No mitigation is required.

## 4.16 Tribal Cultural Resources

### 4.16.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the Specific Plan (Phase 1), on tribal cultural resources. This section also describes existing conditions at the project site, including the Phase 1 site, as well as the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described.

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. The NOP comments pertaining to tribal cultural resources include a response from the Native American Heritage Commission (NAHC). The NAHC confirmed that the NOP was received and provided a response summarizing the statutory requirements related to tribal consultation under Assembly Bill (AB) 52 and Senate Bill (SB) 18; no request for tribal consultation was received. A summary of AB 52/SB 18 notification for the project is included below in Section 4.16.4.2. *Approach to Analysis*, and responses received are included in **Appendix 4.16-1**.

### 4.16.2 Environmental Setting

#### 4.16.2.1 Historic Setting

Information about ethnographic lifeways and the post-contact history of Native Americans who traditionally inhabited the vicinity of the project site is provided in Section 4.4, *Cultural Resources*, of this EIR.

#### 4.16.2.2 Existing Setting

The Specific Plan area is developed with office and industrial buildings as well as surface parking lots. The off-site improvement areas consist of rights-of-way and easements located in the cities of South San Francisco and San Bruno. The off-site improvement areas are developed with circulation and utility infrastructure and do not contain any buildings or structures.

Information about the existing setting relevant to tribal cultural resources, both in the surrounding area and on project site, including the Phase 1 site, is provided in Section 4.4, *Cultural Resources*, of this EIR. As discussed therein, the records search conducted for the proposed project identified two prehistoric shell midden sites within a 0.25-mile radius of the project site. No tribal cultural resources were identified within the project site.

### 4.16.3 Regulatory Framework

This section provides a summary of state laws related to tribal cultural resources. For purposes of this analysis, there are no other applicable local, regional, or federal policies or regulations that affect the project site.

#### 4.16.3.1 State

As described in Section 4.4, *Cultural Resources*, of this EIR, archaeological, historical, and tribal cultural resources are protected under a variety of state policies and regulations, as enumerated under the California Public Resources Code (PRC). Tribal cultural resources, which are recognized as nonrenewable resources, receive additional protection under the California Environmental Quality Act (CEQA).

- PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet the listing criteria of the National Register of Historic Places (NRHP), including significant tribal cultural resources. It further specifically requires the California Department of Transportation to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed or eligible for listing in the NRHP or registered or eligible for registration as California Historical Landmarks.
- California PRC Sections 5097.9–5097.991 provide protection to Native American historical and cultural resources as well as sacred sites. The sections also identify the powers and duties of the NAHC and require notification of descendants when Native American human remains are discovered. They also provide for the treatment and disposition of human remains and associated grave goods.
- PRC Sections 21080.3.1, 21080.3.2, 21084.2 and 21084.3 codify the key points of AB 52 (Chapter 532, Statutes of 2014), which establishes a formal consultation process for California Native American tribes as part of CEQA, as set forth in more detail below.

#### Senate Bill 18

Senate Bill (SB) 18 was established in September 2004 and requires local governments to consult with California Native American tribes prior to preparing or amending both general plans (as defined in California Government Code §65300 et seq.) and specific plans (as defined in (defined in Government Code §65450 et seq). The purpose of this consultation is to include California Native American tribes early in the planning process to allow for the identification and protection of cultural resources. This process also allows cultural resources to be considered during the broad scale local and region planning process rather than at a project level. The following includes a sequential list of local government responsibilities:

- Local governments must notify appropriate tribes, as identified by the Native American Heritage Commission (NAHC), prior to the adoption or amendment of a general plan or specific plan.
- Tribes have 90 days from the receipt of notification to request consultation (Government Code §65352.3).

- Prior to the adoption or substantial amendment of a general plan or specific plan, local governments must refer the proposed action to the appropriate tribes, as identified by the NAHC, regardless of whether previous consultation has taken place.
- Local governments must allow a 45-day comment period (Government Code §65352),
- Local governments must provide notice of public to all tribes who have filed a written request for such notice at least 10 days prior to the hearing (Government Code §65092).

### **Assembly Bill 52**

Following adoption of SB 18, tribal cultural resources were identified as a distinct CEQA environmental category with the adoption of AB 52 in September 2014. For all projects that are subject to CEQA and filed an NOP, or notice of negative declaration or mitigated negative declaration on or after July 1, 2015, AB 52 requires the lead agency on a proposed project to consult with the geographically affiliated California Native American tribes. (CEQA Section 21018.3.1). The legislation creates a broad new category of environmental resources, “tribal cultural resources,” which must be considered under CEQA. AB 52 requires a lead agency to not only consider the resource’s scientific and historical value but also whether it is culturally important to a California Native American tribe.

AB 52 defines tribal cultural resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included in or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR); included in a local register of historical resources, as defined in PRC Section 5020.1(k); or determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria of PRC Section 5024.1(c) (CEQA Section 21074).

The CRHR criteria for the listing of resources, as defined in PRC Section 5024.1(c), are the following:

1. The resource is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
2. The resource is associated with the lives of persons important in our past.
3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
4. The resource has yielded, or may be likely to yield, information important in prehistory or history.

AB 52 also sets up an expanded consultation process. For projects initiated after July 1, 2015, lead agencies are required to provide notice of the proposed projects to any tribe that is traditionally and culturally affiliated with the geographic area and that requested to be informed by the lead agency, following PRC Section 21018.3.1(b). If, within 30 days, a tribe requests consultation, the consultation process must begin before the lead agency can release a draft environmental document. Consultation with the tribe may include a discussion regarding the type of review necessary, the significance of tribal cultural resources, the significance of the project’s impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The consultation process will be deemed concluded when either (a) the parties agree to mitigation measures or (b) any party concludes, after a good-faith effort, that an agreement cannot be reached. Any mitigation measures agreed to by the tribe and lead agency must be recommended for inclusion in the

environmental document. If a tribe does not request consultation, or otherwise assist in identifying mitigation measures during the consultation process, a lead agency may still consider mitigation measures if the agency determines that a project will cause a substantial adverse change to a tribal cultural resource.

## 4.16.4 Impacts and Mitigation Measures

This section describes the impact analysis related to tribal cultural resources for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

### 4.16.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant tribal cultural resources impact if it would:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is:
  - Listed or eligible for listing in the CRHR or in a local register of historical resources, as defined in PRC Section 5020. 1(k), or
  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

### 4.16.4.2 Approach to Analysis

The project site and surrounding area were studied to determine whether tribal cultural resources are potentially present and, if so, the potential impacts of the proposed project on those resources. Several methodologies were employed for the purpose of determining the presence of tribal cultural resources.

#### Records Search

As described Section 4.4, *Cultural Resources*, of this EIR, a records search was conducted through the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) on June 16, 2020. The records search included previously conducted cultural resources studies and previously recorded archaeological resources (which could include tribal cultural resources) both within the project site and within 0.25-mile of the project site. The records search identified 17 previous cultural resources studies that were conducted within 0.25 mile of the project site, including two studies within the project site. The records search concluded that there are no known cultural resources (including tribal cultural resources) within the project site. Three archaeological resources have been previously identified within 0.25 mile of the project site (outside of the project site area), as shown in **Table 4.4-1** in Section 4.4, *Cultural Resources*; none of these resources have been identified as a tribal cultural resource. Two of these previously identified

archaeological resources, P-41-000048 (CA-SMA-44) and P-41-000051 (CA-SMA-47), are prehistoric shell midden sites, and one, P-41-000207, consists of the Tanforan Detention Center.

### Native American Consultation

On June 3, 2020, the City of South San Francisco (City) sent notification letters, pursuant to AB 52 and SB 18, to the following five individuals, who have been designated as contacts of or representatives of tribes traditionally and culturally affiliated with the vicinity of the project site and who have requested notification of proposed projects in this geographic area. A 90-day review period was provided for comments and/or requests for consultation. A record of the City's notification letters and responses received are included in **Appendix 4.16-1** of this EIR.

- Tony Cerda, Chairperson – Costanoan Rumsen Carmel Tribe
- Irenne Zwierlein, Chairperson – Amah Mutsun Tribal Band of Mission San Juan Bautista
- Rosemary Cambra, Chairperson – Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- Andrew Galvan – The Ohlone Indian Tribe
- Ann Marie Sayers, Chairperson – Indian Canyon Mutsun Band of Costanoan

On June 10, 2020, Mr. Galvan contacted the City, inquiring where the project was located and whether a literature review or pedestrian survey had been conducted for the project. He also requested a copy of reports of such survey if conducted. The City responded on June 11, providing Mr. Galvan with the project location and letting him know that they would follow up regarding the literature review and pedestrian survey. On June 16, the City followed up with Mr. Galvan, stating that both are under way and that the City will notify him when a literature review or pedestrian survey are ready for review.

Additionally, as described above, the NOP comments pertaining to tribal cultural resources include a response from the NAHC, who confirmed that the NOP was received and summarized statutory requirements related to tribal consultation under AB 52 and SB 18; no request for consultation was received. NAHC's response to the NOP is included in **Appendix 1**.

No additional correspondence occurred, and none of the tribal representatives who were contacted by the City requested consultation on the project within the 90-day period, or subsequently.

### Buildout Scenario Studied (Office Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the proposed project would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the proposed project: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses 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's impacts to tribal cultural resources are site-specific, and analysis of the potential impacts related to tribal cultural resources is dependent on a number of factors, including the project location, proposed demolition, the amount of ground that would be disturbed, the type of

disturbance, the potential depth of excavation, and other factors. The two buildout scenarios would occur on the same parcels, so present no difference in location. Both scenarios would remove all existing uses in the Specific Plan area and would include implementation of the same off-site improvements. While the two potential buildout scenarios are similar, the Office Scenario has the greatest building footprint (543,315 square feet versus 531,765 square feet), lot coverage (49 percent versus 46 percent), and built area (2,800,000 square feet versus 2,025,050 square feet). Similarly, while both scenarios would have the same maximum depth of excavation (31 feet below grade surface), the Office Scenario would result in a greater excavation volume than the Life Sciences Scenario (688,400 cubic yards compared to 353,700 cubic yards). Therefore, the Office Scenario has a greater potential to result in significant impacts to tribal cultural resources and is analyzed as the “worst-case” scenario.

#### 4.16.4.3 Impact Evaluation

**Impact TCR-1: The project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the CRHR or in a local register of historical resources, as defined in PRC Section 5020. 1(k), or is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. (Project: *Less than Significant with Mitigation*; Phase 1: *Less than Significant with Mitigation*)**

##### Project

Although no known tribal cultural resources were identified during Native American consultation or the NWIC records search, the project has the potential to encounter previously undocumented prehistoric archaeological resources, as described in Section 4.4 *Cultural Resources*, of this EIR. These resources, in turn, have the potential to be tribal cultural resources. Therefore, the potential exists for previously undiscovered tribal cultural resources (as defined in Public Resources Code Section 21074.2) to be encountered during demolition or construction activities associated with the project. Furthermore, buried deposits may be eligible for listing in the CRHR. Therefore, this impact is considered potentially significant. However, implementation of **Mitigation Measures CR-2a, Mitigation Measure CR-2b, and Mitigation Measure CR-3** (as described in Section 4.4, *Cultural Resources*) would ensure that impacts related to tribal cultural resources would be ***less than significant with mitigation***.

##### Phase 1

For the reasons stated above in the project analysis, Phase 1 has the potential to encounter as-yet undocumented precontact archaeological deposits, which have the potential to be considered tribal cultural resources. This impact is considered potentially significant. Implementation of **Mitigation Measures CR-2a, Mitigation Measure CR-2b, and Mitigation Measure CR-3** (as described in Section 4.4, *Cultural Resources*) would ensure that impacts related to tribal cultural resources would be ***less than significant with mitigation***.

**Mitigation Measure CR-2a: Cultural Resources Worker Environmental Awareness Program (All Phases).** Refer to Section 4.4, *Cultural Resources*, of this EIR.

**Mitigation Measure CR-2b: Halt Construction Activity, Evaluate Find, and Implement Mitigation for Archaeological and Tribal Cultural Resources (All Phases).** Refer to Section 4.4, *Cultural Resources*, of this EIR.

**Mitigation Measure CR-3: Halt Construction Activity, Evaluate Remains, and Take Appropriate Action in Coordination with Native American Heritage Commission (All Phases).** Refer to Section 4.4, *Cultural Resources*, of this EIR.

#### 4.16.4.4 Cumulative Impacts

The cumulative geographic context for tribal cultural resources is the vicinity of the project site. The approach to cumulative impacts is described in Section 4.1.6, *Approach to Cumulative Analysis*.

**Impact C-TCR-1: The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on tribal cultural resources. (Project: Less than Cumulatively Considerable; Phase 1: Less than Cumulatively Considerable)**

The cumulative geographic context for tribal cultural resources is the immediate vicinity of the project site, which is the area where construction activities, including ground-disturbing activities, could encounter tribal cultural resources that may be present on or near the site. The cumulative projects within 0.5 mile of the project site are described in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR and shown in **Figure 4.1-1**.

The cumulative projects in the vicinity of the project site would be constructed on infill sites in highly disturbed areas. It is likely that the cumulative projects would be constructed on sites where the ground surface has been disturbed and/or covered with fill and gravel. Similar to the proposed project, all cumulative projects would be required to implement mitigation measures to ensure that project activities would not result in the inadvertent destruction of tribal cultural resources and that discovery procedures pertaining to human remains would be implemented. Nonetheless, cumulative impacts on tribal cultural resources are considered potentially significant because the reasonably foreseeable projects would most likely involve ground-disturbing activities that could uncover resources related to resources that could be uncovered by the project.

Implementation of **Mitigation Measure CR-2a**, **Mitigation Measure CR-2b**, and **Mitigation Measure CR-3** would ensure that the proposed project's contribution to cumulative impacts on tribal cultural resources would be *less than cumulatively considerable*.

## 4.17 Utilities and Service Systems

### 4.17.1 Introduction

This section evaluates the potential impacts related to the construction and operation of the Southline Specific Plan and off-site improvements (proposed project), including the first phase of development under the proposed project (Phase 1), on utilities and service systems. This section also describes the existing conditions at the project site, including the Phase 1 site, and the regulatory framework for this analysis. The impacts of the proposed project are generally analyzed at a program level, and the impacts of Phase 1 are analyzed at a project level. Impacts resulting from implementation of the proposed project, impacts resulting from implementation of Phase 1, and cumulative impacts are described. Feasible mitigation measures, where applicable, are also described. Relevant technical documentation used in this analysis includes:

- *Water Supply Assessment for the Southline Specific Plan, South San Francisco District, California Water Service – Draft (WSA)*, prepared for the proposed project by EKI Environment & Water, Inc. in July 2021 (**Appendix 4.17-1**);
- *Water Infrastructure Technical Study, Southline Development Project (Water Infrastructure Technical Study)*, prepared for the proposed project by BKF in December 2020 (**Appendix 4.17-2**);
- *Sanitary Sewer Technical Study, Southline Development Project (Sanitary Sewer Technical Study)*, prepared for the proposed project by BKF in January 2021 (**Appendix 4.17-3**);
- *Storm Drainage Technical Study, Southline Development Project (Storm Drainage Technical Study)*, prepared for the proposed project by BKF in April 2021 (**Appendix 4.9-1**);
- *Southline Project PG&E Electric/Dry Utility Planning Study, South San Francisco, CA (PG&E Electric/Dry Utility Planning Study)*, prepared for the proposed project by Power Systems Design in April 2021 (**Appendix 4.17-4**);
- Will-serve letter for the proposed project from the Pacific Gas and Electric Company (Gas Will-Serve Letter), dated March 16, 2021 (**Appendix 4.17-5**).

Issues identified in response to the Notice of Preparation (NOP) (**Appendix 1**) were considered in preparing this analysis. The NOP comments pertaining to utilities and service systems include a comment letter from Pacific Gas and Electric Company (PG&E) containing general comments regarding construction and development within and near PG&E easements, and comments from the City of San Bruno about the proposed project's potential impacts on San Bruno's utilities and service systems and the project's consistency with San Bruno's Green Infrastructure Plan. These issues are addressed below in Section 4.17.4, *Impacts and Mitigation Measures*.

With regard to impacts on San Bruno's utilities and service systems, the analysis evaluates: 1) impacts to San Bruno's storm drain system from development within the off-site improvement areas that flow to that system; and 2) impacts to wastewater conveyance and treatment facilities shared by the Cities of San Bruno and South San Francisco. No impacts would occur on San Bruno's water service because San Bruno and South San Francisco are served by different water systems and providers; the new development within the Specific Plan area would be served by Cal Water, as

described in Section 4.17.2, below. The proposed project does not propose any changes to San Bruno-owned water infrastructure, and the off-site improvements in San Bruno's jurisdiction would not generate a demand for water because they are limited to transportation and circulation improvements in areas currently developed with similar infrastructure. For the same reasons, the proposed project would have no potential impact on services provided by San Bruno's solid waste agency, Recology San Bruno. As discussed below, electricity, natural gas, and telecommunications services are provided by regional service providers, and there would be no impacts to San Bruno facilities or infrastructure.

## 4.17.2 Environmental Setting

This section provides a discussion of the existing conditions related to utilities and service systems serving the project site, inclusive of the Phase 1 site. Described utilities and service systems include: potable water supply and infrastructure; wastewater conveyance infrastructure and treatment facilities; stormwater conveyance infrastructure; solid waste collection and disposal facilities; and electricity, natural gas, and telecommunications infrastructure.

### Water

#### Regional

The City of South San Francisco (City) is served by the California Water Service Company (Cal Water), and is located in Cal Water's South San Francisco (SSF) District service area, which includes South San Francisco, Colma, a small portion of Daly City, and Broadmoor. The Cal Water South San Francisco District utilizes both groundwater supply from the Westside Basin and imported surface water supply purchased from the San Francisco Public Utilities Commission (SFPUC).<sup>1</sup>

The majority of the water supply to the Cal Water South San Francisco District (i.e., approximately 89% from 2005-2020) is treated water purchased from the City and County of San Francisco's Regional Water System (RWS), which is operated by the SFPUC. Within the South San Francisco District, Cal Water takes delivery from eleven active and two standby metered turnouts from RWS transmission lines. The RWS supply originates predominantly from the Sierra Nevada but also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties. Approximately 85% of the RWS supply is from the Tuolumne River via the Hetch-Hetchy Reservoir and aqueducts. The remaining 15% is from local watersheds and the San Antonio, Calaveras, Crystal Springs, Pilarcitos and San Andreas Reservoirs.<sup>2</sup>

The business relationship between San Francisco and its wholesale customers (including Cal Water) is largely defined by the Water Supply Agreement between the City and County of San Francisco and wholesale customers in Alameda County, San Mateo County, and Santa Clara County (Agreement) entered into in July 2009. The Agreement, which has a 25-year term, addresses water supply availability for the RWS as well as the methodology used by the SFPUC in setting wholesale water rates. The Agreement provides a 184 million gallons per day (MGD) Supply Assurance to the

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<sup>1</sup> EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan – Draft, South San Francisco District California Water Service. July 2021.

<sup>2</sup> Ibid.

SFPUC's wholesale customers collectively. Each wholesale customer's share of the 184 MGD is referred to as their Individual Supply Guarantee (ISG).<sup>3</sup>

Cal Water's contractual allocation of SFPUC supply is shared among its Bear Gulch, Mid-Peninsula, and South San Francisco Districts (Peninsula Districts). Cal Water's ISG for the Peninsula Districts is 35.68 MGD (39,993 acre-feet per year [AFY]). Cal Water's collective current and projected purchase quantities are approximately equal to an average of 29.38 MGD in 2020 and 30.35 MGD in 2045, respectively. Both current and projected quantities are less than Cal Water's ISG of 35.68 MGD.<sup>4</sup>

The RWS historically has met demand in its service area in all year types. However, the water available to SFPUC's retail and wholesale customers from the RWS is constrained by hydrology, physical facilities, and the institutional parameters that allocate the water supply of the Tuolumne River. In addition, statewide regulations and other factors can impact the system reliability. Of note, the adoption of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) is anticipated to impact the reliability of the RWS supplies in the future.<sup>5</sup> The Bay-Delta Plan Amendment was adopted by the State Water Resources Control Board (SWRCB) in December 2018, Resolution No. 2018-0059, to establish water quality objectives to maintain the health of the Bay-Delta ecosystem, with the stated goal of increasing salmonid populations in three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) and the Bay-Delta. The Bay-Delta Plan Amendment requires the release of 30-50 percent of the "unimpaired flow"<sup>6</sup> on the three tributaries from February through June in every year type. If the Bay-Delta Plan Amendment is implemented, the SFPUC will be able to meet the projected water demands presented in its Urban Water Management Plan (UWMP) in normal years but would experience supply shortages in single dry years or multiple dry years (refer to Section 4.17.3 for additional information on UWMPs). Based on an analysis by the Bay Area Water Supply and Conservation Agency (BAWSCA), if the Bay-Delta Plan Amendment is implemented, the proposed unimpaired flow volumes would significantly reduce the water supply available through the RWS during future drought conditions, and BAWSCA member agencies (including the Cal Water South San Francisco District) would be required to reduce their water use by as much as 50 percent during drought years.<sup>7</sup>

The SWRCB has stated that it intends to implement the Bay-Delta Plan Amendment on the Tuolumne River by the year 2022, assuming all required approvals are obtained by that time. However, implementation of the Bay-Delta Plan Amendment is uncertain for multiple reasons, as summarized below.

- First, since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed in both state and federal courts, challenging the SWRCB's adoption of the Bay-Delta Plan Amendment, including a legal challenge filed by the federal government, at the request of the U.S. Department of Interior, Bureau of Reclamation. This litigation is in the early stages and there have been no dispositive court rulings as of this date.

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<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> Unimpaired flow represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds.

<sup>7</sup> EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan – Draft, South San Francisco District California Water Service. July 2021.

- Second, the Bay-Delta Plan Amendment is not self-implementing and does not automatically allocate responsibility for meeting its new flow requirements to the SFPUC or any other water rights holders.
- Third, in recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, the SWRCB 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 SWRCB “as early as possible after December 1, 2019.” In accordance with the SWRCB’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 SWRCB. On March 26, 2019, the SFPUC adopted Resolution No. 19-0057 to support its participation in the voluntary agreement negotiation process. To date, those negotiations are ongoing under the California Natural Resources Agency and the leadership of the Newsom administration.<sup>8</sup>

Additionally, the SFPUC is pursuing numerous options to improve the supply reliability projected in its 2020 UWMP and meet its Level of Service (LOS) Goals. In particular, the SFPUC’s Water Supply Improvement Program (WSIP) and its Water Management Action Plan (Water MAP) articulate the SFPUC’s goals and objectives to improve the delivery reliability of the RWS, including water supply reliability. The WSIP includes several water supply projects. Its program goal is to improve the SFPUC’s ability to reliably meet its retail and wholesale customer water needs in non-drought and drought periods. The anticipated completion date of the overall WSIP is May 2023. As of September 2020, WSIP local projects are 100 percent complete and regional projects are 98.8 percent complete.<sup>9</sup> The SFPUC also developed a Water MAP in 2016 to provide the information necessary to begin developing a water supply program for the 2019 to 2040 planning horizon. The SFPUC intends that the Water MAP will guide its efforts to continue to meet its commitments and responsibilities to its customers, including the BAWSCA member agencies.

Through implementation of its Long-Term Water Supply Reliability Strategy, BAWSCA is also actively evaluating opportunities to increase the supply reliability of the RWS. The strategy includes short- and long-term implementation plans including water supply management projects that could be implemented to meet identified needs. Potential projects include recycled water projects, desalination projects, water transfer projects, and local capture and reuse projects.<sup>10</sup>

In addition to water supply from SFPUC, surface water and groundwater supply a small portion of water to Cal Water. From 2016 to 2020, surface water supplied an average of 537 AF, or less than 2 percent of total supplies.<sup>11</sup> Surface water is collected from the Bear Gulch Creek by two diversion facilities and is stored in Bear Gulch Reservoir prior to use.

Cal Water also uses groundwater from the Westside Basin, which underlies the project site and the Cal Water South San Francisco District service area. Cal Water operates five groundwater production wells within its South San Francisco District service area. From 2005 to 2019, the Cal Water South San Francisco District met up to 19 percent of its water demand from groundwater, excluding purchased in-lieu groundwater credits, and up to 22 percent including in-lieu

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<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

groundwater credits purchased from SFPUC. Groundwater use was reduced in 2016 and later due to in-lieu recharge.<sup>12</sup> The Basin is not adjudicated<sup>13</sup> and, in its recent evaluation of California groundwater basins, DWR determined that the Basin was not in overdraft and designated the Basin as low priority.<sup>14</sup>

**Table 4.17-1**, below, shows the water supply in Cal Water’s South San Francisco District for the most recent five years for which data are available. **Table 4.17-2, p. 4.17-6**, shows historical supplies and demand from 2016 through 2020 and projected normal year supplies and demand through 2045 for Cal Water’s Peninsula Districts. The information is from Cal Water’s 2020 UWMP for the South San Francisco District, which includes an estimated demand of 527 AFY associated with the project. As shown, Cal Water had sufficient water supplies to serve the water demand in each sector for the past five years, and Cal Water forecasts that it will continue to have adequate supplies through 2045 during normal year conditions.

**Table 4.17-1. Historical Water Supply in the Cal Water South San Francisco District**

	<b>2016 (AFY)</b>	<b>2017 (AFY)</b>	<b>2018 (AFY)</b>	<b>2019 (AFY)</b>	<b>2020 (AFY)</b>
<b>Supply by Source</b>					
Purchased Surface Water	5,296	5,308	5,322	5,332	5,379
Purchased In-Lieu Groundwater	863	1,535	1,535	1,535	1,539
Groundwater	527	0	0	0	0
Total	6,687	6,842	6,857	6,867	6,936

Source: EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

AFY = acre feet per year

<sup>12</sup> Ibid.

<sup>13</sup> Basin adjudications involve a judicial process in which a party initiates a lawsuit against all other users in a groundwater basin so that the court can determine the groundwater rights of all parties overlying the basin and whether others may export water from the basin.

<sup>14</sup> Ibid.

**Table 4.17-2. Historical and Projected Water Supplies by Source – Normal Year**

Water Supplier	Historical Supply and Demand (AFY)					Projected Supply and Demand (AFY)				
	2016	2017	2018	2019	2020	2025	2030	2035	2040	2045
<b>Historical and Projected Demand</b>										
South San Francisco District <sup>a</sup>	6,687	6,842	6,857	6,867	6,936	7,543	7,483	7,635	8,000	8,423
Mid-Peninsula District	12,534	13,601	13,924	14,046	14,563	14,418	14,530	14,786	14,977	15,279
Bear Gulch District	10,105	11,395	11,834	11,772	12,972	12,796	12,699	12,730	12,675	12,693
<b>Total Demand</b>	<b>29,326</b>	<b>31,838</b>	<b>32,614</b>	<b>32,684</b>	<b>34,471</b>	<b>34,757</b>	<b>34,712</b>	<b>35,151</b>	<b>35,652</b>	<b>36,396</b>
<b>Historical and Projected Supply (All Peninsula Districts)</b>										
Purchased (SFPUC)	27,180	29,204	30,909	30,310	32,932	32,383	32,338	32,777	33,278	34,022
Bear Gulch Reservoir	757	1,100	170	839	0	840	840	840	840	840
Groundwater	1,390	1,535	1,535	1,535	1,539	1,534	1,534	1,534	1,534	1,534
<b>Total Supply</b>	<b>29,326</b>	<b>31,838</b>	<b>32,614</b>	<b>32,684</b>	<b>34,471</b>	<b>34,757</b>	<b>34,712</b>	<b>35,151</b>	<b>35,652</b>	<b>36,396</b>
<b>Supply Minus Demand</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<sup>a</sup> Future demand estimates are from Cal Water's 2020 UWMP for the South San Francisco District (June 2021). As discussed in Section 4.17.3 below, the future demand estimates presented in the 2020 UWMP account for an estimated demand of 527 AFY associated with the project. The project's WSA (**Appendix 4.17-1**) deducts 527 AFY from the future demand estimates for the South San Francisco District under the assumption that the project would comply with Cal Water's pending Water Neutral Development Policy. However, as discussed in Section 4.17.4 below, as of the date of publish of this Draft EIR, Cal Water has not adopted a Water Neutral Development Policy. Therefore, this analysis conservatively does not deduct the project's demand from future demand estimates for the South San Francisco District.

Source: EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

AFY = acre feet per year

**Table 4.17-3, below**, shows projected single dry year supplies and demand through 2045 for Cal Water’s Peninsula Districts. The information is from Cal Water’s 2020 UWMP for the South San Francisco District, which includes an estimated demand of 527 AFY associated with the project. As shown, during single dry years, the annual supply within the three Peninsula Districts’ service areas will be reduced to 21,039 AFY by 2045. Supply shortfalls relative to total demands during single dry years are estimated to range between 34 percent in 2025 and 44 percent in 2045.

**Table 4.17-4, p. 4.17-9**, shows projected multiple dry year supplies and demand through 2045 for Cal Water’s Peninsula Districts. The information is from Cal Water’s 2020 UWMP for the South San Francisco District, which includes an estimated demand of 527 AFY associated with the project. As shown, during multiple dry years, annual supply within the three Peninsula Districts’ service areas will be reduced to 23,615 AFY in 2025 during the first year of a drought, and 20,492 AFY in 2025 in the second, third, fourth, and fifth years of drought. The 2020 UWMP for the South San Francisco District further estimates that in 2045, annual supply will be reduced to 20,954 AFY during the first three years of a drought, and 18,061 AFY in fourth and fifth years of drought. Supply shortfalls relative to total demands are estimated to range between 36 percent during the first year of a drought in 2025 to 53 percent during the fifth year of a drought in 2045.

**Table 4.17-3. Single Dry Year Water Supply and Demand**

Water Supply Source	Projected Dry Year Supply and Demand (AFY)				
	2025	2030	2035	2040	2045
<b>Total Supply (All Peninsula Districts)</b>	23,580	23,546	23,835	23,809	21,039
<b>Demand</b>					
SSF District <sup>a</sup>	7,831	7,767	7,925	8,304	8,743
Mid-Peninsula District	14,797	14,908	15,168	15,359	15,662
Bear Gulch District	13,354	13,253	13,285	13,228	13,248
<b>Total Potable Water Demand</b>	<b>35,982</b>	<b>35,928</b>	<b>36,378</b>	<b>36,891</b>	<b>37,653</b>
<b>Supply Shortfall (% demand)</b>	<b>34%</b>	<b>34%</b>	<b>34%</b>	<b>35%</b>	<b>44%</b>

<sup>a</sup> Future demand estimates are from Cal Water’s 2020 UWMP for the South San Francisco District (June 2021). As discussed in Section 4.17.3 below, the future demand estimates presented in the 2020 UWMP account for an estimated demand of 527 AFY associated with the project. The project’s WSA (Appendix 4.17-1) deducts 527 AFY from the future demand estimates for the South San Francisco District under the assumption that the project would comply with Cal Water’s pending Water Neutral Development Policy. However, as discussed in Section 4.17.4 below, as of the date of publish of this Draft EIR, Cal Water has not adopted a Water Neutral Development Policy. Therefore, this analysis conservatively does not deduct the project’s demand from future demand estimates for the South San Francisco District.

Source: EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

AFY = acre feet per year

Table 4.17-4. Multiple Dry Year Water Supply and Demand

Supply Source	Projected Water Supply and Demand During Multiple Dry Years (AFY)																								
	2025					2030					2035					2040					2045				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5
Total Supply (All Peninsula Districts)	23,615	20,492	20,492	20,492	20,492	23,483	20,383	20,383	20,383	20,383	23,647	20,313	20,313	20,313	18,849	23,762	20,594	20,594	18,424	18,424	20,954	20,954	20,954	18,061	18,061
Demand																									
SSF District <sup>a</sup>	8,009	8,009	8,009	8,009	8,009	7,943	7,943	7,943	7,943	7,943	8,104	8,104	8,104	8,104	8,104	8,492	8,492	8,492	8,492	8,492	8,940	8,940	8,940	8,940	8,940
Mid-Peninsula District	15,031	15,031	15,031	15,031	15,031	15,143	15,143	15,143	15,143	15,143	15,405	15,405	15,405	15,405	15,405	15,595	15,595	15,595	15,595	15,595	15,900	15,900	15,900	15,900	15,900
Bear Gulch District	13,699	13,699	13,699	13,699	13,699	13,595	13,595	13,595	13,595	13,595	13,629	13,629	13,629	13,629	13,629	13,570	13,570	13,570	13,570	13,570	13,591	13,591	13,591	13,591	13,591
Total Potable Water Demand	36,739	36,739	36,739	36,739	36,739	36,681	36,681	36,681	36,681	36,681	37,138	37,138	37,138	37,138	37,138	37,657	37,657	37,657	37,657	37,657	38,431	38,431	38,431	38,431	38,431
Supply Shortfall (% demand)	36%	44%	44%	44%	44%	36%	44%	44%	44%	44%	35%	45%	45%	45%	49%	37%	45%	45%	51%	51%	45%	45%	45%	53%	53%

<sup>a</sup> Future demand estimates are from Cal Water’s 2020 UWMP for the South San Francisco District (June 2021). As discussed in Section 4.17.3 below, the future demand estimates presented in the 2020 UWMP account for an estimated demand of 527 AFY associated with the project. The project’s WSA (Appendix 4.17-1) deducts 527 AFY from the future demand estimates for the South San Francisco District under the assumption that the project would comply with Cal Water’s pending Water Neutral Development Policy. However, as discussed in Section 4.17.4 below, as of the date of publish of this Draft EIR, Cal Water has not adopted a Water Neutral Development Policy. Therefore, this analysis conservatively does not deduct the project’s demand from future demand estimates for the South San Francisco District.

Source: EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

AFY = acre feet per year

### Specific Plan Area, Including Phase 1 Site

The proposed off-site improvements would not generate a demand for water service because they would consist of transportation and infrastructure improvements. Therefore, this discussion describes the existing water infrastructure that serves the Specific Plan area and the demand associated with existing uses within the Specific Plan area.

Cal Water distribution mains are located in each of the public street frontages abutting the Specific Plan area. A 6-inch cast-iron main, installed in 1943 in South Maple Avenue, Tanforan Avenue, and South Linden Avenue, provides water service to the parcels fronting Tanforan Avenue, Dollar Avenue, and South Linden Avenue, including the portion of the Phase 1 site located south of the proposed Southline Avenue. The 6-inch main is supplied by a 12-inch asbestos-cement main located in Tanforan Avenue. A 12-inch asbestos-cement main, installed in 1964 in South Maple Avenue, provides water service to the parcels fronting Maple Avenue. The existing water mains serving the Specific Plan area are shown in **Figure 4.17-1, p. 4.17-12**. There is no public recycled water infrastructure surrounding the proposed Specific Plan area. However, there is currently a coordinated effort between Cal Water and other partners to potentially develop recycled water for various uses, which is currently in the feasibility study stage.

Based on available metered data, historical water use for the existing uses within the Specific Plan area, inclusive of the Phase 1 site, was approximately 11 AFY between 2018 and 2020.<sup>15</sup>

## Wastewater

### Regional

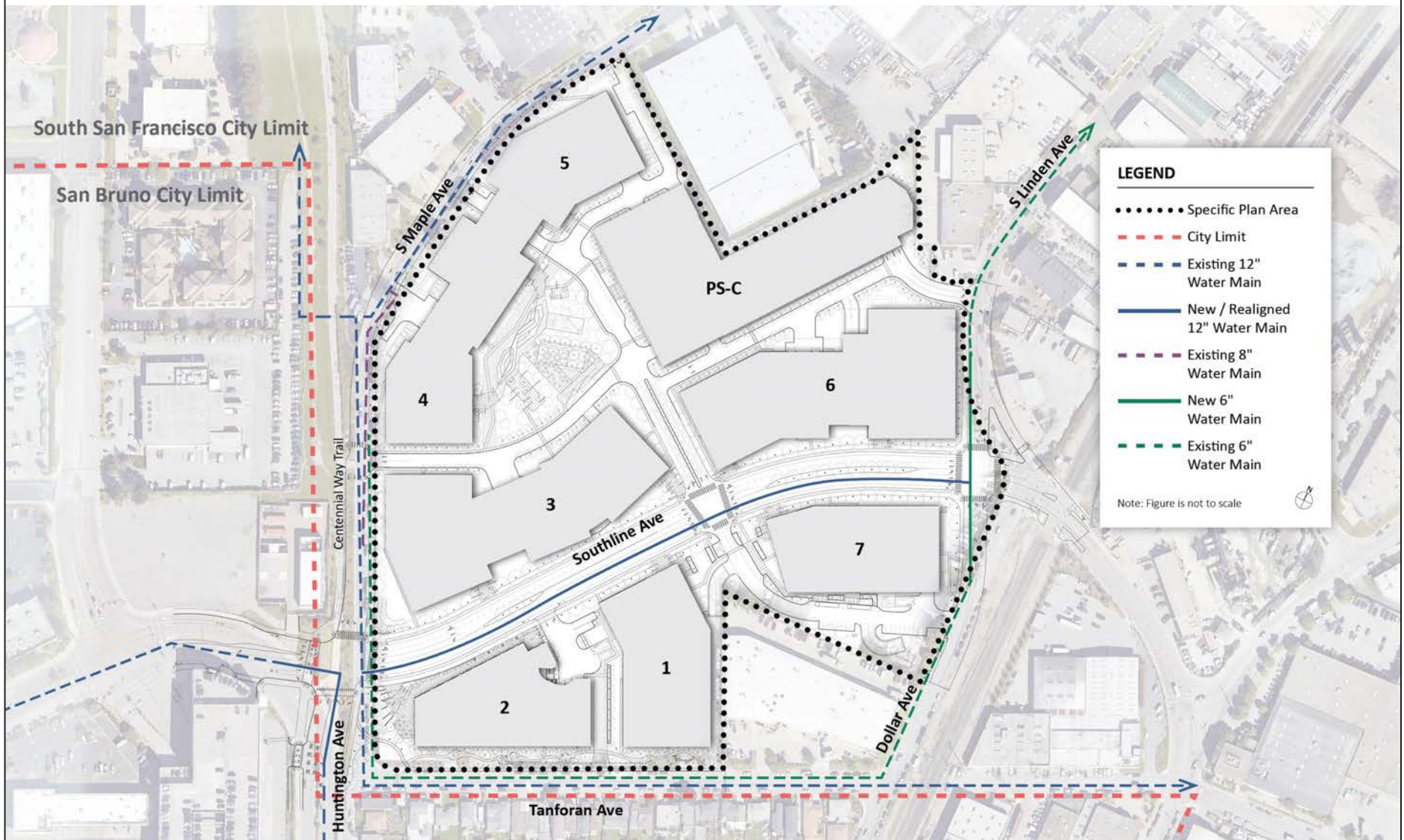
The City owns and maintains its sanitary sewer system and infrastructure within the public rights-of-way. The collected wastewater is conveyed to the South San Francisco Water Quality Control Plant (WQCP) located adjacent to San Francisco Bay on Colma Creek. This facility provides secondary wastewater treatment for the Cities of South San Francisco, San Bruno, and Colma. During dry weather conditions, the WQCP has a peak flow capacity of 13 million gallons per day (MGD) of wastewater, which is increased to a peak capacity of 62 MGD during wet weather flow conditions.<sup>16</sup> The average dry weather flow through the facility is 9 MGD, and average peak wet weather flows can exceed 60 MGD.<sup>17</sup> 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

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<sup>15</sup> EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

<sup>16</sup> Carollo Engineers. 2011. South San Francisco/San Bruno Water Quality Control Plant Facility Plan Update. April. Available: <https://www.ssf.net/home/showdocument?id=1330>. Accessed: September 25, 2020.

<sup>17</sup> BKF. 2021. Sanitary Sewer Technical Study. January.



Source: Lane Partners, Kimley-Horn & Associates, DES Architects, BKF Engineers, 2021.

conditions.<sup>18</sup> Currently, the City generates an average of approximately 8.3 MGD of daily dry-weather flow and an average daily wet-weather flow of 10.8 MGD, which is eventually conveyed to and treated at the WQCP.<sup>19</sup>

The State Water Resources Control Board (SWRCB) has adopted the Waste Discharge Requirements (WDR) Order, which requires the City of South San Francisco to develop and implement a Sanitary Sewer Management Plan (SSMP). As further described in Section 4.17.3.2, the City is currently updating its SSMP, which identifies ongoing maintenance and system improvements necessary to maintain the sewer system. Identified improvements that are relevant to the proposed project are described below.

### **Specific Plan Area, Including Phase 1 Site**

The proposed off-site improvements would not generate a demand for wastewater service because they consist of transportation and circulation improvements that do not generate wastewater. Therefore, this discussion describes the wastewater infrastructure that serves the Specific Plan area.

The existing wastewater facilities serving the Specific Plan area are shown in **Figure 4.17-2, p. 4.17-14**. The proposed Specific Plan area, including the Phase 1 site, is located in Tributary Basin B-9 within the South San Francisco West Sanitary Sewer System. Existing parcels within the Specific Plan area discharge wastewater to the public sanitary sewer mains located in the adjacent public roadways. These public mains are part of the Lowrie Trunk system and drain to Lift Station #11 on Shaw Road, which pumps the wastewater to the WQCP. The south portion of the Specific Plan area, including the portion of the Phase 1 site located south of the proposed Southline Avenue, drains to a 24-inch vitrified clay pipe main in Tanforan Avenue, identified as LO-P14 in the SSMP. The northwest portion of the Specific Plan area drains to an 8-inch vitrified clay pipe located in South Maple Avenue. This main in turn drains to an 18-inch vitrified clay pipe identified as LO-P12 and LO-P13 in the SSMP. Parcels located on the east side of the Specific Plan area drain to an 8-inch vitrified clay pipe in Linden Avenue, which also drains north to LO-P13.<sup>20</sup>

The SSMP identifies LO-P14, located within Tanforan Avenue, as a segment in need of capacity improvements, and it indicates an upsize to a 27-inch main. The next two segments downstream, LO-P15 and LO-P16, are also identified to be upsized in the SSMP. Additionally, in the SSMP, Lift Station #11 is identified as deficient and requiring capacity upgrades.<sup>21</sup>

Existing wastewater generation within the Specific Plan area, inclusive of the Phase 1 site, is estimated to range from 12,617 gallons per day (gpd) (average dry weather flow) to 17,664 (maximum day dry weather flow), with an estimated maximum day wet weather flow of 82,013 gpd.<sup>22</sup> No wastewater is generated within the off-site improvement areas.

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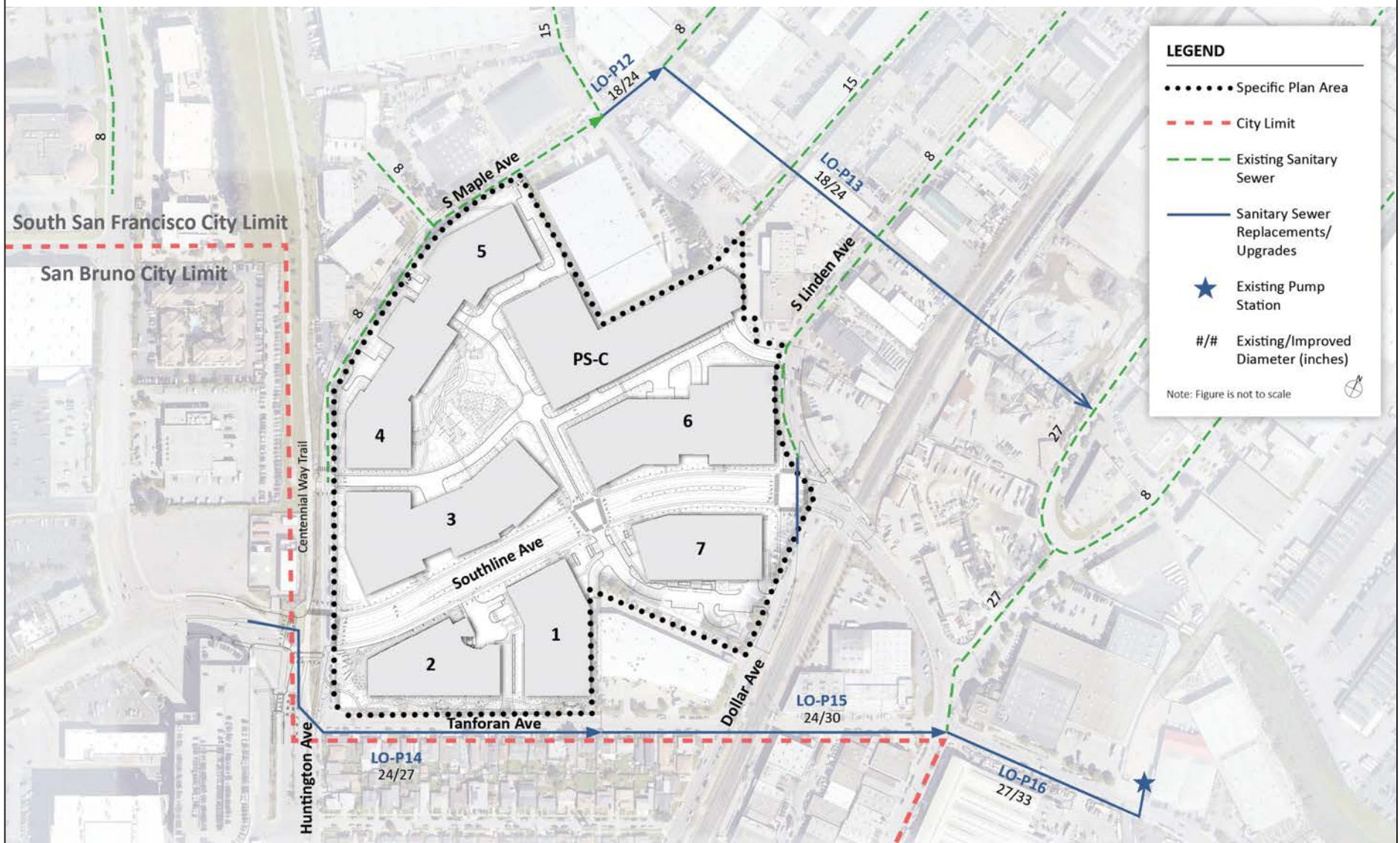
<sup>18</sup> Carollo Engineers. 2011. South San Francisco/San Bruno Water Quality Control Plant Facility Plan Update. April. Available: <https://www.ssf.net/home/showdocument?id=1330>. Accessed: September 25, 2020.

<sup>19</sup> Environmental Protection Agency. 2017. Case Study - City of South San Francisco Sewer System Asset Management Planning. January. Available: <https://19january2017snapshot.epa.gov/www3/region9/water/npdes/asset-mgmt/pdf/npdes-asset-mgmt-case-study-south-san-francisco.pdf>. Accessed: September 25, 2020.

<sup>20</sup> BKF. 2021. Sanitary Sewer Technical Study. January.

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.



Source: Lane Partners, Kimley-Horn & Associates, DES Architects, BKF Engineers, 2021.

**Figure 4.17-2**  
Existing and Proposed Wastewater Infrastructure

## Stormwater Drainage

### Regional

The City owns and maintains storm drainage infrastructure within the public rights-of-way, which then discharge to San Mateo County flood control facilities. The City is part of the Colma Creek watershed, which is approximately 16 square miles. The watershed generally drains from west to east conveying surface runoff in underground storm drains, street surfaces, gutters, and improved creek channels to eventually discharge into San Francisco Bay. The tributary watershed is divided into three main regions: Northern Region, Southern Region, and Lower Region. The Northern and Southern Regions consist of relatively steep sloped urban and residential areas located within and along the bottom of the surrounding foothills. The Lower Region is relatively flat and is largely comprised of industrial development areas. Each of the three regions is further divided into Subwatersheds A through L.<sup>23</sup> The majority of the project site is located in the Southern Region (Subwatershed B), with the exception of the off-site improvement areas in San Bruno's jurisdiction, which are located in the Lower Region (Subwatershed A).<sup>24</sup>

In 2016, the City developed a Storm Drain Master Plan to address storm drain capacity deficiencies and trash capture opportunities citywide. The goal of the Storm Drain Master Plan is to provide comprehensive long-range planning for the implementation and development of drainage facility improvements, including storm drains and trash capture devices, determine the cost of implementing such facilities, discuss funding priorities, and provide an implementation schedule of the improvements within the City.<sup>25</sup> Drainage areas outside the City, including Subwatershed A, are incorporated into the model due to their impact on drainage systems within the City. The SDMP notes that any improvements outside the City boundary should be discussed with neighboring cities. Identified improvements that are relevant to the proposed project are described below.

It is noted that the project site, including the off-site improvement areas in San Bruno's jurisdiction, is located outside of the six watershed areas that comprise San Bruno's storm drain system.<sup>26</sup>

### Project Site, Including Phase 1 Site

The proposed project would have the potential to alter stormwater flows from the Specific Plan area and the off-site improvement areas. Therefore, this discussion describes the stormwater infrastructure that services the entire project site.

The existing stormwater facilities serving the project site are shown in **Figure 4.17-3, p. 4.17-17**. As discussed above, the Specific Plan area, including the Phase 1 site, and the off-site improvement areas in South San Francisco are located within the Southern Region Watershed, Subwatershed B. The off-site improvement areas in San Bruno's jurisdiction are located within Lower Level Region Watershed, Subwatershed A. On-site storm drainage systems convey storm runoff from each parcel within the Specific Plan area to the adjacent public roadways. The southern portion of the Specific Plan area drains to a 42-inch reinforced concrete pipe located within Tanforan Avenue. The northwest portion of the Specific Plan area drains to 4-inch-by-4-inch box culvert located within South Maple Avenue. Parcels located on the east side of the project site Specific appear to mostly

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<sup>23</sup> City of South San Francisco. 2016. Storm Drain Master Plan. February. Available: <https://www.ssf.net/home/showdocument?id=16097>. Accessed: September 24, 2020.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>26</sup> City of San Bruno. 2014. Storm Drain Master Plan. June. Available: <https://www.sanbruno.ca.gov/civica/x/filebank/blobdownload.aspx?blobid=24092>. Accessed September 7, 2021.

drain north via the roadway gutter in both Dollar Avenue and South Linden Avenue, as there is no public storm drain infrastructure within these two roadways. The gutter flow along South Linden Avenue drains to a 7-inch-by-5.5-inch box culvert that crosses Linden Avenue north of the Specific Plan area. There is also one parcel on Dollar Avenue assumed to drain south to Tanforan Avenue.<sup>27</sup>

The City of South San Francisco's 2016 SDMP does not identify any recommended facility improvements for infrastructure serving the Specific Plan area within Subwatershed B. However, the Storm Drain Master Plan does recommend improvements within Tanforan Avenue to infrastructure serving the adjacent Lower Region Subwatershed A. The recommended improvements call for the future installation of a parallel 66-inch pipe in addition to the existing 42-inch reinforced concrete pipe located within Tanforan Avenue. Additional downstream segments are also identified for capacity improvements. These recommended improvements are due to anticipated demands from General Plan build-out within the Lower Region Watershed. The proposed project would be required to coordinate with the City to preserve existing space within Tanforan Avenue for the possible installation of the 66-inch pipe as part of a future capital improvement project, which, if installed, would be a separate project from the proposed project.<sup>28</sup>

## Solid Waste

### Regional

South San Francisco Scavenger Company and Blue Line Transfer Inc. provide solid waste disposal services citywide, including garbage and recycling services.<sup>29</sup> The South San Francisco Scavenger Company transports all solid waste to the Blue Line Transfer Facility at 500 E Jamie Court, where solid waste is processed, treated, and transported to other disposal facilities. The Blue Line Transfer Facility has a permitted capacity of 2,400 tons per day.<sup>30</sup> Any trash remaining after the usable materials have been separated at the transfer facility are transported to the Corinda Los Trancos (Ox Mountain) Sanitary Landfill or the Newby Island Sanitary Landfill.

As of 2015 (the most recent year for which data are available), the Ox Mountain Sanitary Landfill had a remaining capacity of approximately 22.18 million cubic yards, a maximum permitted disposal capacity of 3,598 tons per day, and is estimated to close in 2034.<sup>31</sup> As of 2014 (the most recent year for which data are available), the Newby Island Sanitary Landfill had a remaining capacity of approximately 21.2 million cubic yards, a maximum permitted disposal capacity of 4,000 tons per day, and is estimated to close in 2041.<sup>32</sup>

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<sup>27</sup> BKF. 2021. Storm Drainage Technical Study. April.

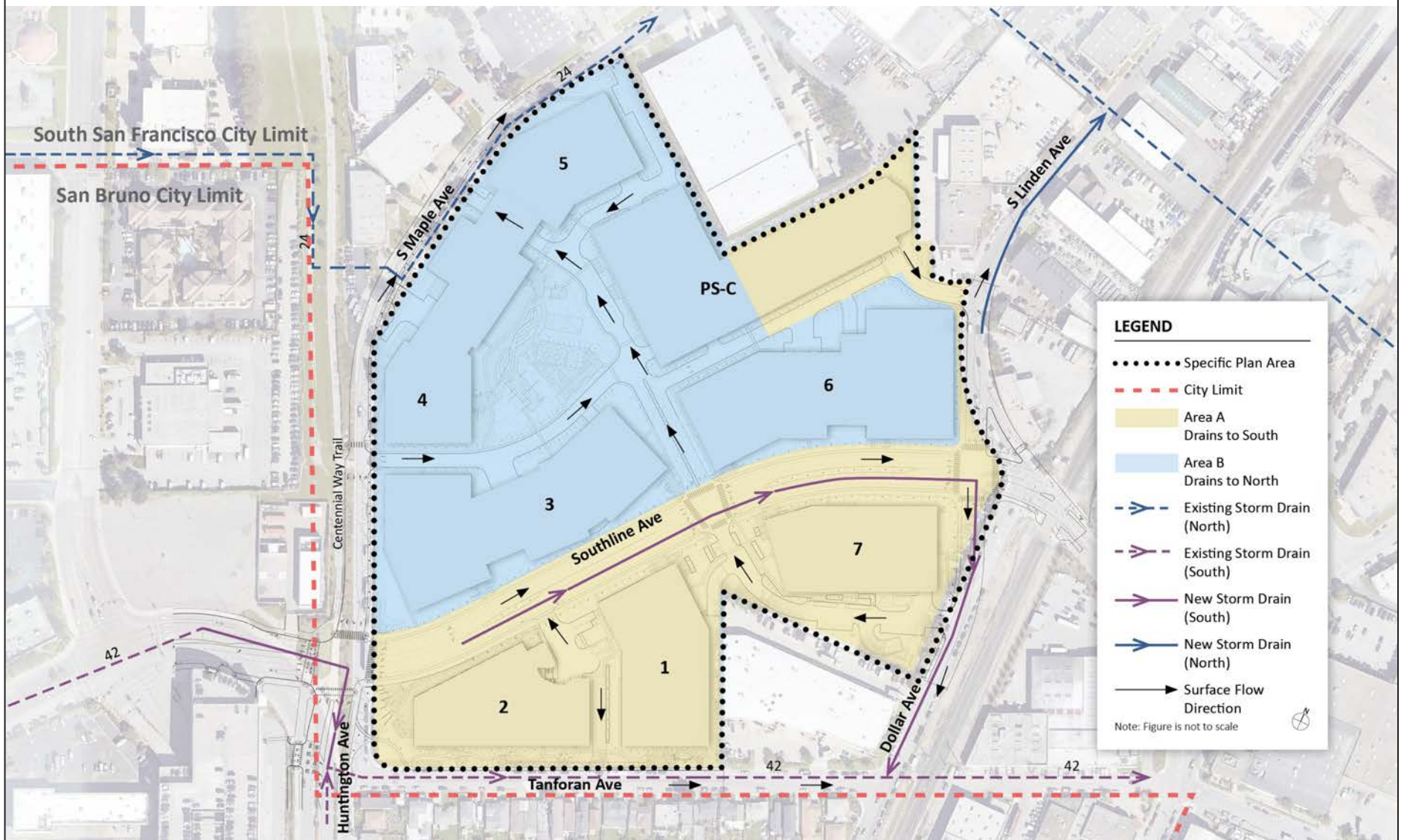
<sup>28</sup> Ibid.

<sup>29</sup> South San Francisco Scavenger Company. n.d. About Us. Available: <https://ssfscavenger.com/about-us/>. Accessed: September 24, 2020.

<sup>30</sup> California Department of Resources Recycling and Recovery. 2020. *Blue Line MRF and TS*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1598?siteID=3259>. Accessed: September 24, 2020.

<sup>31</sup> California Department of Resources Recycling and Recovery. 2020. *Corinda Los Trancos Landfill (Ox Mtn)*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223>. Accessed: September 24, 2020.

<sup>32</sup> California Department of Resources Recycling and Recovery. 2020. *Newby Island Sanitary Landfill*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1362?siteID=3388>. Accessed: September 24, 2020.



Source: Lane Partners, Kimley-Horn & Associates, DES Architects, BKF Engineers, 2021.

In 2019, the City generated 52,519 tons of solid waste, with residents generating approximately 4.3 pounds of solid waste per capita per day and employees generating 5 pounds of solid waste per capita per day.<sup>33</sup> CalRecycle's 2019 disposal goals for the City were 6.9 pounds per day for residents and 9.0 pounds per day for employees; therefore, the City met its per capita disposal goals for residents and employees in 2019.<sup>34</sup> 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.

### **Specific Plan Area, Including Phase 1 Site**

The proposed off-site improvements would not generate a demand for solid waste service. Therefore, this discussion describes the existing solid waste generated within the proposed Specific Plan area.

As described above, South San Francisco Scavenger Company and Blue Line Transfer Inc. provides solid waste disposal services to the Specific Plan area, including the Phase 1 site. The South San Francisco Scavenger Company transports all solid waste to the Blue Line Transfer Facility at 500 E Jamie Court, where solid waste is processed, treated, and transported to other disposal facilities. Based on a rate of 5 pounds per employee per day provided by CalRecycle, and an existing employment of 455 employees, existing uses within the Specific Plan area are estimated to generate approximately 2,275 pounds per day of solid waste.<sup>35</sup>

## **Electricity, Natural Gas, and Telecommunication Services**

### **Regional**

PG&E provides both electric and natural gas services to the City.<sup>36</sup> PG&E is a California Public Utilities Commission-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, including substations.

In the City, 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. For more information regarding energy use in the City and the Specific Plan area, inclusive of the Phase 1 site, refer to Section 4.5, *Energy*, of this EIR.

The City is also served by both wired and wireless telecommunications providers. Comcast and AT&T provide the City with wired telecommunications services.<sup>37</sup> Mobile cellular service, including mobile data, is provided by major carriers including Verizon Wireless, T-Mobile, Sprint, and AT&T.

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<sup>33</sup> California Department of Resources Recycling and Recovery. 2019. Disposal Rate Calculator – South San Francisco. Available: <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator>. Accessed: September 24, 2020.

<sup>34</sup> Ibid.

<sup>35</sup> California Department of Resources Recycling and Recovery. 2019. Disposal Rate Calculator – South San Francisco. Available: <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator>. Accessed: September 24, 2020.

<sup>36</sup> Power Systems Design. 2021. PG&E Electric/Dry Utility Planning Study. April.

<sup>37</sup> Ibid.

### **Specific Plan Area, Including Phase 1 Site**

The proposed off-site improvements would not generate a demand for electricity, natural gas, or telecommunication services. Therefore, this discussion describes the electricity, natural gas, and telecommunications infrastructure that serves the Specific Plan area.

The project site is served by existing PG&E electric lines. The East Grand Substation serves the project site, which has 115-kilovolt (kV) overhead feeds and is equipped with four, three-phase 115/12kV transformer banks. Local electric distribution utilities around the project site consist of 600A and 200A 12kV underground and overhead distribution lines and secondary systems of below 600V. Specifically within project site are PG&E 12kV overhead and underground radial distribution and secondary service systems. Along South Maple Avenue, Tanforan Avenue, and Dollar Avenue, overhead 12kV distribution facilities are present.<sup>38</sup>

Natural gas is also currently provided by PG&E. Telecommunication services are provided by Comcast and AT&T. Public gas distribution mains are located within the public roadways adjacent to the Specific Plan area. There is a 16-inch gas main within South Maple Avenue, and a 4-inch gas main within Tanforan, Dollar, and South Linden Avenues. Telecommunication lines are located both overhead and belowground in the adjacent public rights-of-way.

As shown in Table 4.5-3 in Section 4.5, *Energy*, of this EIR, the existing uses within the Specific Plan area, inclusive of the Phase 1 site, consume an estimated 1,606,732 kilowatt-hours of electricity and 59,934 therms of natural gas annually.

## **4.17.3 Regulatory Framework**

This section provides a summary of the utilities and service systems plans and policies of state, regional, and local agencies that have policy and regulatory control over the project site.

### **4.17.3.1 State and Regional**

#### **Senate Bill 610 and Southline Specific Plan Water Supply Assessment**

Senate Bill (SB) 610 requires cities and counties to confirm through a WSA that sufficient water supply sources are available before certain large developments are approved (see California Water Code Sections 10910 through 10915). The WSA for a project must be included in that project's CEQA documentation. A WSA must be prepared if a project includes, among other things: (1) the equivalent demand of 500 residential units; or (2) a shopping center or business establishment that employs more than 1,000 persons or has a floor space of more than 500,000 square feet; or (3) a commercial office building that employs more than 1,000 persons or has a floor space of more than 250,000 square feet. The proposed project would result in a maximum of approximately 10,745 net new employees at the project site under the Office Scenario and would include an office/research and development (R&D) campus with a maximum anticipated building area of 2.8 million square feet, which would be greater than the 1,000 persons or 250,000 square feet of floor space associated with a business establishment or commercial office building use under SB 610. Therefore, the proposed project meets the definition of a "project" requiring a WSA pursuant to SB 610 (California Water Code Section 10910(a) and 10912(a)(3)).

California Water Code Section 10910(g)(1) provides that the governing body of the public water system shall submit a WSA to the requesting city or county not later than 90 days from the date on

<sup>38</sup> Power Systems Design. 2021. PG&E Electric/Dry Utility Planning Study. April.

which the request was received. Pursuant to California Water Code Section 10910(c)(1), the City requested a WSA for the proposed project from Cal Water in April 2020. Cal Water provided a draft WSA to the City and project applicant in September 2020 and a revised draft WSA in December 2020. In March 2021, Cal Water informed the City and project applicant that Cal Water would be revising the WSA again to include updated language regarding the reliability of wholesale water supplies and provided another draft WSA to the City and project applicant in July 2021. This Draft EIR analysis is based on the July 2021 WSA, which is included in **Appendix 4.17-1**. Notwithstanding the passage of the statutory 90-day period to complete a WSA, Cal Water has stated that it intends to finalize the WSA following preparation of a Water Neutral Development Policy for the South San Francisco District, which is anticipated to occur by the end of 2021.<sup>39</sup> The final WSA is anticipated to be included in the Final EIR, together with a Water Neutral Development Policy, if it has been adopted, as an Appendix B. Based on information provided by Cal Water, the final WSA conclusions are anticipated to remain consistent as stated in the July 2021 WSA.

The WSA describes the Water Neutral Development Policy based on what Cal Water anticipates will be included in the policy and assumes that the project will be required to comply with a final adopted policy.<sup>40</sup> According to the WSA:

The Water Neutral Development Policy [will require] any new residential, commercial, or industrial development within the South San Francisco District that is expected to use 100 AFY or more in new demand to offset its net increase in water demand. The net increase in water demand associated with any new development [will be] calculated as the expected total water use due to the proposed development and/or expansion, minus the amount of existing water use, onsite credits (if available), and/or alternative sources of water supply. Alternative sources may include, but are not limited to: (1) reused graywater, (2) reused blackwater, (3) reused mixed gray/blackwater, (4) captured rainwater/stormwater, and (5) air conditioning condensate.

The offset amount [will be] determined using a detailed projection of total annual water demand resulting from the proposed development, excluding temporary demands such as those required for landscape establishment. The applicant may choose to comply with the defined offset amount by any combination of the following activities: (1) paying to the South San Francisco District the required offset amount calculated according to the offset costs table included in the policy, (2) conducting offsite conservation activities, or (3) conducting other pre-approved demand offset projects. ... Cal Water will verify compliance with this Water Neutral Development Policy (i.e., ensure that all payments for offsets and/or conservation offset measures are completed) prior to establishing a water service connection.

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<sup>39</sup> Personal communication with Michael Hurley, Water Resources Manager, Cal Water, August 6, 2021.

<sup>40</sup> Page 11 of the WSA (**Appendix 4.17-1**) states: "In July 2021, prior to the date of publish of this WSA, Cal Water adopted a Water Neutral Development Policy (or Policy) for its three Peninsula Districts, which share the same SFPUC supply allocation. A copy of this Policy is provided in Appendix B." However, as of the date of publish of this Draft EIR, Cal Water has not adopted a Water Neutral Development Policy, and the policy is not included in Appendix B of the July 2021 draft WSA.

## **Assembly Bill 939 and Senate Bill 1016**

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of all solid waste (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. In 2006, SB 1016 updated the requirements. The new per capita disposal and goal measurement system moves the emphasis from an estimated diversion measurement number to an actual disposal measurement number, along with an evaluation of program implementation efforts. These two factors will help determine each jurisdiction's progress toward achieving AB 939 diversion goals. The 50 percent diversion requirement is now measured in terms of per capita disposal, expressed as pounds per day. Under the SB 1016 measurement system, a city is required to annually dispose of an amount equal to or less than its "50 percent equivalent per capita disposal target," as calculated by CalRecycle.

## **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. AB 1826 defines organic waste as food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Solid waste is defined as the total of trash, recycling, and organics. 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 or 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.

In September 2020, CalRecycle reduced the threshold to 2 cubic yards of solid waste generated by covered businesses.

## **Title 14, CalRecycle**

CCR Title 14, Division 7, contains CalRecycle regulations pertaining to all nonhazardous waste management in California. It contains regulations regarding the minimum standards for solid waste handling and disposal, standards for handling and disposal of asbestos containing waste, special waste standards, enforcement of standards, commercial recycling, and solid waste cleanup programs, among other topics.

## **Title 24, California Green Building Standards (CALGreen)**

In accordance with CCR Title 24, part 6 (last amended in 2019, effective January 1, 2020), buildings constructed after June 30, 1977, must comply with the standards identified in CCR Title 24. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. Title 24 requires the inclusion of state-of-the-art energy conservation features in building designs and construction,

such as specific energy-conserving design features and non-depletable energy resources. In addition, it must be demonstrated that a building would comply with a designated energy budget. Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). Unless otherwise noted in a regulation, all newly constructed buildings in California are subject to the requirements of the CALGreen Code.

### **Sustainable Groundwater Management Act**

Refer to Section 4.9, *Hydrology and Water Quality*, of this EIR, for a discussion of the Sustainable Groundwater Management Act of 2014.

### **Urban Water Management Planning Act**

The Urban Water Management Planning Act (UWMP Act) requires every public and private urban water supplier that directly or indirectly provides water for municipal purposes to prepare and adopt a UWMP. This plan is required to be updated every five years, in years ending with “0” or “5.” The UWMP must include a description of the reliability of the water supply and vulnerability to seasonal or climatic shortage (to the extent practicable) and provide data for average, single-dry, and multiple-dry water years as well as an urban water shortage contingency analysis.

The UWMP Act was enacted in 1983. Over the years it has been amended in response to water resource challenges and planning imperatives confronting California. A significant amendment was made in 2009 as a result of the governor’s call for a statewide 20 percent reduction in urban water use by 2020, referred to alternately as “20x2020,” the Water Conservation Act of 2009, or “SB X7-7.” This amendment required urban retail water suppliers to establish water use targets for 2015 and 2020 that would result in statewide water savings of 20 percent by 2020. Beginning in 2016, urban retail water suppliers were required to comply with the water conservation requirements in SB X7-7 in order to be eligible for state water grants or loans.

A subsequent substantial revision to the UWMP Act was made in 2018 through Assembly Bill 1668 and Senate Bill 606, referred to as “Making Water Conservation a California Way of Life” or the “2018 Water Conservation Legislation.” These changes include, among other things, additional requirements for Water Shortage Contingency Plans (WSCPs), expansion of dry year supply reliability assessments to a five-year drought period, establishment of annual drought risk assessment procedures and reporting, and new conservation targets referred to as “annual water use objectives,” which will require retailers to continue to reduce water use beyond the 2020 SB X7-7 targets. The UWMP Act contains numerous other requirements that an UWMP must satisfy.

### **2020 Urban Water Management Plan and Water Shortage Contingency Plan for the South San Francisco District**

Cal Water adopted its 2020 UWMP for the South San Francisco District on June 20, 2021. The 2020 UWMP provides information about the South San Francisco District’s historical and projected water demands, water supplies, supply reliability and vulnerability, water shortage contingency planning, and demand management programs. The 2020 UWMP is used as a long-range planning document by Cal Water for water supply and system planning. The future demand estimates presented in the 2020 UWMP include an estimated demand of 527 AFY for the project.<sup>41</sup>

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<sup>41</sup> EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

Based on the 2020 UWMP analysis, the District's supply is expected to be sufficient to meet demands in normal year conditions. However, the District is expected to experience significant shortfalls during single dry and multiple dry year conditions as a result of the potential Bay-Delta Plan Amendment implementation (refer to **Table 4.17-3, p. 4.17-7**, and **Table 4.17-4, p. 4.17-9**). As discussed in Section 4.17.2, at this time, numerous uncertainties remain in the implementation of the Bay-Delta Amendment and the resultant allocation of the available supply to the South San Francisco District and the other SFPUC wholesale customers.

The 2020 UWMP includes a WSCP for the South San Francisco District, which was prepared in accordance with the UWMP Act, as amended and is included in Appendix L of the 2020 UWMP. According to the 2020 UWMP, the WSCP sufficiently addresses the potential water shortage conditions that have been identified under the UWMP during single -and multiple-dry year conditions. The WSCP is also independently reflected in Cal Water rules approved by the California Public Utilities Commission (CPUC) (Rule 14.1 and Schedule 14.1).<sup>42,43</sup> The WSCP serves as a standalone, self-enforcing document that is engaged in the case of a water shortage event, such as a drought or supply interruption, and defines specific policies and actions that will be implemented at various shortage level scenarios. The primary objective of the WSCP is to ensure that the South San Francisco District has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. As required by California Water Code Section 10632, the WSCP includes six levels to address shortage conditions ranging from up to 10 percent to greater than 50 percent shortage, identifies a suite of demand mitigation measures for the South San Francisco District to implement at each level, and identifies procedures for the South San Francisco District to annually assess whether or not a water shortage is likely to occur in the coming year, among other things. Examples of demand mitigation measures include:

- Stage 1:
  - Limit landscape irrigation to specific times
  - Prohibit use of potable water for washing hard surfaces
- Stage 2:
  - Prohibit the use of single pass cooling systems in new connections
  - Limit landscape irrigation to 1-3 days per week
- Stage 3:
  - Prohibit irrigation of ornamental turf on public street medians with potable water
  - Prohibit use of potable water for construction and dust control
- Stage 4:
  - Prohibit vehicle washing except with recirculated water or low-volume systems

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<sup>42</sup> California Water Service Company, Rule 14.1, Non-Essential, Wasteful Uses of Potable Water. Approved July 14, 2021. Available: [https://www.calwater.com/docs/rates/rules/rule\\_14.1.pdf](https://www.calwater.com/docs/rates/rules/rule_14.1.pdf). Accessed September 14, 2021.

<sup>43</sup> California Water Service Company, Schedule 14.1, Water Shortage Contingency Plan with Staged Mandatory Reductions and Drought Surcharges. Approved July 14, 2021. Available: [https://www.calwater.com/docs/rates/rates\\_tariffs/all/20210714-Schedule\\_14.1\\_Water\\_Shortage\\_Contingency\\_Plan.pdf](https://www.calwater.com/docs/rates/rates_tariffs/all/20210714-Schedule_14.1_Water_Shortage_Contingency_Plan.pdf). Accessed September 14, 2021.

- Prohibit use of water for recreational purposes such as water parks and the filling of pools
- Stage 5:
  - Require net zero demand increase on new water service connections
- Stage 6:
  - Place a moratorium on new water service connections
  - Prohibit all landscape irrigation

## NPDES Permits

Refer to Section 4.9, *Hydrology and Water Quality*, of this EIR, for a discussion of the NPDES permit applicable to the proposed project.

## San Mateo Countywide Stormwater Pollution Prevention Program

The City 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. The Program ensures that participating jurisdictions manage stormwater runoff flows such that contaminated water runoff and discharge into water bodies 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 administers stormwater quality protection through the Municipal Regional Stormwater Permit (MRP) which is issued under NPDES and by RWQCB through this program.

### 4.17.3.2 Local

#### South San Francisco General Plan

The 1999 General Plan provides a vision for long-range physical and economic development of the City, provides strategies and specific implementing actions, and establishes a basis for judging whether specific development proposals and public projects are consistent with the City's plans and policy standards. The General Plan contains a Parks, Public Facilities, and Services Element, which outlines policies relating to parks and recreation, educational facilities, and public facilities. The General Plan also contains a Health and Safety Element, which acknowledges the importance of reducing solid waste. The General Plan includes the following policies applicable to utilities and service systems:

- Policy 5.3-G-1: Promote the orderly and efficient operation and expansion of the water supply system to meet projected needs.
- Policy 5.3-G-2: Encourage water conservation measures for both existing and proposed development.
- Policy 5.3-G-3: Promote the equitable sharing of the costs associated with providing water service to new development.

- Policy 5.3-I-2: Establish guidelines and standards for water conservation and actively promote the use of water-conserving devices and practices in both new construction and major alterations and additions to existing buildings.
- Policy 5.3-I-3: Ensure that future residents and businesses equitably share costs associated with providing water service to new development in South San Francisco.
- Policy 5.3-G-4: Promote the orderly and efficient operation and expansion of the wastewater system to meet projected needs.
- Policy 5.3-G-5: Promote the equitable sharing of the costs associated with providing wastewater service to new development.
- Policy 5.3-G-6: Maintain environmentally appropriate wastewater management practices.
- Policy 5.3-I-5: Ensure that future residents and businesses equitably share costs associated with providing wastewater service to new development in South San Francisco.
- Policy 8.3-G-1: Reduce the generation of solid waste, including hazardous waste, and recycle those materials that are used to slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989.
- Policy 8.3-I-1: Continue to work toward reducing solid waste, increasing recycling, and complying with the San Mateo County Integrated Waste Management Plan.

### South San Francisco Climate Action Plan

The City's Climate Action Plan (CAP)<sup>44</sup>, adopted in 2014 and discussed in greater detail in Section 4.7, *Greenhouse Gas Emissions*, of this EIR includes goals, policies, and strategies to reduce the city's greenhouse gas (GHG) emissions, in compliance with AB 32 and SB 375.

The CAP provides guidance for a scientific and regulatory framework, a GHG emissions inventory, a GHG reduction strategy, adaptation and resiliency, and implementation. The CAP incorporates several policies regarding water usage and diversion of solid waste, including the policies listed below.

- Measure 5.1: Develop a waste reduction strategy to increase recycling and reuse of materials to achieve a 75% diversion of landfilled waste by 2020.
  - Continue to enforce the existing construction and demolition recycling ordinance, requiring 100% of inert waste and 65% of non-inert waste to be recycled from all eligible projects.
- Measure 6.1: Reduce water demand. Revitalize implementation and enforcement of the Water Efficient Landscape Ordinance by undertaking the following:
  - Establishing a variable-speed pump exchange for water features.
  - Limiting turf area in commercial and large multi-family projects.
  - Restricting hours of irrigation to occur between 3:00 a.m. and two hours after sunrise.
  - Installing irrigation controllers with rain sensors.
  - Landscaping with native, water-efficient plants.
  - Installing drip irrigation systems.

<sup>44</sup> City of South San Francisco. 2014. City of South San Francisco Climate Action Plan. Prepared by PMC. Available: at <https://www.ssf.net/home/showdocument?id=5640>. Accessed: September 21, 2020.

- Reducing impervious surfaces.
- Measure 6.2: Provide alternative water resources for irrigation.
  - Create water policies for the stormwater management strategy that seek to capture storm runoff (e.g., bioswale, rainwater collection, and irrigation programs).
  - Continue to implement the City's Water Efficient Landscape Guidelines.

The CAP includes a Development Checklist for City staff to use to identify applicable CAP measures for discretionary projects and required mitigation standards. The Development Checklist serves as the summary of project-level standards from the CAP. Criteria applicable to utilities and service systems include, but are not limited to, the following questions:

- Will certification of the building be sought under Leadership in Energy and Environmental Design (LEED) or other green building criteria?
- Will any water features exceed CALGreen standards?
- Will the project incorporate low-impact development practices?
- Will any xeriscaping be installed?
- Will captured rainwater or graywater be used for irrigation?

### **South San Francisco Sanitary Sewer Master Plan**

The State Water Resources Control Board (SWRCB) has adopted a Waste Discharge Requirements (WDR) Order which requires the City to develop and implement a Sanitary Sewer Management Plan (SSMP). The latest City SSMP was adopted in June 2014 and identifies ongoing maintenance and system improvements necessary to maintain the sewer system. The City issued an updated Preliminary Draft Sanitary Sewer Master Plan in February 2020. The City anticipates that the final updated SSMP will be substantially consistent with the 2020 draft SSMP. As such, the 2020 draft SSMP was used as the basis for wastewater infrastructure capacity design for the Specific Plan area.

### **South San Francisco Green Infrastructure Plan**

Refer to Section 4.9, *Hydrology and Water Quality*, of this EIR for a discussion of the City's Green Infrastructure Plan prepared pursuant to the MRP.

### **South San Francisco Storm Drain Master Plan**

Refer to Section 4.9, *Hydrology and Water Quality*, of this EIR for a discussion of the City's Storm Drain Master Plan (SDMP).

### **City of South San Francisco Sewer Capacity Charge**

The Sewer Capacity Charge established in Resolution 56-2017<sup>45</sup> is a "capacity charge," as defined in Government Code, § 66013(b)(3), the purpose of which is to finance the replacement and renewal of existing sanitary sewer facilities and the upgrade and construction of new sanitary sewer facilities to reduce impacts caused by future development and redevelopment in the City. The Sewer Capacity Charge does not exceed the estimated reasonable cost of providing the service for which the charge is imposed because the charge imposes a proportional share of City's total sewer system investment,

<sup>45</sup> City of South San Francisco. 2017. City Council Resolution: RES 56-2017.

including specified future capital improvement projects, on new development requesting a connection to the sewer system, and redevelopment resulting in an increase in the use of the sewer system.

### **City of South San Francisco Municipal Code**

The South San Francisco Municipal Code, Chapter 14, *Water and Sewage*, establishes regulations including, but not limited to, stormwater management and control, water quality control, sewer rates, sewer lateral construction, maintenance and inspection, and associated impact fees for use of the City's water and sewage utilities. Specifically, Section 14.04, *Stormwater Management and Discharge Control*, is intended to protect and enhance the water quality of the City's watercourses, water bodies, and wetlands in a manner that is pursuant to and consistent with the Clean Water Act. The purpose of this section is to eliminate non-stormwater discharges to the separate municipal storm sewer, control the discharge to the separate municipal storm sewers from spills, dumping or disposal of materials other than stormwater, and reduce the pollutants in stormwater discharges to the maximum extent practicable. Section 14.04.320, *Coordination with hazardous materials inventory and response program*, includes prohibitions on non-stormwater discharges and illicit discharges, and the requirement to reduce stormwater pollutants to the maximum extent practicable.

Chapter 14.08, *Water Quality Control*, establishes uniform requirements for direct and indirect contributors into the publicly owned treatment works for the City and enables the City to comply with all applicable state of California laws (Water Code Section 1300 et seq.) and federal laws required by the Clean Water Act of 1977 (33 U.S.C. Section 1251 et seq.) and the General Pretreatment Regulations (40 CFR, Part 403). Specifically, Section 14.08.170, *Reporting and Recordkeeping Requirements for Permittee*, requires a variety of reporting and recordkeeping, such as discharge reports, baseline monitoring reports, and periodic compliance reports. Section 14.08.210, *General discharge regulations*, establishes discharge regulations into public sanitary sewers.

Chapter 8.16, *Solid Waste—Scavenger Services*, aims to prevent accumulation of quantities of solid waste on all lands and premises within the boundaries of the city, except for dump sites approved by the City Council, in order that the public health and welfare of the inhabitants of the city and surrounding communities may be protected and preserved through strict regulation and supervision of all phases of accumulation, collection and disposal of solid waste within the City. In addition, the City Municipal Code, Section 15.60, *Recycling and Diversion of Debris from Construction and Demolition*, establishes regulations for recycling and the diversion of debris generated from construction and demolition. Specifically, the code details diversion requirements, such as submitting and completing a waste management plan, directing 100 percent of building materials to reuse or recycling facilities approved by the City, and either recycling all mixed debris to recycling facilities or separating/directing non-building materials to recycling facilities at a diversion rate of 65 percent.

Lastly, the City's Water Efficient Landscape Ordinance, which amended Section 20.300.007 of the City's zoning code, incorporates the provisions and standards of the State of California model water efficient landscape ordinance to ensure that the requirements within this code are at least as effective in conserving water as the model water efficient landscape ordinance.

### **San Bruno Plans and Policies**

As further described in Chapter 3, *Project Description*, of this EIR, the project proposes certain circulation and infrastructure improvements that are located within San Bruno but would not

develop any new structures or new land uses in San Bruno. The specific off-site improvements located within San Bruno include: constructing a new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue; improving Huntington Avenue from Southline Avenue south to the existing BART garage intersection located west of Pacific Avenue; converting Tanforan Avenue to a cul-de-sac adjacent to Huntington Avenue; and realigning the existing storm drain main within Huntington Avenue to conform to the proposed intersection improvements at Huntington Avenue/Southline Avenue. This section identifies and evaluates the proposed project's consistency with relevant policies from the San Bruno General Plan and the San Bruno Green Infrastructure Plan related to utilities and service systems. For additional discussion of the proposed project's consistency with San Bruno land use plans and policies, refer to Section 4.10, *Land Use and Planning*, and Section 4.15, *Transportation and Circulation*.

### **San Bruno General Plan**

The City of San Bruno 2009 General Plan outlines a vision for the long-range physical and economic development of the community through 2025. The General Plan includes the following policies applicable to utilities and service systems proposed in San Bruno:

- PSF-D: Ensure that the City of San Bruno's wastewater collection and treatment systems are adequate to serve the city's present and anticipated needs, are safe, and are environmentally sound.
- PFS-20: Require expansion of the City of San Bruno's sewer collection system proportionate with new development's fair share of demand.
- PFS-21: Upgrade or replace sewer lines to accommodate anticipated flows and to prevent overflows. Upgrade sewer lift stations as needed.
- PFS-73: Provide for utility access and prevent easement encroachments that might impair the safe and reliable maintenance and operation of utility facilities.

### **San Bruno Green Infrastructure Plan**

The City of San Bruno Green Infrastructure Plan, approved in August 2019, guides sustainable development in the city of San Bruno, with a focus on converting San Bruno'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. Near the project site, the Green Infrastructure Plan would implement a component of the San Bruno Walk 'n Ride Plan's Huntington Cycle Track project. Specifically, the Green Infrastructure Plan will improve the pedestrian and bicycle network on Huntington Avenue from San Bruno Avenue to the entrance of the Centennial Way Trail. Project improvements include converting the rightmost lane on northbound Huntington Avenue to a two-way cycle track with a concrete barrier and installation of streetscape improvements such as pedestrian scale lighting. The proposed project's off-site improvement of the new intersection and Huntington Avenue would be located near the Green Infrastructure Plan's implementation of the Huntington Cycle Track terminus at the Centennial Way Trail.

### **San Bruno Sewer System Management Plan**

The San Bruno Sewer System Management Plan is a comprehensive planning document that describes the policies and procedures required to maintain compliant sewer services Citywide. These policies help fulfill RWQCB water quality and sewer management requirements and prevent sanitary sewer overflows and maintain water quality. Generally, goals and policies described in the Sewer System 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. The Sewer System Management Plan includes a 20-year capacity improvements plan to address significant structural and maintenance issues and aging infrastructure and pump station upgrades necessary to meet the current and future improvement needs. No sewer improvement projects are identified in the vicinity of the project site.<sup>46</sup>

### **San Bruno Storm Drain Master Plan**

The City of San Bruno Storm Drain Master Plan guides storm drain infrastructure planning for San Bruno's storm drain system, helping to reduce overall storm drain runoff and localized flooding risks, with special consideration for site topography, drainage patterns, and system capacity limitations. The City's storm drain system is comprised of six main watersheds, which do not include the project site.

## **4.17.4 Impacts and Mitigation Measures**

This section describes the impact analysis related to utilities and service systems for the proposed project, including Phase 1. It describes the methods and thresholds used to determine whether an impact would be significant. Feasible measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, when necessary.

### **4.17.4.1 Significance Criteria**

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant utilities and service systems impact if it would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects;
2. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected wastewater treatment demand in addition to the provider's existing commitments;
4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

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<sup>46</sup> City of San Bruno. 2019. Sewer System Management Plan, Table VIII-1, p. 86. Available: <https://www.sanbruno.ca.gov/civicax/filebank/blobdload.aspx?t=69857.4&BlobID=31253>. Accessed: September 7, 2021.

5. Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Thresholds 4 and 5 related to solid waste are addressed together under Impact UTIL-4.

#### 4.17.4.2 Approach to Analysis

Utilities and service systems impacts associated with construction and operation of the proposed project were assessed and quantified, where applicable, using standard and accepted software tools and techniques as described in the technical report appendices that form the basis of this analysis. The utilities and service systems impact analysis considers whether proposed project implementation would result in substantial impacts to utilities systems due to either construction or operation of the proposed project. 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. Impacts to off-site improvements in San Bruno are evaluated using this same methodology.

Potential project-related impacts on utilities and service systems were evaluated based on existing capacity and demand data identified in the WSA (**Appendix 4.17-1**),<sup>47</sup> 2020 UWMP for the South San Francisco District, Water Infrastructure Technical Study (**Appendix 4.17-2**),<sup>48</sup> Sanitary Sewer Technical Study (**Appendix 4.17-3**),<sup>49</sup> Storm Drainage Technical Study (**Appendix 4.9-1**),<sup>50</sup> PG&E Electric/Dry Utility Planning Study (**Appendix 4.17-4**),<sup>51</sup> as well as from site plans and publicly available sources.

#### Buildout Scenario Studied (Office Scenario and Life Sciences Scenario)

As discussed in Section 3.6.2.2 in Chapter 3, *Project Description*, of this EIR, the Specific Plan would allow for development of the commercial campus as either office or research-and-development (R&D) uses, or a combination of both, up to a total buildout of 2,800,000 square feet. For the purposes of program-level EIR analysis, two projected buildout scenarios were identified which would represent the reasonably foreseeable range of development expected to occur under the Specific Plan: the Office Scenario and the Life Sciences Scenario. Each section within Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR analyses the buildout scenario that represents the “worst-case” scenario for the resources area being analyzed. The “worst-case” buildout scenario is the scenario with the greatest potential to result in significant impacts.

This section analyzes the buildout scenario which represents the “worst-case” scenario for each individual utility type (i.e., water demand, wastewater, stormwater, solid waste, and dry utilities). The “worst-case” buildout scenario is the scenario with the greatest potential to result in significant impacts, or, in the case of utilities and service systems, the buildout scenario that generates the greatest demand. The buildout scenarios selected for evaluation for each utility are as follows:

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<sup>47</sup> EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

<sup>48</sup> BKF. 2020. Water Infrastructure Technical Study. December.

<sup>49</sup> BKF. 2021. Sanitary Sewer Technical Study. January.

<sup>50</sup> BKF. 2021. Storm Drainage Technical Study. April.

<sup>51</sup> Power Systems Design. 2021. PG&E Electric/Dry Utility Planning Study. April.

- **Water:** As demonstrated in the WSA and the Water Infrastructure Technical Study, the Life Sciences Scenario would generate a greater demand for water than the Office Scenario. Therefore, the analysis of water impacts is based on the Life Sciences Scenario.<sup>52, 53</sup>
- **Wastewater:** As demonstrated in the Sanitary Sewer Technical Study, the Office Scenario would generate a greater demand for wastewater than the Life Sciences Scenario, resulting in higher wastewater volume.<sup>54</sup> Therefore, the analysis of wastewater impacts is based on the Office Scenario.<sup>55</sup>
- **Stormwater:** As discussed in Section 4.9, *Hydrology and Water Quality*, of this EIR, while the two potential buildout scenarios are similar in building footprint and lot coverage, when considering both building and hardscape coverage, the Life Sciences Scenario would have more impervious surface area (893,499 square feet compared to 897,691 square feet), and would therefore result in greater surface runoff volumes and velocities. As such, the surface water hydrology analysis in the Storm Drainage Technical Study is based on the Life Sciences Scenario.
- **Solid Waste:** Solid waste impacts are calculated based on employee-based factors, and employee-generated solid waste in the City occurs at a rate of 5 lbs/employee/day.<sup>56</sup> As described in greater detail in Section 4.12, *Population and Housing*, the Office Scenario (inclusive of Phase 1) would have a larger population of employees (10,745 net new employees) than the Life Sciences Scenario (5,331 net new employees). Therefore, the Office Scenario is considered the “worst case” scenario for solid waste impacts, and is therefore evaluated below.
- **Electricity, Natural Gas, and Telecommunications:** As demonstrated in Section 4.5, *Energy*, the Office Scenario the worst-case scenario in terms of the energy consumption associated with operation, resulting in a greater demand for electricity and natural gas than the Life Sciences Scenario. Therefore, the analysis of electricity and natural gas impacts is based on the Office Scenario. For telecommunications, it is anticipated that demand would be similar under either buildout scenario. Therefore, the analysis of telecommunications impacts addresses both the Office and Life Sciences Scenarios.

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<sup>52</sup> EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

<sup>53</sup> BKF. 2020. Water Infrastructure Technical Study. December.

<sup>54</sup> The buildout scenarios for water impacts and wastewater impacts are different because different demand factors are applied. For the water modeling, the demand factors used were 0.13 gpd for office per square foot and 0.21 gpd for R&D per square foot, based on factors used by Cal Water. Because the Life Science buildout scenario includes more R&D space and the R&D demand factor is considerably higher as compared to office, the Life Science buildout yields the greatest total water demand despite having less total square footage compared to the Office Scenario. For the wastewater modeling, demand factors from the City’s Sanitary Sewer Master Plan were used, which do not distinguish between office and R&D building uses; as such, both the Office buildout and the Life Science buildout are modeled at 0.0248 gpd per square foot. In this case, the Office buildout scenario yields the largest total wastewater generation as it has comparatively more square footage of building area.

<sup>55</sup> BKF. 2021. Sanitary Sewer Technical Study. January.

<sup>56</sup> California Department of Resources Recycling and Recovery. 2019. Disposal Rate Calculator – South San Francisco. Available: <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator>. Accessed: September 24, 2020.

### 4.17.4.3 Impact Evaluation

**Impact UTIL-1: The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects. (Project: Less than Significant; Phase 1: Less than Significant)**

The proposed project, inclusive of the Phase 1 site, would involve the relocation, construction, or expansion of numerous utility facilities in order to provide utilities services for the new land uses associated with the project, as described below in **Table 4.17-5**. 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 EIR (e.g., refer to Section 4.2, *Air Quality*; Section 4.9, *Hydrology and Water Quality*; and Section 4.11, *Noise and Vibration*, etc.). The purpose of the analysis in this Section 4.17, *Utilities and Service Systems*, is to evaluate whether the proposed facilities would have adequate capacity to serve the project's demand for utilities and service systems during construction and operation, or whether further relocation or construction of new or expanded facilities would be required.

**Table 4.17-5. Proposed Water, Wastewater, and Storm Drain Improvements**

<b>Existing Facility (Jurisdiction in which Facility is Located)</b>	<b>Location</b>	<b>Proposed Action</b>
16-inch water main (San Bruno)	Huntington Avenue, east of Sneath Lane intersection	Relocate east within Huntington Avenue to avoid conflict with Huntington intersection improvements.
6-inch water main (CalWater / South San Francisco)	South Linden Avenue and Dollar Avenue north and south of the new Southline Avenue	Relocate to conform with the proposed realignment of the Southline Avenue / South Linden Avenue / Dollar Avenue intersection.
New facility (CalWater / South San Francisco)	Southline Avenue	Install new 12-inch water main from South Maple Avenue along the entirety of Southline Avenue to the existing six-inch water line on South Linden Avenue.
New facility (CalWater / South San Francisco)	Tanforan Avenue, South Maple Avenue, Southline Avenue, and South Linden Avenue	Install new service connections to each building within the Specific Plan area.
24-inch and 27-inch sewer main (South San Francisco)	Tanforan Avenue and Shaw Road	Upsize mains in Tanforan Avenue and Shaw Road that flow to existing pump station.
24-inch sewer main (South San Francisco/San Bruno)	Huntington Avenue, east of Sneath Lane	Relocate east to avoid conflict with Huntington intersection improvements.
8-inch sewer main (South San Francisco)	Dollar Avenue south of the new Southline Avenue	Install new 8-inch sewer main to connect proposed development south to Tanforan Avenue.
8-inch sewer main (South San Francisco)	South Maple Avenue	Upsize main to the northerly portion of South Maple Avenue and the main that runs from South Maple Avenue through an easement to Lowrie Avenue.

<b>Existing Facility (Jurisdiction in which Facility is Located)</b>	<b>Location</b>	<b>Proposed Action</b>
New facility (South San Francisco)	Tanforan Avenue, South Maple Avenue, Southline Avenue, and South Linden Avenue	Install new sewer connections to each new building within the Specific Plan area.
24-inch storm drain main (South San Francisco)	South Linden Avenue and Dollar Avenue north and south of the new Southline Avenue	Install new 24-inch storm drain to conform with the proposed realignment of the Southline Avenue / South Linden Avenue / Dollar Avenue intersection.
42-inch storm drain main (South San Francisco/San Bruno)	Huntington Avenue, east of Sneath Lane and Tanforan Avenue	Relocate east within Huntington to avoid conflicts with proposed Huntington intersection improvements.
New facility (South San Francisco)	Tanforan Avenue, South Maple Avenue, Southline Avenue, and South Linden Avenue	Install new stormwater connections from the new buildings to public storm drain system.

The proposed water supply improvements are shown in **Figure 4.17-1, p. 4.17-12**; the proposed wastewater improvements are shown in **Figure 4.17-2, p. 4.17-14**; and the proposed storm drain improvements are shown in **Figure 4.17-3, p. 4.17-17**.

## Construction

### *Project*

The proposed project would require construction activities within the proposed Specific Plan area and the off-site improvement areas. Therefore, this discussion evaluates construction impacts on utilities from new development within the entire project site (i.e., Specific Plan area and off-site improvement areas).

Construction activities within the project site 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 and operation of construction equipment, would be serviced by existing electric outlets and that no expansion 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.

As discussed in Section 4.9, *Hydrology and Water Quality*, of this EIR, temporary construction dewatering would be required during certain site preparation and subterranean construction within the Specific Plan area associated with excavation for the subterranean garages. Groundwater dewatering would only be required for major excavations in Specific Plan Area and only in the South San Francisco jurisdiction. Dewatering would not be required for construction in off-site improvement areas. Dewatering would be discharged into the storm drain system, subject to

applicable regulatory controls. Discharging to the public storm drainage system is permitted by the RWQCB under either the VOC and Fuel Discharge Permit (Order R2-2017-0048) if there are priority pollutants identified, or by the Construction General Permit (Order 2009-0009-DWQ) if there are no pollutants. Dewatering activities associated with construction of the proposed subterranean parking garages would be expected to result in a dewatering discharge rate of 45 gallons per minute (gpm) to 450 gpm, depending on the location within the Specific Plan area and the amount of time dewatering has occurred.<sup>57</sup> Compared to the total existing 10-year peak storm drain flow of 37.62 cubic feet per second (CFS; or 16,885 gpm), dewatering discharge rates would be less than peak storm flows and would be within system capacity, as further described in Section 4.9, *Hydrology and Water Quality*, Impact HWQ-2. Therefore, this rate of dewatering is not expected to result in storm drain capacity exceedance issues because dewatering flows would be below system capacity. Further, the contractor would comply with San Francisco Bay Regional Water Board and Construction General Permit requirements related to discharges associated with dewatering activities.

While not anticipated, if additional dewatering capacity is needed, the project could discharge to the sanitary sewer system. The City of South San Francisco is the permitting agency for dewatering permits to the sanitary sewer system. The discharge rate to the sanitary sewer system would be restricted to the anticipated average dry weather flow rate of 12 gpm. As discussed below, the sanitary system is designed to accommodate the average dry weather flow. Therefore, the sanitary sewer system would have capacity to receive excess dewatering discharge, if needed.

Based on the analysis above, 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***. No mitigation is required.

### ***Phase 1***

For the reasons stated above in the proposed project analysis, construction impacts associated with Phase 1 would be ***less than significant***. No mitigation is required.

## **Operation**

### ***Project***

#### ***Water Facilities***

The proposed off-site improvements would not generate a demand for water service. Therefore, this discussion focuses on the potential impacts on water infrastructure from new development within the Specific Plan area.

As shown in **Table 4.17-3, p. 4.17-7**, and **Figure 4.17-1, p. 4.17-12**, the proposed project would relocate the existing 16-inch water main east within Huntington Avenue to avoid a conflict with the Huntington Avenue intersection improvements; relocate the existing 6-inch water main at South Linden Avenue and Dollar Avenue to conform with the proposed realignment of the Southline Avenue/Linden Avenue/Dollar Avenue intersection; install a new 12-inch water main from South Maple Avenue along the entirety of Southline Avenue to the existing six-inch water line on South

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<sup>57</sup> Cornerstone Earth Group. 2020. Design-Level Geotechnical Investigation for the Southline Development, Appendix D, Groundwater Control Assessment. July.

Linden Avenue; and install new service connections to each building on the project site. These infrastructures upgrades would ensure that adequate water pressure would be maintained during peak hour conditions.

The construction of the proposed water infrastructure improvements would have the potential to cause significant adverse environmental effects such as fugitive dust generation, noise generation, 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 EIR (e.g., refer to Section 4.2, *Air Quality*; Section 4.9, *Hydrology and Water Quality*; and Section 4.11, *Noise and Vibration*, etc.).

The Water Infrastructure Technical Study in **Appendix 4.17-2** of this EIR evaluates the sufficiency of the local potable water system to serve the proposed project's water demand. The analysis accounts for the proposed pipeline improvements identified in **Table 4.17-3**, **p. 4.17-7**, and shown in **Figure 4.17-1**, **p. 4.17-12**, and concludes that all fire flow locations evaluated will meet fire flow requirements under project buildout conditions under the maximum demand Life Sciences Scenario, and that adequate water pressure would be maintained during peak hour conditions. Based on flow information provided by CalWater, the fire flow available at the existing public fire hydrants meets the required flow of 6,000 gpm. Also, the Fire Marshal would evaluate fire flow locations to ensure that they meet applicable requirements at build-out, in accordance with California Fire Code Appendix BB. In addition, the project proposes to install a dedicated fire service and metered domestic water service for each proposed building. The project also would include metered irrigation service within the Specific Plan area, as well as the public landscape areas as part of the roadway and streetscape improvements. Therefore, the project would not require or result in the relocation or construction of new or expanded water facilities beyond the facilities already included in the Project Description and evaluated in this EIR, the construction or relocation of which could cause significant environmental effects. This impact would be *less than significant*. No mitigation is required.

#### *Wastewater Facilities*

The proposed off-site improvements would not generate a demand for wastewater service. Therefore, this discussion focuses on the potential impacts on wastewater infrastructure from new development within the Specific Plan area, including impacts on downstream infrastructure shared by the Cities of South San Francisco and San Bruno.

Wastewater generated within the Specific Plan area would be conveyed through sewer pipelines through Tanforan Avenue, Maple Avenue, and S. Linden Avenue into the sewer system and eventually to the Shaw Road Pump Station. Wastewater would then be transported from the South San Francisco Shaw Road Sewage Pump Station to the WQCP in South San Francisco for treatment. As described below in Impact UTIL-3, the treatment facility has sufficient capacity to support anticipated project-generated wastewater quantities.

As shown in **Table 4.17-3**, **p. 4.17-7**, and **Figure 4.17-2**, **p. 4.17-14**, the proposed project would upgrade the 24-inch and 27-inch sewer main in Tanforan Avenue and Shaw Road that flows to an existing pump station; relocate the existing 24-inch sewer main east to avoid conflict with the Huntington Avenue intersection improvements; relocate the existing 8-inch sewer main at Dollar Avenue to connect to the proposed development south to Tanforan Avenue; upsize the 8-inch sewer main in the northerly portion of South Maple Avenue and the main that runs from South Maple Avenue through an easement to Lowrie Avenue; and relocate all existing interior sewer connections by installing new service connections to each building within the Specific Plan area. These

improvements would be completed by the project applicant and/or subsequent Precise Plan applicants in connection with each phase of the project and are also consistent with the capital improvements identified in the City's SSMP.

The construction of the proposed wastewater infrastructure improvements would have the potential to cause significant adverse environmental effects such as fugitive dust generation, noise generation, 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 EIR (e.g., refer to Section 4.2, *Air Quality*; Section 4.9, *Hydrology and Water Quality*; and Section 4.11, *Noise and Vibration*).

The Sanitary Sewer Technical Study in **Appendix 4.17-3** of this 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 SSMP, under the maximum demand Office Scenario. The analysis accounts for the proposed pipeline improvements identified in **Table 4.17-3**, **p. 4.17-7**, and shown in **Figure 4.17-2**, **p. 4.17-14**, and the project's projected wastewater demand. The City also revised the SSMP to model for the maximum FAR allowed under the General Plan for the proposed Specific Plan area (2.5), which is slightly higher than the proposed project's FAR of 2.4. The results of that reevaluation indicate that the maximum proposed sewer demands for the project would be within the anticipated SSMP levels for future demands for the project area, and no additional improvements to off-site or downstream public infrastructure, including infrastructure shared by the Cities of South San Francisco and San Bruno, would be required beyond those currently identified in the SSMP.<sup>58</sup> Therefore, the project would not require or result in the relocation or construction of new or expanded wastewater facilities beyond the facilities already included in the Project Description and evaluated in this EIR, the construction or relocation of which could cause significant environmental effects. This impact would be *less than significant*. No mitigation is required.

#### *Stormwater Drainage Facilities*

The proposed project would have the potential to alter stormwater flows from the proposed Specific Plan area and the off-site improvement areas. Therefore, this discussion evaluates impacts on stormwater infrastructure from new development within the entire project site (i.e., Specific Plan area and off-site improvement areas).

As described in greater detail in Section 4.9, *Hydrology and Water Quality*, the proposed project (Life Sciences Scenario) would result in an increase (189,050 square feet) of pervious surface within the Specific Plan area (including an increase of 132,858 square feet of pervious surface under Phase 1) through implementation of new landscaping and other improvements. This would reduce flows to the storm drain system from the Specific Plan area compared to existing conditions within both watersheds that make up the Specific Plan area. The off-site improvement areas would be developed with roadway and infrastructure improvements and would remain mostly impervious, consistent with existing conditions. Given the limited nature of the proposed circulation and utility improvements, similar runoff volumes from the off-site improvements are anticipated.

Notwithstanding the overall reduction in stormwater flow volumes that would occur, the proposed project includes improvements to the storm drain system to align the system with the future roadway configurations and implement improvements already identified in the City's Storm Drain

<sup>58</sup> City of South Francisco. 2021. City-Wide Sewer System Master Plan. February.

Master Plan. As shown in **Table 4.17-3, p. 4.17-7**, and **Figure 4.17-3, p. 4.17-17**, the proposed project would install a new 24-inch storm drain main to conform with the proposed realignment of the Southline Avenue/Linden Avenue/Dollar Avenue intersection; relocate the 42-inch storm drain main in South San Francisco and San Bruno east within Huntington Avenue to avoid conflicts with the proposed Huntington Avenue intersection; and install new stormwater mains with lateral connections from the new buildings to public storm drain system. The project would be served by the existing public storm drain infrastructure within Tanforan Avenue and South Maple Avenue and does not anticipate construction of new public storm drainage infrastructure within those roadways or downstream.

The construction of the proposed storm drain infrastructure improvements would have the potential to cause significant adverse environmental effects such as fugitive dust generation, noise generation, 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 EIR (e.g., refer to Section 4.2, *Air Quality*; Section 4.9, *Hydrology and Water Quality*; and Section 4.11, *Noise and Vibration*).

Stormwater runoff from the Specific Plan area would be captured and treated on-site using LID methods (landscaped bioretention and biofiltration planters) per current NPDES Municipal Regional Permit section C.3 requirements, as described in greater detail in Section 4.9, *Hydrology and Water Quality*, of this EIR. Treated runoff would discharge to the public storm drain system through new on-site underground storm drain piping, as described above. The new Southline Avenue would contain new public storm drain infrastructure, as well as public bioretention planters, to capture, treat, and convey storm runoff from the new public roadway and adjacent sidewalk areas. This new storm drain infrastructure would be connected to the existing infrastructure in Tanforan Avenue through new public storm drain piping in Dollar Avenue.

Proposed public storm drainage improvements or public storm water treatment areas within the City of San Bruno would also be connected to the existing public storm drainage system, and would be constructed in compliance with the San Bruno Green Infrastructure Plan. The project would also construct pedestrian circulation and trail improvements on Huntington Avenue consistent with the Green Infrastructure Plan. The proposed project's off-site improvement of the new intersection and Huntington Avenue would support accessibility by the Green Infrastructure Plan's implementation of the Huntington Cycle Track terminus at the Centennial Way Trail. The project does not contain any policies that would interfere with the implementation of the goals or projects described in the Green Infrastructure Plan.

The project would be required to comply with the Municipal Regional Permit San Mateo Countywide Water Pollution Prevention Program C.3 Stormwater Technical Guidance. Specifically, the project would be required to replicate the pre-project stormwater water balance under NPDES permitting requirements. The stormwater management measures proposed for the project include incorporating sustainable and environmentally sensitive design and equipment, water conservation measures and drought-tolerant/low-water use or equivalent landscaping, and sustainable stormwater management features. Development within the Specific Plan area would also be required to comply with the City's standard development conditions regarding both stormwater conveyance and water quality, in addition to any other applicable federal, state and local requirements regarding stormwater discharge, described in further detail in Section 4.9, *Hydrology and Water Quality*, of this EIR. The applicable City standard conditions regarding stormwater drainage and surface runoff detention measures include Condition No. 13, requiring a plan showing

the location of all storm drains and sanitary sewers; Condition No. 23, requiring all parking spaces, driveways, maneuvering aisles, and turn-around areas to be drained and plumbed to the sanitary sewer; and Condition No. 24, requiring on-site stormwater catch basins to be stenciled with the approved San Mateo Countywide Stormwater Logo.

Based on the analysis above, the project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities beyond the facilities already included in the Project Description and evaluated in this EIR, the construction or relocation of which could cause significant environmental effects as further described throughout this EIR (e.g., refer to Section 4.2, *Air Quality*; Section 4.9, *Hydrology and Water Quality*; and Section 4.11, *Noise and Vibration*). This impact would be ***less than significant***. No mitigation is required.

#### *Electricity, Natural Gas, and Telecommunications Facilities*

The proposed off-site improvements would not generate a demand for electricity, natural gas, or telecommunication services. Therefore, this discussion focuses on the potential impacts on electricity, natural gas, and telecommunications infrastructure from new development within the Specific Plan area.

The utility providers for the Specific Plan area would be PG&E for natural gas and electricity and Comcast and AT&T for telecommunications service. Implementation of the proposed project would increase the demand for natural gas, electricity, and telecommunications service at the Specific Plan area. The total cumulative peak power demand for the proposed project at full buildout is about 11 megavolt amperes (MVA)<sup>59</sup> and the buildout of the Specific Plan would increase operational electricity consumption at the Specific Plan area by 143,445 million BTUs compared with existing conditions.<sup>60</sup> To meet this demand, the proposed project would install new connections to the surrounding PG&E electric grid to provide service to future buildings, including a 600A, 12kV main electrical line and 200A, 12kV protected radial electrical tap lines throughout the Specific Plan area. Several existing overhead electrical lines would also be converted to underground electrical lines along S. Maple Avenue, Tanforan Avenue, and Dollar Avenue.<sup>61</sup>

In addition, buildout of the Specific Plan would increase operational natural gas consumption at the Specific Plan area by 56,463 million BTUs compared with existing conditions.<sup>62</sup> As indicated in the Gas Will Serve Letter (**Appendix 4.17-5**), PG&E has confirmed that adequate gas supply and infrastructure capacity is available to serve the project. Demand for telecommunications would also increase due to increased density and from the transition from industrial/warehouse uses to office/R&D uses, which generally have greater demand for technology services. To meet this demand, the project would install new connections to the surrounding PG&E 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 Specific Plan area.

As discussed in Section 4.7, *Greenhouse Gas Emissions*, of this EIR, the sustainability measures incorporated within the Specific Plan area, including Phase 1, would reduce energy use consistent with the 2017 Climate Change Scoping Plan. Future development within the Specific Plan area,

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<sup>59</sup> Power Systems Design. 2021. PG&E Electric/Dry Utility Planning Study. April.

<sup>60</sup> Refer to **Appendix 4.2-1** for CalEEMod model outputs.

<sup>61</sup> Power Systems Design. 2021. PG&E Electric/Dry Utility Planning Study. April.

<sup>62</sup> Refer to **Appendix 4.2-1** for CalEEMod model outputs.

including Phase I, would achieve a minimum LEED version 4 Silver rating or equivalent. Examples of the proposed sustainability measures include all-electric energy sources to the extent feasible (and high-efficiency units for any new natural gas appliances); passive design strategies to minimize reliance on active heating and cooling systems; and energy-efficient heating, ventilation, and air-conditioning (HVAC) systems and equipment. The project will also be required to comply with the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations (CALGreen), which includes green and sustainable building requirements to achieve energy efficiency, water efficiency and conservation, reduce construction waste, and material conservation and resource efficiency.

The construction of the proposed electricity, natural gas, and telecommunications infrastructure improvements incorporated within the project would have the potential to cause significant adverse environmental effects such as fugitive dust generation, noise generation, 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 EIR (e.g., refer to Section 4.2, *Air Quality*; Section 4.9, *Hydrology and Water Quality*; and Section 4.11, *Noise and Vibration*, etc.).

Based on the analysis above, the project would not require or result in the relocation or construction of new or expanded electric, natural gas, and telecommunications facilities beyond the facilities already included in the Project Description and evaluated in this EIR, the construction or relocation of which could cause significant environmental effects. This impact would be ***less than significant***. No mitigation is required.

### ***Phase 1***

#### ***Water Facilities***

As shown in **Table 4.17-3, p. 4.17-7, and Figure 4.17-1, p. 4.17-12**, multiple potable water pipeline facilities would be abandoned, relocated, and expanded to accommodate Phase 1 development. Though some of these facilities are located outside of the direct Phase 1 footprint, they would all be constructed to support operational Phase 1 needs as part of Phase 1. These specific improvements are described above for the Specific Plan area, as the majority of these improvements would be completed during Phase 1. As with the project, Phase 1 would increase water use within the Specific Plan area as compared to existing uses, thus increasing the quantity of water that must be conveyed through water facilities. As a component of the project, Phase 1 would also achieve LEED version 4 silver rating, which would incorporate water use reduction strategies that would reduce anticipated water demand associated with Phase, thereby minimizing the affects that elevated use may have on water conveyance facilities. Furthermore, the water demand associated with Phase 1 is accounted for in the Water Infrastructure Technical Study which concludes that adequate water supply capacity would be maintained, as discussed above in the project analysis. Therefore, for the reasons stated above in the project analysis, Phase 1 would not require or result in the relocation or construction of new or expanded water facilities beyond the facilities already included in the Project Description and evaluated in this EIR, the construction or relocation of which could cause significant environmental effects. This impact would be ***less than significant*** impact. No mitigation is required.

#### ***Wastewater Facilities***

As noted in the project analysis above, the Sanitary Sewer Technical Study, included as **Appendix 4.17-3** of this EIR, evaluates the sufficiency of the local wastewater conveyance system to serve the

project's estimated wastewater flow, including Phase 1, and determines that the sewer demands of the proposed project would still be within the anticipated SSMP levels for future demands for the project area. In addition, the wastewater facility improvements to upgrade the 24-inch and 27-inch sewer main in Tanforan Avenue and Shaw Road, as shown in **Figure 4.17-2, p. 4.17-14**, would be completed as part of Phase 1. All other improvements to wastewater facilities would be completed during subsequent phases of the project. Therefore, for the reasons stated above in the project analysis, Phase 1 would not require or result in the relocation or construction of new or expanded wastewater facilities beyond the facilities already included in the Project Description and evaluated in this EIR, the construction or relocation of which could cause significant environmental effects. This impact would be ***less than significant***. No mitigation is required.

#### *Stormwater Drainage Facilities*

As shown in **Table 4.17-3, p. 4.17-7**, and **Figure 4.17-3, p. 4.17-17**, multiple stormwater drainage facilities would be abandoned, relocated, and expanded to accommodate Phase 1. Though some of these facilities are located outside of the Phase 1 site footprint, they would all be constructed to support operational Phase 1 needs and would be constructed as part of Phase 1. These specific improvements are described above for the Specific Plan area. In addition, the drainage estimates in the Storm Drainage Technical Study (**Appendix 4.17-4**) account for Phase 1. Therefore, for the reasons stated above in the project analysis, Phase 1 would not require or result in the relocation or construction of new or expanded stormwater drainage facilities beyond the facilities already included in the Project Description and evaluated in this EIR, the construction or relocation of which could cause significant environmental effects. This impact would be ***less than significant***. No mitigation is required.

#### *Electricity, Natural Gas, and Telecommunications Facilities*

As discussed in Section 4.7, *Greenhouse Gas Emissions*, of this EIR, the sustainability measures incorporated in Phase 1 would reduce energy use consistent with the 2017 Climate Change Scoping Plan. Like the project, Phase 1 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. Phase 1 would install new connections to the surrounding PG&E electric grid and natural gas system to provide service to future buildings. Phase 1 would also provide connections to communication lines along adjacent roadways. Phase 1 does not propose major upgrades to natural gas, electricity, and telecommunications infrastructure serving the Phase 1 site. Therefore, for the reasons stated above in the project analysis, Phase 1 would not require or result in the relocation or construction of new or expanded electricity, natural gas, and telecommunications facilities beyond the facilities already included in the Project Description and evaluated in this EIR, the construction or relocation of which could cause significant environmental effects. This impact would be ***less than significant*** for Phase 1. No mitigation measures are required.

**Impact UTIL-2: The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (Project: Less than Significant With Mitigation; Phase 1: Less than Significant With Mitigation)**

### **Project**

The proposed off-site improvements would not generate a demand for potable water. Therefore, this discussion focuses on the potential impacts on water supply from new development within the Specific Plan area.

### **Projected Water Demand**

**Table 4.17-6, p. 4.17-42**, describes anticipated operational water uses associated with the proposed project, inclusive of Phase 1. Water demands were estimated based on standard unit demand factors as described in the project's WSA, which is included in **Appendix 4.17-1** of this EIR. As determined by the project engineers, and shown in Table 1 of the WSA, the Life Sciences Scenario would generate a greater demand for water than the Office Scenario; therefore, this analysis assumes buildout of the Life Sciences Scenario. The unit demand factor used for the R&D portions of the proposed project is 0.21 gallons per day/square foot (gpd/sf). The unit demand factors utilized for the amenities building vary from 0.10 gpd/sf to 0.80 gpd/sf depending on specific amenity use type (e.g., restaurant, cafeteria, fitness, or auditorium uses). All unit demand factors were sourced from published Redwood City water demand assumptions, which are substantially higher than those of current non-residential uses within the South San Francisco District, which, based on 2016-2018 data, are 0.063 gpd/sf.<sup>63</sup> Furthermore, the project's annual water demand estimate assumes full operation of the project 365 days/year, which is unlikely for the types of non-residential uses proposed. Therefore, this represents a conservative analysis of water demand for the proposed project.

As shown in **Table 4.17-6**, below, the proposed project, inclusive of Phase 1, would require up to approximately 557 AFY of water for each year through 2045 based on the demand factors described above. The analysis conservatively assumes that the project's full demand would be realized in 2025 even though full buildout is projected for 2030. Water demand beyond the proposed project's buildout year of 2030 is presented because California Water Code Sections 10910-10912 specify that a WSA must look at supplies and demand on a 20-year horizon (i.e., to 2040), but given the available data, the WSA for the proposed project looks beyond that to 2045, consistent with the 2020 UWMP for the South San Francisco District.

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<sup>63</sup> EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

**Table 4.17-6. Anticipated Water Demand for Project Buildout (Life Sciences Scenario), Including Phase 1**

Water Use	Area (sf)	Demand Factor (gpd/sf)	Total Water Demand (AFY)				
			2025	2030	2035	2040	2045
R&D	1,936,850	0.21	456	456	456	456	456
Amenity Building							
Restaurant/ Dining	16,400	0.47	8.7	8.7	8.7	8.7	8.7
Cafeteria	9,000	0.80	8.1	8.1	8.1	8.1	8.1
Fitness Center	49,000	0.75	41	41	41	41	41
Auditorium/Other	13,800	0.10	1.5	1.5	1.5	1.5	1.5
Irrigation	260,400	0.070	20	20	20	20	20
Distribution System Losses <sup>1</sup>	--	--	33	33	33	33	33
Existing Site Demand <sup>2</sup>	--	--	-11	-11	-11	-11	-11
<b>Total Annual Water Demand<sup>3</sup></b>			<b>557</b>	<b>557</b>	<b>557</b>	<b>557</b>	<b>557</b>

Source: EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

sf = square feet; gpd = gallons per day; AFY = acre-feet per year

<sup>1</sup> Estimated distribution system water loss is calculated using the 2019 DWR Water Audit Report percent water loss (i.e., 5.8% of project demands), and includes both real and apparent losses.

<sup>2</sup> Existing demands are subtracted from total projected water demands to show the incremental increase in demands associated with the project.

<sup>3</sup> Total may not sum due to rounding.

The estimated project demand shown in **Table 4.17-6**, above, is also conservative because it does not account for the project's numerous sustainability features that would reduce water consumption. All phases of the project, including Phase 1, would achieve a minimum LEED version 4 Silver rating and would be consistent with the South San Francisco Municipal Code and the 2019 California Green Building Standards Code, commonly referred to as CALGreen. Examples of the proposed sustainability measures include use of water efficient devices (i.e., plumbing fixtures, appliances, and cooling equipment) and water efficient landscaping practices, such as landscaping with native, drought-tolerant plants. The proposed project would also be subject to the City's CAP requirements, including the Water Efficient Landscape Ordinance requirements for landscaping. Lastly, the Specific Plan (**Appendix 2**) includes a number of design guidelines that would encourage water reduction, such as the following:

- Incorporate sustainable and environmentally sensitive design and equipment, energy conservation features, water conservation measures and drought-tolerant or equivalent landscaping, and sustainable stormwater management features.
- Encourage sustainable design solutions that reduce energy consumption, use water efficiently, and minimize waste.
- When feasible, utilize local, native and/or adaptive plant materials.
- Landscape buffers should include a combination of native and/or adaptive trees. They should be complemented by layered ground plant materials that are site and microclimate appropriate, including shrubs, ornamental grasses and groundcovers.

- Landscape buffers should include, where feasible, stormwater treatment areas that are compliant with low impact development policies, incorporating native and/or adaptive landscaping that is drought tolerant and able to handle periods of inundation.

### ***Projected Water Supply***

The projected potable water supply sources are surface water purchased from the City and County of San Francisco's Regional Water System (RWS), local surface water from the Bear Gulch Reservoir, and groundwater. As shown in **Table 4.17-2, p. 4.17-6**, Cal Water's 2020 UWMP for the South San Francisco District states that Cal Water will have sufficient supplies to serve the projected demand within the South San Francisco District, Mid-Peninsula District, and Bear Gulch District for normal hydrologic years through 2045, with no excess supplies available. The demand estimate in the 2020 UWMP includes an estimated demand of 527 AFY for the project, including Phase 1. As shown in **Table 4.17-6**, the project's estimated demand at full buildout would be 557 AFY. Although this is a conservative estimate, as discussed above, the estimated demand in the project's WSA exceeds the assumed project demand in the 2020 UWMP, and excess supplies are not forecasted during normal year conditions. As discussed in Section 4.17-3, Cal Water has stated that it intends to adopt a Water Neutral Development Policy in the coming months, which would require any new residential, commercial, or industrial development within the South San Francisco District that is expected to use 100 AFY or more in new demand to offset its net increase in water demand. If the Water Neutral Development Policy is adopted as indicated, it would reduce the project's estimated water demand. However, the potential would remain for the project to exceed the 527 AFY assumed in the 2020 UWMP (e.g., if the Water Neutral Policy is not enforced during normal year conditions, or if the Water Neutral Development Policy is not adopted or does not apply to certain development within the Specific Plan area). Therefore, a significant impact could occur at project buildout during normal year conditions.

**Mitigation Measure UTIL-1** requires the City to monitor the estimated water demand for new development under the Specific Plan and limit the total demand to no more than 527 AFY, consistent with the 2020 UWMP's estimate for the project. Limiting the project's total demand to 527 AFY is considered feasible given the conservative assumptions applied in the WSA's demand estimate (i.e., demand rates, assumed operation of 365 days/year, and no deduction for sustainability features). With implementation of **Mitigation Measure UTIL-1**, impacts during normal year conditions would be less than significant with mitigation.

As discussed in Section 4.17-3, during single dry years, the annual supply within the three Peninsula Districts' service areas will be reduced to 21,039 AFY by 2045. Supply shortfalls relative to total demands during single dry years are estimated to range between 34 percent in 2025 and 44 percent in 2045. During multiple dry years, the annual supply within the three Peninsula Districts' service areas will be reduced to 23,615 AFY in 2025 during the first year of a drought, and 20,492 AFY in 2025 in the second, third, fourth, and fifth years of drought. Supply shortfalls relative to total demands are estimated to range between 36 percent during the first year of a drought in 2025 to 53 percent during the fifth year of a drought in 2045. These estimates assume implementation of the Bay-Delta Plan Amendment, which, as described in Section 4.17-2, is uncertain. The project's projected increased demand of up to 557 AFY (up to 527 AFY with implementation of **Mitigation Measure UTIL-1**) would exacerbate existing projected shortages during dry year conditions and assuming implementation of the Bay-Delta Plan Amendment. Therefore, a significant impact would occur during dry year conditions.

To address projected dry year shortfalls, under Rule 14.1, Cal Water plans to enact its WSCP, which includes Mandatory Staged Restrictions of Water Use. The WSCP systematically identifies ways in which the South San Francisco, Bear Gulch, and Mid-Peninsula Districts will reduce water demands during dry years. The overall reduction goals in the WSCP are established for six drought stages and address water demand reductions from ten percent to greater than 50 percent. According to the 2020 UWMP, Cal Water expects to be able to meet all future demands within its existing South San Francisco District service area (as well as the Mid-Peninsula and Bear Gulch Districts) during dry years with implementation of the WSCP (assuming a demand of 527 AFY for the project, ensured through implementation of **Mitigation Measure UTIL-1**). As stated in the project's WSA (**Appendix 4.17-1**), the project would also be required to comply with Cal Water's planned Water Neutral Development Policy, if adopted. **Mitigation Measure UTIL-2** requires the project to comply with the WSCP and the Water Neutral Development Policy, if adopted. Therefore, with implementation of **Mitigation Measure UTIL-1** and **Mitigation Measure UTIL-2**, the project would not require new or expanded water supply entitlements or resources, and impacts would be *less than significant with mitigation*.

**Mitigation Measure UTIL-1: Limit Total Water Demand under the Specific Plan to 527 AFY (Future Phases)**

If Cal Water has lawfully adopted a Water Neutral Development policy that is applicable to the project at the time a Certificate of Occupancy is requested for projects under the Specific Plan, the applicant(s) shall be required to demonstrate to the satisfaction of Cal Water that the project complies with said policy. Upon demonstrating compliance with said policy, no further action is required. The applicant(s) shall provide the City with documentation of Cal Water's concurrence that the project has complied with said policy.

If a Water Neutral Development policy has not been lawfully adopted or is not applicable to the project at the time a Certificate of Occupancy is requested, applicants of future Precise Plans shall prepare an estimate of their individual project's net water demand for the City's review and approval prior to the issuance of the Certificate of Occupancy. The net increase in water demand shall be calculated based on the expected total water use due to the proposed development and/or expansion, minus the amount of existing water use, onsite credits, alternative onsite sources of water supply, and/or offsite credits.

The City shall ensure, through its review of individual projects' demand estimates, that the individual project's net increase in demand does not result in total demand within the Specific Plan area that exceeds 527 AFY. When preparing demand estimates for a future phase(s) of development, applicants shall include Phase 1's net increase in demand based on actual water usage data for Phase 1, if Phase 1 is fully constructed and operational and such data are readily available. If Phase 1 is not fully constructed and operational, or if actual water demand data are not readily available, the applicant shall prepare an estimate of the Phase 1 demand and include it in the estimate of total demand. If the total estimated demand for all projects within the Specific Plan is found to exceed 527 AFY, the City shall withhold issuance of a Certificate of Occupancy for that portion of the project that causes total demand within the Specific Plan area to exceed 527 AFY until the applicant provides evidence that additional water supply is available, or sufficient offsets are provided, to satisfy any additional demand in excess of 527 AFY.

## Mitigation Measure UTIL-2: Implement Measures to Address Projected Dry Year Water Shortages (All Phases)

If Cal Water has lawfully adopted a Water Neutral Development policy that is applicable to the project at the time a Certificate of Occupancy is requested for projects under the Specific Plan, the applicant(s) shall be required to demonstrate to the satisfaction of Cal Water that the project complies with said policy. Upon demonstrating compliance with said policy, no further action is required. The applicant(s) shall provide the City with documentation of Cal Water's concurrence that the project has complied with said policy.

If said policy has not been lawfully adopted or is not applicable to the project at the time a Certificate of Occupancy is requested and the 2018 amendment to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) is not being implemented as adopted due to pending or concluded litigation, rescission, modification through voluntary agreement(s), or other circumstances, no further action is required.

If said policy has not been lawfully adopted or is not in effect at the time the Certificate of Occupancy is requested and the Bay-Delta Plan Amendment is being implemented, then if a Shortage Level 1 or greater shortage has been established, as defined under the Cal Water 2020 UWMP Water Shortage Contingency Plan (WSCP) for the South San Francisco District or otherwise applicable WSCP at that time, applicants of projects under the Specific Plan shall comply with applicable requirements under the WSCP. Consistent with the 2020 UWMP-WSCP, coordination with Cal Water District staff will be required to determine the specific range of strategies identified under the WSCP needed to address water shortage levels, including water use restrictions and/or consumption reduction actions applicable to the project (UWMP, Appendix L, Table 5-1). The applicant(s) shall provide the City with documentation of Cal Water's concurrence that the applicant(s) have committed to implement an agreed upon strategy to address water shortage levels in compliance with the requirements of the WSCP.

### Phase 1

The water demand associated with Phase 1 is included in the estimated water demand for the project presented in the WSA and summarized above (see **Table 4.17-6, p. 4.17-42**). As discussed in the project analysis, Cal Water's 2020 UWMP for the South San Francisco District states that Cal Water will have sufficient supplies to serve the projected demand within the South San Francisco District, Mid-Peninsula District, and Bear Gulch District for normal hydrologic years through 2045 during normal years, assuming a demand of 527 AFY for the project. Applying an office demand rate of 0.13 gpd/sf,<sup>64</sup> Phase 1's net increase in demand would be significantly less than 527 AFY.<sup>65</sup> Therefore, Phase 1 impacts during normal years would be less than significant.

<sup>64</sup> EKI Environment & Water Inc. Water Supply Assessment for the Southline Specific Plan—Draft, South San Francisco District California Water Service. July 2021.

<sup>65</sup> For office use:  $612,715 \text{ SF} \times 0.13 \text{ gpd/sf} = 79,563 \text{ gpd}$  (89 AFY).  $89 \text{ AFY} + 59.3 \text{ AFY}$  (amenity building demand, **Table 4.17.6**)  $+ 20 \text{ AFY}$  (irrigation demand, **Table 4.17.6**)  $+ 33 \text{ AFY}$  (distribution system loss, **Table 4.17.6**)  $- 11 \text{ AFY}$  (existing site demand, **Table 4.17.6**)  $= 190.3 \text{ AFY}$ . Note that irrigation demand and distribution system loss estimates are for the project at buildout, and therefore applying these estimates to Phase 1 alone is conservative.

As stated above in the project analysis, during single and multiple dry years, Cal Water projects supply shortages of up to 53 percent. These estimates assume implementation of the Bay-Delta Plan Amendment, which, as described in Section 4.17-2, is uncertain. Phase 1's increase in demand would exacerbate existing projected shortages during dry year conditions. Therefore, a significant impact would occur during dry year conditions. For the reasons stated above in the project analysis, with implementation of **Mitigation Measure UTIL-2**, Phase 1 would not require new or expanded water supply entitlements or resources, and impacts would be *less than significant with mitigation*.

**Impact UTIL-3: The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected wastewater treatment demand in addition to the provider's existing commitments. (Project: Less than Significant; Phase 1: Less than Significant)**

### Project

The proposed off-site improvements would not generate a demand for wastewater treatment. Therefore, this discussion focuses on the potential impacts on wastewater treatment facilities from new development within the Specific Plan area. Specifically, impacts on the South San Francisco Water Quality Control Plant (WQCP), which serves the cities of South San Francisco, San Bruno, and Colma, are evaluated. Improvements to wastewater infrastructure are discussed under Impact UTIL-1.

As described in greater detail under Impact UTIL-2, the proposed project would increase wastewater demand within the Specific Plan area due to the intensification of land uses within the Specific Plan area. As determined by the Sanitary Sewer Technical Study included in **Appendix 4.17-3**, the Office Scenario would generate a greater demand for wastewater than the Life Sciences Scenario; therefore, this analysis assumes buildout of the Office Scenario.<sup>66</sup> This was determined using the sewer demand factors provided by the Sewer System Master Plan and applying them to the proposed building areas. The Sewer System Master Plan modeled Office Commercial areas with an Average Dry Weather Flow (ADWF) Factor of 1,080 gpd/Acre. The Sewer System Master Plan model assumed an FAR of 1.0 for the planned site area, which results in a building demand factor of 0.0248 gpd/sf. Using this demand factor, sewer demand for the proposed area was calculated. Peaking factors used to determine the Maximum Day Dry Weather Flow (MDDWF) and Maximum Day Wet Weather Flow (MDWWF) were also taken from the Sewer System Master Plan.

Based on the analysis in the Sanitary Sewer Technical Study, and as shown in **Table 4.17-5**, below, the project would result in an increase in wastewater generation of 69,440 gpd of Average Dry Weather Flow, 97,216 gpd of Maximum Day Dry Weather Flow, and 451,360 gpd of Maximum Day Wet Weather Flow. Phase 1's share of the increase in wastewater usage would be 17,383 gpd of Average Dry Weather Flow, 24,336 gpd of Maximum Day Dry Weather Flow, and 112,987 gpd of Maximum Day Wet Weather Flow.

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<sup>66</sup> BKF. 2021. Sanitary Sewer Technical Study. January.

**Table 4.17-7. Anticipated Wastewater Generation for Project Buildout (Office Scenario), Including Phase I**

Project Phasing	Proposed Sewershed Designation	SSMP Pipe System	Proposed Building	Total Area (GSF)	SSMP Demand Factor	ADWF (gpd)	MDDWF (gpd)	MDWWF (gpd)
Phase 1	A (Tanforan Ave.)	LO-P14	1	317,495	0.0248	7,874	11,023	51,180
		LO-P15	2	88,200	0.0248	2,187	3,062	14,218
		LO-P16	7	295,220	0.0248	7,321	10,250	47,589
		Sewershed Subtotal		700,915		17,383	24,336	112,987
Future Phase	B (Maple Ave.)	LO-P12	3	576,900	0.0248	14,307	20,030	92,996
		LO-P-13	4	455,560	0.0248	11,298	15,817	73,436
			5	342,265	0.0248	8,488	11,883	55,173
	Sewershed Subtotal		1,374,725		34,093	47,730	221,606	
	C (S. Linden Ave.)	LO-P13	6	724,360	0.0248	17,964	25,150	116,767
Sewershed Subtotal		724,360		17,964	25,150	116,767		
Project Totals				2,800,000		69,440	97,216	451,360

Source: BKF, Sanitary Sewer Technical Study, 2020.

Notes:

SSMP = Sanitary Sewer Master Plan; ADWF = Average Dry Weather Flow; MDDWF = Maximum Day Dry Weather Flow; MDWWF = Maximum Day Wet Weather Flow; GSF = Gross Square Foot; gpd = Gallons Per Day.

The new sewer lines would tie into the existing sanitary sewer and wastewater treatment network, which follows the Specific Plan area's boundaries along Maple Avenue, S. Linden Avenue, and Tanforan Avenue, as shown in **Figure 4.17-2, p. 4.17-14**. All wastewater and sewage generated within the Specific Plan area, including the Phase 1 site, would discharge to the pipelines along S. Maple Avenue, S. Linden Avenue, and Tanforan Avenue and the South San Francisco WQCP. After taking into account existing wastewater discharges from the Specific Plan area, which totals 12,617 gpd of Average Dry Weather Flow, 17,665 gpd of Maximum Day Dry Weather Flow, and 82,014 gpd of Maximum Day Wet Weather Flow, the project would result in a net increase of 0.06 MGD under Average Dry Weather Flow, 0.08 MGD under Maximum Day Dry Weather Flow, and 0.37 MGD under Maximum Day Wet Weather Flow, as shown in **Table 4.17-6**.

**Table 4.17-8. Anticipated Net Increase in Wastewater Generation for Project Buildout (Office Scenario)**

Flow	Existing (gpd)	Net Increase (gpd)	Net Increase (MGD)
Average Dry Weather Flow	12,617	56,823	0.06
Maximum Day Dry Weather Flow	17,665	79,552	0.08
Maximum Day Wet Weather Flow	82,014	369,346	0.37

Source: BKF, Sanitary Sewer Technical Study, 2020.

Notes:

gpd = Gallons Per Day; MGD = Million Gallons Per Day

Regarding treatment capacity, the WQCP has confirmed that there is sufficient capacity available to provide wastewater treatment for the proposed Maximum Day Wet Weather Flow flows for the proposed project, up to approximately 0.4 MGD.<sup>67</sup> This also takes into account the anticipated contributions from the City of San Bruno, according to references to the San Bruno SSMP within the South San Francisco SSMP, as the WQCP treats flows from the Cities of South San Francisco, San Bruno, and Colma. Furthermore, the 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.<sup>68</sup> Therefore, the WQCP has sufficient capacity to treat the project's net increase of approximately 0.4 MGD of wastewater. The Specific Plan's water conservation policies noted above in Impact UTIL-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. Lastly, the proposed project would be consistent with the City's Sewer Capacity Charge through its fee contribution, ensuring that wastewater treatment capacity would be maintained. Based on the above, project-related operational impacts on wastewater treatment capacity would be ***less than significant***. No mitigation is required.

### Phase 1

Wastewater that would be generated as part of Phase 1 would be a portion of that analyzed above, under project-related impacts. Because the wastewater treatment facility would have sufficient capacity to serve the project, it would also have the capacity to serve Phase 1. Therefore, operational impacts on wastewater treatment capacity from Phase 1 would be ***less than significant***. No mitigation is required.

**Impact UTIL-4: The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the project would not fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

### Project

#### Construction

The proposed project would require demolition and construction activities within the proposed Specific Plan area and the off-site improvement areas. Therefore, this discussion evaluates construction impacts on solid waste from new development within the entire project site (i.e., Specific Plan area and off-site improvement areas).

Demolition and construction activities for the project would result in a temporary increase in solid waste generation, which would occur periodically during construction. All existing on the Specific Plan area would be removed during Phase 1, totaling approximately 343,800 square feet of building

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<sup>67</sup> Schumacker, Brian. Plant Superintendent. City of South San Francisco Water Quality Control Plant Division. July 9, 2021.

<sup>68</sup> Carollo Engineers. 2011. South San Francisco/San Bruno Water Quality Control Plant Facility Plan Update. April. Available: <https://www.ssf.net/home/showdocument?id=1330>. Accessed: September 25, 2020.

demolition. The proposed project would require major grading and excavation to construct the new subterranean parking garages up to a depth of 31 feet below grade level. An estimated 32.96 acres of ground area would be disturbed, requiring a total excavation of approximately 688,400 cubic yards of soil under the Office Scenario and 353,700 cubic yards of soil under the Life Science scenario, the majority of which is anticipated to be excavated from the Specific Plan area, although a portion would come from the off-site improvement areas. However, this increase in solid waste generation would be temporary. In addition, 100 percent of all inert solids (building materials) and 65 percent of non-inert solids (all other materials) would be recycled as required by the City under Chapter 15.60 of the South San Francisco Municipal Code and under state CALGreen requirements. Any demolition and construction debris remaining after recycling would then transported to the Corinda Los Trancos (Ox Mountain) Sanitary Landfill or the Newby Island Sanitary Landfill. The Ox Mountain Sanitary Landfill had a remaining capacity of approximately 22.18 million cubic yards, and the Newby Island Sanitary Landfill had a remaining capacity of approximately 21.2 million cubic yards.<sup>69, 70</sup> The solid waste generated by demolition of construction debris from proposed project would represent a very small amount of the remaining capacity at these landfills. Hazardous solid waste from construction and demolition would comply with applicable regulations, as discussed under Section 4.8.3, *Regulatory Framework*. Therefore, the proposed project would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure during construction and would not conflict with solid waste regulations; this impact would be ***less than significant***. No mitigation is required.

### ***Operation***

The proposed off-site improvements would not generate solid waste. Therefore, this discussion focuses on the potential impacts on solid waste service and landfill capacity from new development within the Specific Plan area.

Development within the project site would result in increased site occupancy when compared to current conditions, subsequently increasing the amount of operational solid waste that would be generated within the Specific Plan area. CalRecycle provides solid waste generation rates for non-residential uses on a per-employee basis. As described in *Approach to Analysis*, above, the Office Scenario is evaluated here as the worst case scenario, with a maximum of 10,745 net new employees. The project would not result in direct population growth, as no residential uses are proposed as part of the project. Though the proposed project would result in indirect population growth within both the city 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. The estimated net new project-related operational solid waste generation (inclusive of Phase 1), assuming the Office Scenario, is displayed in **Table 4.17-9, below**, according to the most recent solid waste diversion rates and per-employee solid waste generation rates for the city provided by CalRecycle.

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<sup>69</sup> California Department of Resources Recycling and Recovery. 2020. *Corinda Los Trancos Landfill (Ox Mtn)*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223>. Accessed: September 24, 2020.

<sup>70</sup> California Department of Resources Recycling and Recovery. 2020. *Newby Island Sanitary Landfill*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1362?siteID=3388>. Accessed: September 24, 2020.

**Table 4.17-9. Estimated Solid Waste Generation for the Proposed Project Buildout (Office Scenario), Including Phase 1**

<b>Buildout Scenario</b>	<b>Net New Employees</b>	<b>Disposal Rate<sup>a</sup> (lbs/capita/day)</b>	<b>Net New Daily Solid Waste Generation (tons)</b>	<b>Net New Annual Solid Waste Generation (tons)<sup>b</sup></b>	<b>Net New Annual<sup>c, d</sup> Solid Waste Generation (cubic yards)</b>
Proposed Project (Office Scenario)	10,745	5	25.7	6,707.7	17,511.5
Phase 1	2,804	5	7.0	1,829.6	4,574.0

Source: California Department of Resources Recycling and Recovery. 2019. Disposal Rate Calculator – South San Francisco. Available: <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator>. Accessed: September 24, 2020.

Notes:

<sup>a</sup> Solid Waste generation rates are based on the 2019 generation rates identified by CalRecycle for the city (5 pounds per capita per day for employees).

<sup>b</sup> Assumes 261 working days per year.

<sup>c</sup> 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. 2018. Calculations: Solid Waste Cleanup Program Weights and Volumes for Project Estimates. Available at <https://www.calrecycle.ca.gov/swfacilities/cdi/tools/calculations>. Accessed October 6, 2020).

<sup>d</sup> Solid waste generation totals in this table do not account for any recycling that would be required by the project applicant as part of applicable regulations.

Key:

lbs/capita/day = pounds per capita per day

lbs = pounds

As displayed in **Table 4.17-9, p. 4.17-50**, under the Office Scenario, the proposed project is estimated to generate 25.7 tons per day, or 6,707.7 tons (17,511.5 cubic yards), of solid waste annually. Of the approximately 6,707.7 tons (17,511.5 cubic yards) of solid waste that would be generated annually under the Office Scenario, approximately 1,829.6 tons (4,574.0 cubic yards) of solid waste would be generated by the Phase 1 site annually. Combined with 2019 city solid waste disposal quantities (52,519 tons, or 131,297.5 cubic yards), this would result in a total combined quantity of approximately 59,226.7 annual tons (or 148,809 cubic yards) of solid waste generated annually citywide under the Office Scenario (including Phase 1), which is an increase of approximately 13 percent compared to current conditions. These solid waste generation rates do not account for any recycling/waste diversion that would be required by the project under applicable regulations.

The Specific Plan area would continue to be served by the South San Francisco Scavenger Company and Blue Line Transfer Inc. The South San Francisco Scavenger Company would transport all solid waste generated at the Specific Plan area to the Blue Line Transfer Facility, which has a permitted capacity of 2,400 tons per day.<sup>71</sup> Any trash remaining after the usable materials have been separated at the Blue Line Transfer Facility are then transported to the Corinda Los Trancos (Ox Mountain) Sanitary Landfill or the Newby Island Sanitary Landfill. The Ox Mountain Sanitary Landfill had a

<sup>71</sup> California Department of Resources Recycling and Recovery. 2020. *Blue Line MRF and TS*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1598?siteID=3259>. Accessed: September 24, 2020.

remaining capacity of approximately 22.18 million cubic yards, and the Newby Island Sanitary Landfill had a remaining capacity of approximately 21.2 million cubic yards.<sup>72, 73</sup> The solid waste generated by the proposed project would represent approximately 0.6 percent of the maximum daily intake allowed at the Ox Mountain Sanitary Landfill, approximately 0.6 percent of the maximum daily intake allowed at the Newby Island Sanitary Landfill, and approximately 1.1 percent of the maximum daily intake allowed at Blue Line Transfer Facility. This represents a small amount in comparison to the total remaining capacities of each landfill. Therefore, the proposed project's estimated solid waste generation could be accommodated by the remaining capacities at the Blue Line Transfer Facility, Ox Mountain Sanitary Landfill, and Newby Island Sanitary Landfill.

Solid waste disposal and recycling in the City is regulated by the Municipal Code, particularly Chapters 8.16 and 8.28. As neither of these chapters establishes quantitative disposal or recycling requirements, the proposed project would not be subject to City-mandated diversion requirements.

Based on the analysis above, the project would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure during operation and would not conflict with solid waste regulations; this impact would be ***less than significant***. No mitigation is required.

## Phase 1

### ***Construction***

For the reasons stated above in the proposed project analysis, construction waste impacts associated with Phase 1 would be ***less than significant***. No mitigation is required.

### ***Operation***

As described above and in **Table 4.17-9, p. 4.17-50**, Phase 1 would generate a total of approximately 7 daily tons, or 1,829.6 annual tons (4,574.0 cubic yards) of solid waste, and would be served by the South San Francisco Scavenger Company and Blue Line Transfer Inc. Combined with 2019 City solid waste disposal quantities (52,519 tons, or 131,297.5 cubic yards), this would result in a total combined quantity of approximately 54,348.6 annual tons (or 135,871.5 cubic yards) of solid waste generated annually citywide under Phase 1, which is an increase of approximately 3.5 percent.

The solid waste generated by Phase 1 would represent approximately 0.2 percent of the maximum daily intake allowed at the Ox Mountain Sanitary Landfill, approximately 0.2 percent of the maximum daily intake allowed at the Newby Island Sanitary Landfill, and approximately 0.3 percent of the maximum daily intake allowed at Blue Line Transfer Facility. This represents a small amount in comparison to the total remaining capacities of each landfill. Therefore, Phase 1's estimated solid waste generation could be accommodated by the remaining capacities at the Blue Line Transfer Facility, Ox Mountain Sanitary Landfill, and Newby Island Sanitary Landfill.

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<sup>72</sup> California Department of Resources Recycling and Recovery. 2020. *Corinda Los Trancos Landfill (Ox Mtn)*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223>. Accessed: September 24, 2020.

<sup>73</sup> California Department of Resources Recycling and Recovery. 2020. *Newby Island Sanitary Landfill*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1362?siteID=3388>. Accessed: September 24, 2020.

Additionally, as described above for the proposed project, solid waste disposal and recycling in the city is regulated by the Municipal Code, particularly Chapters 8.16 and 8.28. As neither of these chapters establishes quantitative disposal or recycling requirements, the proposed project would not be subject to City-mandated diversion requirements. Based on the analysis above, Phase 1 would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure during operation and would not conflict with solid waste regulations; this impact would be ***less than significant***. No mitigation is required.

#### 4.17.4.4 Cumulative Impacts

The cumulative geographic contexts for utilities and service systems are the service territories of the various utility providers. For water, the geographic context is Cal Water's Peninsula Districts' service areas. For wastewater, the geographic context is the Cities of South San Francisco, San Bruno, and Colma, which all flow to the same WQCP. For stormwater, the geographic context is the Colma Creek watershed. For solid waste, the geographic context is the service areas of the Blue Line Transfer Facility, Ox Mountain Sanitary Landfill, and the Newby Island Sanitary Landfill. For electricity, natural gas, and telecommunications, the geographic context is the service areas of PG&E and the various telecommunication providers. Given the size of each area, it is beyond the scope of this EIR to identify every cumulative project within their boundaries.

Over time, growth throughout the City and county will result in increased demand for water, wastewater treatment, solid waste disposal, natural gas, electricity, and telecommunications. As shown in Table 4.12-1 in Section 4.12, *Population and Housing*, of this EIR, ABAG projects the City's population will increase by approximately 8,765, from 67,435 in 2020 to 76,200 in 2030. In addition, ABAG projects the number of jobs in the city will increase by 4,635 between 2020 and 2030. ABAG also projects the County's population will increase by approximately 55,185, from 786,875 in 2020 to 842,060 in 2030, and that the total number of jobs in San Mateo County would increase by 23,730 between 2020 and 2030. Citywide and countywide growth would also generate increased demand for utilities. With regard to local water, wastewater, and storm drain infrastructure, nearby cumulative development is also relevant. The cumulative projects located within approximately 0.5 mile of the project site are described in Section 4.1.6, *Approach to Cumulative Impact Analysis*, of this EIR and shown in **Figure 4.1-1**.

Much of the analysis presented above for Project-specific effects also includes analysis of potential cumulative impacts to utilities and service systems. The Project, in combination with other cumulative development, would result in increased demands on utilities and service systems, as summarized below.

**Impact C-UTIL-1: The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on water infrastructure or water supply. (Project: *Less than Cumulatively Considerable*; Phase 1: *Less than Cumulatively Considerable*)**

The proposed off-site improvements would not generate a demand for water service or potable water. Therefore, this discussion focuses on the potential cumulative impacts on water service and water supply from new development within the Specific Plan area and anticipated cumulative development.

With respect to water infrastructure, the Water Infrastructure Technical Study concludes that all fire flow locations evaluated will meet fire flow requirements under Project buildout conditions, and

that adequate water pressure would be maintained during peak hour conditions. As shown in **Figure 4.1-1** in Section 4.1, *Approach to Environmental Analysis*, none of the cumulative projects are close enough to the proposed project to have the potential to result in cumulative impacts on water infrastructure. However, as a City requirement, all cumulative projects would be required to provide sufficient water infrastructure for their anticipated demand, and comply with all City requirements regarding new water facilities and fire flow requirements. Therefore, cumulative impacts on water infrastructure would not result.

Regarding water supply, the project analysis above (Impact UTIL-2) is inherently cumulative because it is based on demand and supply projections for Cal Water's Peninsula Districts' service areas, including the South San Francisco District, as presented in the 2020 UWMP. For the reasons stated above, a cumulative impact would occur during dry year conditions due to projected supply shortfalls related to implementation of the Bay-Delta Amendment. Implementation of **Mitigation Measure UTIL-1**, which limits the project's demand to 527 AFY consistent with the 2020 UWMP, and **Mitigation Measure UTIL-2**, which requires compliance with Cal Water's WSCP and Water Neutral Development Policy, if adopted, would reduce the project's contribution to the cumulative impact to *less than cumulatively considerable*.

**Impact C-UTIL-2: The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on wastewater infrastructure or wastewater treatment capacity. (Project: Less than Significant; Phase 1: Less than Significant)**

The proposed off-site improvements would not generate a demand for wastewater service or wastewater capacity. Therefore, this discussion focuses on the potential cumulative impacts on wastewater service and wastewater capacity from new development within the Specific Plan area and anticipated cumulative development.

As described in under Impact UTIL-1 above, while the project will increase wastewater/sanitary sewer flows to the public sanitary sewer system, there is sufficient capacity at the WQCP to provide wastewater treatment for the proposed flows from buildout of the Southline Project. The SSMP, which analyzes a 5-year development horizon, evaluates estimated wastewater contributions from cumulative projects. The SSMP determined that a cumulative impact on the City's wastewater infrastructure resulting wastewater contributions from cumulative projects would not result assuming that the necessary sewer upgrades are completed as identified in the SSMP. These sewer upgrades would either be included as part of individual projects or would be completed by the City as part of its capital improvements. Additionally, the project's proposed wastewater system infrastructure improvements implement the recommended improvements in the SSMP, including the upgrading of several public sewer mains that directly serve the Specific Plan area to account for the additional sanitary sewer flow generation. Therefore, a cumulative impact to wastewater infrastructure would not result.

Additionally, as discussed above, the proposed project, inclusive of Phase 1, would generate a net increase of 0.37 MGD of wastewater. Currently, the city generates an average of approximately 8.3 MGD of wastewater which is conveyed to and treated at the WQCP. Therefore, with the additional 0.37 MGD of wastewater that would be generated by the project, the city would convey a total of 8.67 MGD of wastewater to the WQCP for treatment. New planned development in San Bruno, Colma, and citywide would also generate additional wastewater, creating a cumulative increase in demand for wastewater treatment at the WQCP.

The 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 WQCP therefore has sufficient capacity to treat the additional 0.37 MGD of wastewater that would be generated by the project, as well as the additional wastewater that would be generated by the cumulative projects. 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, it is unlikely that additional development within or outside of the city would result in an exceedance of capacity because as a standard condition of approval, the City would require the proponents of each project to provide project-specific sewer capacity studies, and each project would be required to contribute towards the City's sewer capacity charge. Therefore, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative wastewater impact, as wastewater generation would not exceed WQCP treatment system capacity. The cumulative impact would be *less than significant*. No mitigation is required.

**Impact C-UTIL-3: The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on stormwater drainage infrastructure. (Project: Less than Significant; Phase 1: Less than Significant)**

The proposed project and anticipated cumulative development would have the potential to alter stormwater flows from the proposed Specific Plan area and the off-site improvement areas. Therefore, this discussion evaluates impacts on stormwater infrastructure from new development within the entire project site (i.e., Specific Plan area and off-site improvement areas).

The City's Storm Drain Master Plan takes into account anticipated development in the city and is updated at a minimum every 10 years; it was last updated in 2016. Therefore, the Storm Drain Master Plan evaluates stormwater drainage impacts from cumulative projects. The Storm Drain Master Plan determined that a cumulative impact on stormwater drainage flows would not result in the city if the necessary storm drain upgrades are completed. These storm drain upgrades would either be included as part of individual projects or would be completed by the City as part of its capital improvements. Additionally, the project's proposed storm drain system infrastructure improvements implement the recommended improvements in the Storm Drain Master Plan, as discussed under Impact UTIL-1. Therefore, a cumulative impact to stormwater drainage infrastructure would not result.

Additionally, cumulative development within the Colma Creek watershed would likely be constructed on infill sites in highly urbanized areas where there is a substantial amount of existing impervious surface area. All cumulative projects would be required to include post-construction stormwater management features, such as LID measures, to reduce flows to pre-project conditions. New projects would be subject to the requirements of the San Francisco Bay MS4 Permit, the Construction General Permit, and the City's General Plan and Municipal Code related to protecting water resources. Thus, the proposed project, in combination with anticipated cumulative development, would not substantially increase impervious surfaces compared to existing conditions. As discussed under Impact UTIL-1, pervious surfaces would increase under the proposed project, as compared to existing conditions; accordingly, post-construction peak stormwater flows would not increase compared to existing conditions. Similar to the proposed project, the reasonably foreseeable future projects would be required to comply with all BMPs and the City's standard

conditions regarding stormwater drainage and surface runoff detention measures (including Condition No. 13, requiring a plan showing the location of all storm drains and sanitary sewers; Condition No. 23, requiring all parking spaces, driveways, maneuvering aisles, and turn-around areas to be drained and plumbed to the sanitary sewer; and Condition No. 24, requiring on-site stormwater catch basins to be stenciled with the approved San Mateo Countywide Stormwater Logo). For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative stormwater facilities impact. The cumulative impact would be ***less than significant***. No mitigation is required.

**Impact C-UTIL-4: The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on electricity, natural gas, and telecommunication services facilities. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

The proposed off-site improvements would not generate a demand for electricity, natural gas, or telecommunication service facilities. Therefore, this discussion focuses on the potential cumulative impacts on electricity, natural gas, and telecommunication service facilities from new development within the Specific Plan area and anticipated cumulative development.

The cumulative development in the PG&E and telecommunication providers service areas would likely be constructed on infill sites in highly urbanized areas; it is anticipated that these projects would not substantially increase electric power, natural gas, and telecommunications demands. There are also no known capacity limitations within the existing electrical system or gas system. Service providers of these utilities will be able to serve new cumulative development from known and available sources. In addition, similar to the proposed project, the anticipated cumulative development would comply with all applicable City and state water conservation measures, including title 24, part 6, the California Energy Code, with baseline standard requirements for energy efficiency; the 2019 Building Energy Efficiency Standards; and the 2019 CALGreen Code. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative natural gas, electricity, and telecommunications demand and facilities impact. The cumulative impact would be ***less than significant***. No mitigation is required.

**Impact C-UTIL-5: The project, inclusive of Phase 1, together with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on solid waste generation or on failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste. (Project: *Less than Significant*; Phase 1: *Less than Significant*)**

The proposed project would require demolition and construction activities within the proposed Specific Plan area and the off-site improvement areas. Therefore, the construction discussion evaluates construction impacts on solid waste from new development within the entire project site (i.e., Specific Plan area and off-site improvement areas). However, the proposed off-site improvements would not generate solid waste. Therefore, the operational discussion focuses on the potential impacts on solid waste service and landfill capacity from new development within the Specific Plan area.

Construction of the proposed project, as well as construction activities required for cumulative development within the service areas of Blue Line Transfer Facility, Ox Mountain Sanitary Landfill, and

the Newby Island Sanitary Landfill, would generate substantial solid waste, including demolition waste. However, all of these projects would be required to comply with Chapter 15.60 of the South San Francisco Municipal Code, which requires 100 percent of all inert solids (building materials) and 65 percent of non-inert solids (all other materials) to be recycled. Therefore, through compliance with local requirements, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative construction-generated solid waste impact related to solid waste generation or failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste. The cumulative impact would be ***less than significant***. No mitigation is required.

In 2019, residents of the city generated approximately 4.3 pounds of solid waste per capita per day and employees within the city generated 5 pounds of solid waste per capita per day.<sup>74</sup> CalRecycle's 2019 disposal goals for the city were 6.9 pounds per day for residents and 9.0 pounds per day for employees; therefore, the city met its per capita solid waste disposal goals in 2019.<sup>75</sup> The anticipated cumulative development within the service areas of Blue Line Transfer Facility, Ox Mountain Sanitary Landfill, and the Newby Island Sanitary Landfill would incrementally increase the amount of solid waste generated by increasing the number of employees and residents in the service areas; excavation, demolition, and remodeling activities associated with growth would also increase total solid waste generation. However, the Ox Mountain Sanitary Landfill had a remaining capacity of approximately 22.18 million cubic yards, and the Newby Island Sanitary Landfill had a remaining capacity of approximately 21.2 million cubic yards.<sup>76, 77</sup> The proposed project, in combination with anticipated cumulative development, would generate a very small amount of solid waste in comparison to the total remaining capacities of each landfill.

In addition, the increasing rate of diversion citywide and in the service areas, achieved through recycling, composting, and other methods, would decrease the total amount of waste deposited in landfills. The proposed project, in combination with the anticipated cumulative development in the service areas, would not cause a significant impact on regional landfill capacity because the projects would be required to comply with the City's waste reduction and diversion requirements. Compliance with such regulatory requirements would reduce the project's and the cumulative projects' contribution to overall solid waste volumes generated during construction and operation. Given the future long-term capacity available at Ox Mountain Sanitary Landfill, Newby Island Sanitary Landfill, and other area landfills, the proposed project and anticipated cumulative development in the services areas would be served by a landfill with adequate permitted capacity to accommodate their solid waste disposal needs. For these reasons, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative solid waste impact related to solid waste generation or failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste. The cumulative impact would be ***less than significant***. No mitigation is required.

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<sup>74</sup> California Department of Resources Recycling and Recovery. 2019. Disposal Rate Calculator – South San Francisco. Available: <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator>. Accessed: September 24, 2020.

<sup>75</sup> Ibid.

<sup>76</sup> California Department of Resources Recycling and Recovery. 2020. *Corinda Los Trancos Landfill (Ox Mtn)*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223>. Accessed: September 24, 2020.

<sup>77</sup> California Department of Resources Recycling and Recovery. 2020. *Newby Island Sanitary Landfill*. Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1362?siteID=3388>. Accessed: September 24, 2020.

## 4.18 Impacts Found Not to Be Significant

In the course of evaluating the potential impacts of the proposed project with respect to the topics included in Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the proposed project, including the first phase of development under the Specific Plan (Phase 1) and the off-site improvements, was found to have **no impact** with respect to the following environmental topics: Agriculture and Forestry Resources, Mineral Resources, and Wildfire. Therefore, these issues are not discussed in detail in this EIR. Additionally, as further described in Section 4.18.1, below, the proposed project does not require the analysis of impacts related to Aesthetics or vehicular parking.

This section describes the basis for the City of South San Francisco's (City's) determination with regard to each of these topics, pursuant to CEQA Guidelines Section 15128. This section also describes requirements related to the evaluation of aesthetics and parking impacts.

### 4.18.1 Aesthetics and Vehicular Parking Analysis

In accordance with Public Resources Code Section 21099, Modernization of Transportation Analysis for Transit-Oriented Projects, aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects, provided the project meets the following criteria under Public Resources Code Section 21099:

- The project is on an infill site.<sup>1</sup>
- The project is in a Transit Priority area (TPA).<sup>2</sup>
- The project is a residential, mixed-use residential, or employment-center project.<sup>3</sup>

The proposed project meets the above criteria as a qualifying employment-center project for purposes of Public Resources Code Section 21099 and, therefore, aesthetics and vehicular parking are not further analyzed. The Specific Plan area is a qualifying infill site that is currently developed with existing office, industrial, warehouse, and storage facilities. The entire perimeter of the Specific Plan area adjoins urban uses or public rights-of-way. The Metropolitan Transportation Commission (MTC) has identified locations of TPAs within the Bay Area.<sup>4</sup> As shown in Figure 3-6 in Chapter 3, *Project Description*, MTC mapping indicates that the entire project site is within a TPA, due to its proximity to the San Bruno BART station and qualifying SamTrans bus routes. The majority of the proposed Specific Plan area (approximately 26.2 acres) is zoned Business and Professional Office (BPO) under the City's Zoning Code. A small, 0.3-acre area corresponding with an historic rail easement is zoned Parks and Recreation. The proposed project would demolish all existing uses on the Specific Plan area and construct up to approximately 2,800,000 square feet of new office and

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<sup>1</sup> An "infill site" is a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses. (Public Resources Code section 21099(a)(4))

<sup>2</sup> A TPA is an area within 0.5 mile of a major transit stop that is existing or planned. (Public Resources Code section (a)(7))

<sup>3</sup> An "employment center project" is 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 TPA. (Public Resources Code section (a)(1))

<sup>4</sup> MTC. 2017. *Open Data Catalog, Transit Priority Areas*. Available: [https://opendata.mtc.ca.gov/datasets/d97b4f72543a40b2b85d59ac085e01a0\\_0](https://opendata.mtc.ca.gov/datasets/d97b4f72543a40b2b85d59ac085e01a0_0). Accessed: October 7, 2020.

research-and-development (R&D) uses. The proposed floor area ratio (FAR) would range from 1.75 to 2.4. Therefore, the proposed project qualifies as an employment center project.

Because the project meets the three criteria above, this EIR does not consider aesthetics or vehicular parking in determining the significance of impacts under CEQA. However, a discussion of the proposed project's potential to shade adjacent properties is provided below for informational purposes, in response to a comment received on the Notice of Preparation (NOP).

## Shadow

During the NOP scoping period, a comment was received which expressed concern regarding the proposed project's potential shadow impacts on nearby residential areas to the south (see **Appendix 1**). Per Public Resources Code Section 21099 described above, the City is not required to evaluate the alteration of shadow patterns (an aesthetic impact) for CEQA purposes.

Notwithstanding, for informational purposes and in response to this comment, a shadow study was conducted for the proposed project and is included in **Appendix 4.18-1**. A shadow study is a tool that plots the potential reach of project shadow over the course of a year relative to the location of adjacent areas. Shadow studies account for topographical variation and shadows cast by existing buildings. Shadows were modeled at 10:00 a.m., 12:00 p.m., and 3:00 p.m. during the spring equinox (March 21), summer solstice (June 21), fall equinox (September 21), and winter solstice (December 21). Shadows were modeled for the Office Scenario, which would have slightly taller building heights (115 feet above grade) as compared to the Life Sciences Scenario (113 feet above grade).

During each season, the proposed project would cast shadows on commercial and industrial properties, roadways, and rail tracks to the northwest, north, and northeast of the Specific Plan area at various times between the hours of 10:00 a.m. and 3:00 p.m. The shortest shadows would occur during the summer solstice and the longest shadows would occur during the winter solstice. Shadows on the streets, sidewalks, and other surrounding properties would be transitory in nature and would not be expected to exceed levels commonly experienced in urban areas. At no time would the proposed project cast shadows on the residential uses south of Tanforan Avenue in the City of San Bruno.

## 4.18.2 Agriculture and Forestry Resources

**Impact AG-1: The project would not convert designated Farmland under the Farmland Mapping and Monitoring Program, nor would it conflict with any existing agricultural zoning or a Williamson Act contract, nor would it involve any changes to the environment that would result in the conversion of designated Farmland. (Project: No Impact; Phase 1: No Impact)**

### Project

The California Department of Conservation, Division of Land Resource Protection, maps important farmland, including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies the project site as "Urban and

Built-up.”<sup>5</sup> The project site does not contain any designated Farmland. Thus, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. The Specific Plan area is in the Lindenville Planning Sub-Area, which includes a variety of commercial and small business park land uses. The majority of the Specific Plan area (approximately 26.2 acres) is zoned BPO, with a small portion (approximately 0.3 acre) being zoned as Parks and Recreation corresponding with a former railway easement, neither of which permits agricultural use. Thus, the proposed project would not conflict with any agricultural zoning. In addition, no land adjacent to or in the vicinity of the project site is zoned for or used as agriculture. There are no Williamson Act contracts for land within the Lindenville Planning Sub-Area.<sup>6</sup> Thus, the proposed project, would not conflict with a Williamson Act contract or involve other changes in the existing environment, which, due to their location or nature, could result in the conversion of farmland to non-agricultural use. Based on the analysis above, the proposed project would have ***no impact*** on agricultural resources. No mitigation is required.

### Phase 1

The impacts of Phase 1 would be the same as the impacts of the proposed project as a whole because Phase 1 is a component of the project, which would not conflict with a Williamson Act contract or involve other changes in the existing environment, or result in the conversion of farmland to non-agricultural use. Phase 1 would have ***no impact*** related to agricultural resources. No mitigation is required.

**Impact AG-2: The project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]). (Project: No Impact; Phase 1: No Impact)**

### Project

There is no timberland or timberland zoned Timberland Production on the project site.<sup>7</sup> None of the trees currently growing on or adjacent to the project site are managed for a public benefit, and therefore the project site is not “forestland.”<sup>8</sup> Thus, the proposed project would not result in the loss of forest land or the conversion of forest land to non-forest use. As mentioned above, the Specific Plan area is in the Lindenville Planning Sub-Area. The majority of the Specific Plan area is zoned BPO (approximately 26.2 acres), and a small portion is zoned Parks and Recreation (approximately 0.3

<sup>5</sup> Urban and Built-up land is defined as land with a building density of at least one unit to 1.5 acres or six structures per 10 acres on the 2018 San Mateo County Important Farmland map as well as land used for residential, industrial, and commercial purposes; institutional facilities; cemeteries; airports; golf courses; sanitary landfills; sewage treatment; and water control structures.

<sup>6</sup> The Williamson Act is a California law enacted in 1965 that provides property tax relief to owners of farmland and open space land in exchange for a 10-year agreement that the land will not be developed or converted into another use.

<sup>7</sup> According to Public Resources Code Section 4526 and California Government Code Section 51104(g), “timberland” is defined as land, other than that owned by the federal government or designated by the State Board of Forestry and Fire Protection as Experimental Forestland, that is available for and capable of growing a crop of trees of any commercial species to produce lumber and other forest products, including Christmas trees.

<sup>8</sup> According to Public Resources Code Section 12220(g), “forestland” is land that can support a 10 percent native tree cover of any species, including hardwoods, under natural conditions and allow management of one or more forest resources, including resources with timber, aesthetic, fish and wildlife, biodiversity, water quality, recreational, or other public benefits.

acre) corresponding with a former railway easement. No portion of the project site includes forest land, timber land, or timberland zoned Timberland Production. In addition, no land adjacent to or in the vicinity of the project site is zoned for or used for timberland or forestland. Thus, the proposed project would not conflict with any existing zoning or forestland or timberland use or involve any changes to the environment that could result in the conversion of forestland or timberland. Thus, there would be **no impact** with respect to forest land or timberland. No mitigation is required.

### Phase 1

The impacts of Phase 1 would be the same as the impacts of the proposed project as a whole because Phase 1 is a component of the project, which would not conflict with any existing zoning or forestland or timberland uses or involve any changes to the environment which would result in the conversion of forestland or timberland. Phase 1 would have **no impact** related to forest resources. No mitigation is required.

## 4.18.3 Mineral Resources

**Impact MIN-1: The project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state and/or a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan. (Project: No Impact; Phase 1: No Impact)**

### Project

The project site is in an area that has been zoned by the state as Mineral Resource Zone 1 (MRZ-1), an area where no significant mineral deposits are present and little likelihood exists for their presence.<sup>9</sup> The area surrounding the project site is not known to support significant mineral resources of any type, and no mineral resources are currently being extracted in the area. The list of mines from the Office of Mine Reclamation (the Assembly Bill [AB] 3098 List), which lists mines that are regulated under the Surface Mining and Reclamation Act, does not include any mines that are within the area of the project site.<sup>10</sup> In addition, the project site has not been designated as a locally important mineral resource recovery site in the General Plan, any specific plan, or other land use plan. Therefore, the project would have **no impact** on the loss of availability of a known statewide or regionally important mineral resource, or a locally important mineral resource recovery site. No mitigation is required.

### Phase 1

The impacts of Phase 1 would be the same as the impacts of the project as a whole because Phase 1 is a component of the proposed project, which would not result in any impacts on the loss of availability of a known statewide or regionally important mineral resource, or a locally important mineral resource recovery site. Phase 1 would have **no impact** related to mineral resources. No mitigation is required.

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<sup>9</sup> California Division of Mines and Geology. 1996. *Open File Report 96-03—Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region*. Available: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR\\_96-03/OFR\\_96-03\\_Text.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_96-03/OFR_96-03_Text.pdf). Accessed: October 8, 2020.

<sup>10</sup> California Department of Conservation. 2020. *AB 3098 List*. Available: <https://www.conservation.ca.gov/dmr/smara-mines>. Accessed: October 8, 2020.

## 4.18.4 Wildfire

**Impact WF-1: The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and would not: a) substantially impair an adopted emergency response plan or emergency evacuation plan; b) exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; c) require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or d) expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Project: No Impact; Phase 1: No Impact*)**

### Project

The project site is located in a developed, urban environment. The topography of the project site and surrounding area is relatively flat. There is no wildland vegetation cover on the project site or in the surrounding area. According to CAL FIRE, the entire City, including the project site, is in a non-Very High Fire Hazard Severity Zone (VHFHSZ).<sup>11</sup> The nearest VHFHSZ is approximately 3.5 miles southwest of the project site, near the City of Millbrae. In addition, there are no mapped State Responsibility Areas (SRA) in the City.<sup>12</sup> The nearest SRA, San Bruno Mountain State and County Park, is approximately 2 miles north of the project site. Therefore, there would be **no impact** with respect to exacerbating wildfire risks. No mitigation is required.

### Phase 1

The impacts of Phase 1 would be the same as the impacts of the project as a whole because Phase 1 is a component of the proposed project. Phase 1 would have **no impact** related to exacerbating wildfire risks. No mitigation is required.

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<sup>11</sup> California Department of Forestry and Fire Protection. 2007. *San Mateo County Fire Hazard Severity Zones in SRA*. Available: <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>. Accessed: October 8, 2020.

<sup>12</sup> Ibid.

## 5.1 Introduction

This chapter evaluates alternatives to the proposed project and examines the potential environmental impacts associated with each alternative. By comparing these alternatives to the proposed project, the relative environmental advantages and disadvantages of each may be analyzed and weighed. California Environmental Quality Act (CEQA) Guidelines Section 15126.6(a) states that an environmental impact report (EIR) must describe and evaluate a reasonable range of alternatives to the proposed project that would feasibly attain most of the proposed project's basic objectives identified in Chapter 3, *Project Description*, but would avoid or substantially lessen any identified significant adverse environmental impacts of the proposed project identified in Chapter 4, *Environmental Setting, Impacts, and Mitigation*.

Nine alternatives to the project were considered, including the required No Project Alternative. To determine which of the alternatives should be evaluated in this EIR, each alternative was screened to determine whether it would meet most of the objectives of the project, reduce any of the significant impacts identified in the EIR, and be potentially feasible.

This chapter provides a description of the six alternatives considered but rejected, followed by an analysis of the No Project Alternative (Alternative A) and two additional alternatives selected for evaluation: the No Intersection Alternative (Alternative B) and the Reduced Project Alternative (Alternative C). This chapter concludes with a matrix comparing the project to all three alternatives analyzed in this chapter and a discussion of the "environmentally superior" alternative.

### 5.1.1 Requirements for Alternatives Analysis

The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those potentially feasible alternatives necessary to foster informed public participation and an informed and reasoned choice by the decision-making body (per CEQA Guidelines Section 15126.6(f)). Therefore, an EIR does not need to address every conceivable alternative or consider infeasible alternatives. CEQA Guidelines Section 15364 generally defines "feasible" to mean the ability to be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors. CEQA Guidelines Section 15126.6(f)(1) lists the following factors that may be considered when determining the feasibility of alternatives to be evaluated:

- Site suitability
- Economic viability
- Availability of infrastructure
- General plan consistency
- Other plans or regulatory limitations
- Jurisdictional boundaries

- Ability of the project's proponent to attain site control (per CEQA Guidelines section 15126.6(f)(1))

An EIR does not need to consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (per CEQA Guidelines Section 15126.6(f)(3)).

## 5.1.2 Project Objectives

Pursuant to CEQA Guidelines Section 15124(b), the EIR must include a statement of objectives, including the underlying purpose of the project. Refer to Section 3.5 in Chapter 3, *Project Description*, of this EIR for a list of project objectives that have been identified by the project applicant.

## 5.1.3 Significant and Unavoidable Impacts

A central purpose of the discussion of alternatives is to determine whether there are potentially feasible alternatives that could avoid or substantially lessen the significant impacts of the proposed project. Based on the analysis in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR, the project would have the following significant and unavoidable impacts related to air quality, noise, and transportation and circulation (an asterisk denotes that the impact would also be significant and unavoidable for Phase 1): Impact AQ-2a, Impact AQ-2b,\* Impact AQ-3, Impact C-AQ-2,\* Impact C-AQ-3, Impact NOI-1a,\* Impact C-NOI-1,\* Impact TR-3d, and Impact C-TR-3d. These impacts are summarized below.

### Air Quality

**Impact AQ-2a: Construction of future Precise Plans under the Specific Plan, not including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal (ozone) or state (ozone and particulate matter [PM]) ambient air quality standard during construction. (Project: Significant and Unavoidable; Phase 1: Less than Significant with Mitigation)**

**Project:** Construction associated with the new developments that would be permitted under future Precise Plans approved under the proposed Specific Plan (not including Phase 1, which was evaluated separately and found to have a less-than-significant impact) would result in the temporary generation of criteria pollutants (ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>) that could exceed BAAQMD's daily project-level pollutant thresholds. While impacts would be reduced with implementation of Mitigation Measures AQ-1 through AQ-5, emissions of criteria pollutants may not be reduced to levels below BAAQMD's thresholds. In cases where emissions continue to exceed applicable threshold levels after implementation of Mitigation Measures AQ-1 through AQ-5, Mitigation Measure AQ-6 would be required, which requires applicants of future Precise Plans (not including Phase 1) to track all land use development construction activities occurring under the Specific Plan, assess and determine total emissions for all concurrent construction activities (subject to City of South San Francisco [City] review and approval), and coordinate with a third-party or governmental entity to determine the mitigation fees for each development project's applicant to pay on a pro rata basis to offset pollutant emissions, thereby ensuring that BAAQMD's daily pollutant thresholds would not be exceeded. Based on recent experience regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume

that offset programs will be available in the future and that emissions associated with development under future Precise Plans can be reduced to levels below threshold levels. Should offset programs be available for this future development, then project impacts on air quality related to construction 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, the construction air quality impacts of future Precise Plans, including health impacts from construction emissions, are conservatively assumed to be significant and unavoidable.

**Phase 1:** Phase 1 was evaluated separately and found to have a less-than-significant impact with mitigation.

**Impact AQ-2b: Operation of the Specific Plan, including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard during operation. (Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable)**

**Project:** The Specific Plan includes numerous sustainability design features and objectives to reduce operational emissions, operation of projects developed under the Specific Plan would generate criteria pollutant emissions from area, energy, mobile, and stationary sources that could exceed BAAQMD's daily pollutant thresholds. Through implementation of Mitigation Measure AQ-7, applicants of Precise Plans proposing development that exceeds BAAQMD screening criteria would be required to estimate total emissions for operational activities and pay mitigation fees for any operational emissions that exceed BAAQMD's daily pollutant thresholds. Offsetting emissions to a level below BAAQMD's threshold levels would ensure that development under the Specific Plan would not contribute a significant level of air pollution such that regional air quality within the San Francisco Bay Area Air Basin (SFBAAB) would be degraded. Based on recent precedent regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and that emissions can be reduced to levels below threshold levels. 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 under the Specific Plan, for the purposes of this EIR analysis, operational air quality impacts for the project, including health impacts from operational emissions, are conservatively assumed to be significant and unavoidable.

**Phase 1:** Operation of Phase 1 would generate ROG and/or NO<sub>x</sub> emissions in excess of BAAQMD thresholds during days on which emergency generator testing would occur. Mitigation Measure AQ-8 limits generator testing to one generator per day. However, even with implementation of Mitigation Measure AQ-8, operation of Phase 1 would still result in criteria pollutant emissions that would exceed BAAQMD's project-level thresholds. Through implementation of Mitigation Measure AQ-7, the Phase 1 applicant would pay mitigation fees to offset pollutant emissions, thereby ensuring that BAAQMD's daily pollutant thresholds would not be exceeded. Offsetting emissions to a level below BAAQMD's threshold levels would ensure that future emissions from Phase 1 would not contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Based on recent precedent regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future, and that Phase 1 emissions can be reduced to levels below threshold levels. However, because it cannot be concluded that offset programs would always be available in the future at the time and in

the amount needed to mitigate Phase 1's annual emissions, for the purposes of this EIR analysis, operational air quality impacts of Phase 1 are conservatively assumed to be significant and unavoidable.

**Impact AQ-3: Operation of future Precise Plans under the Specific Plan, not including Phase 1, could expose sensitive receptors to substantial pollutant concentrations. (*Project: Significant and Unavoidable; Phase 1: Less than Significant with Mitigation*)**

**Project:** The project would generate localized criteria pollutants of fugitive dust and CO. During grading and excavation activities associated with construction, localized fugitive dust would be generated. Because BAAQMD's Basic Construction Mitigation Measures would be implemented, per Mitigation Measure AQ-1, construction-related fugitive dust emissions would be less than significant with mitigation and would not expose receptors to substantial pollutant concentrations or risks.

CO impacts were analyzed at the intersection of San Bruno Avenue/El Camino Real, with project CO concentrations summed with background CO levels and compared against the CAAQS and NAAQS. CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient state or federal air quality standards. Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO. Therefore, this impact would be less than significant for the project.

The project would generate toxic air contaminants (TACs) during construction and operation. Specifically, construction activities would generate diesel particulate matter (DPM) and PM<sub>2.5</sub> that could expose adjacent sensitive receptors to health risks in excess of applicable thresholds. Depending on the construction schedule and proximity to receptors, there may be instances where DPM emissions could result in cancer or non-cancer health risks that would exceed BAAQMD thresholds, resulting in a significant impact. The potentially significant impact from the exposure of receptors to DPM during project construction activities would be reduced by Mitigation Measures AQ-1 through AQ-4 and AQ-6, which would reduce fugitive dust through construction BMPs, reduce DPM through Tier 4 engines and model year 2010 engines in clean diesel trucks, and offset any remaining emissions to below BAAQMD thresholds through the purchase of mitigation credits. However, emissions generated by construction activities could still expose receptors to cancer and non-cancer risks in excess of BAAQMD significance thresholds during construction. Mitigation Measure AQ-9 would be required to provide a project-level evaluation of health risks from future projects.

During operation, in the Life Sciences Scenario R&D buildings could involve research activity in wet laboratories and/or require process boilers. The wet laboratories could result in reactive organic gas (ROG) emissions from solvents and chemicals specific to the type of research being conducted (e.g., chemistry, chemical engineering, biological sciences, physical sciences). Similarly, the process could result in ROG emissions of ROG and its constituent gases. Additionally, diesel-fueled generators could expose receptors to PM<sub>2.5</sub> concentrations in excess of BAAQMD significance thresholds during operations. At this time, definitive conclusions regarding localized health risks from future phases cannot be made (Phase 1 was evaluated separately and found to have a less-than-significant impact with mitigation). Pursuant to Mitigation Measure AQ-9, applicants proposing development of future phases within 1,000 feet of existing sensitive receptors, as defined by BAAQMD (e.g., residential), are required to prepare site-specific construction and operational health risk assessments (HRAs). However, this mitigation measure does not ensure that the evaluations would find less-than-significant impacts. Therefore, it is possible that mitigation to address future

project health risks and pollutant concentrations may be inadequate with respect to reducing impacts to levels below BAAQMD thresholds. This impact would be significant and unavoidable.

**Phase 1:** Phase 1 was evaluated separately and found to have a less-than-significant impact with mitigation.

**Impact C-AQ-2: Construction and operation under the Specific Plan, inclusive of Phase 1, together with the cumulative projects identified, could result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a non-attainment area under an applicable federal or state ambient air quality standard. (Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable)**

**Project and Phase 1:** As discussed under Impact AQ-2a, construction emissions resulting from individual future Precise Plan projects developed under the Specific Plan, not including Phase 1, could exceed BAAQMD's regional ROG, NO<sub>x</sub>, and PM thresholds. Similarly, as discussed under Impact AQ-2b, long-term operation of individual projects developed under the Specific Plan, including Phase 1, 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, cumulative operational air quality impacts are conservatively assumed to be significant and unavoidable. Both Phase 1 and the project would result in a cumulatively considerable contribution.

**Impact C-AQ-3: Construction and operation of future Precise Plans under the Specific Plan, not including Phase 1, together with cumulative project identified, could expose sensitive receptors to substantial pollutant concentrations. (Project: Significant and Unavoidable; Phase 1: Less than Cumulatively Considerable)**

**Project:** As stated in Impact C-AQ-2, a significant cumulative impact to the region's existing air quality conditions would occur, which could result in adverse health impacts on sensitive receptors. Therefore, cumulative health impacts are conservatively assumed to be significant and unavoidable. The project would result in a cumulatively considerable contribution.

**Phase 1:** Phase 1, which was evaluated separately and found to have a less-than-significant impact with mitigation, would not have a cumulatively considerable contribution.

## Noise

**Impact NOI-1a: Project construction would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. (Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable)**

**Project:** Project construction activities would generate noise at nearby sensitive receptors (i.e., residential and hotel uses). Most construction activities under the project are expected to occur during standard daytime hours for construction, as defined by the South San Francisco and San Bruno Municipal Codes. However, a limited amount of project construction could be necessary outside these daytime hours. Based on modeled noise levels, construction noise from concrete pours and other noise-generating construction activities that would occur outside of daytime hours during Phase 1 would exceed applicable criteria for both the cities of South San Francisco and San

Bruno at the residential receptors along Tanforan Avenue. Mitigation Measure NOI-1a, which includes measures to reduce noise from construction activity during all hours (including non-daytime hours) and Mitigation Measure NOI-1b, which includes installation of a temporary noise barrier along the complete length of Tanforan Avenue near the project site, would be implemented to reduce the project's significant impact related to non-daytime construction noise. While these mitigation measures would reduce construction noise effects, it may not be possible to reduce noise levels during all non-daytime construction activities to less-than-significant levels. For example, locating equipment as far as possible from noise-sensitive uses and using equipment with mufflers and sound control devices would reduce noise, but may not reduce noise to below significance criteria. Therefore, this impact is significant and unavoidable.

**Phase 1:** The construction activities that would be closest to sensitive receptors (i.e., the residential uses fronting Tanforan Avenue) would occur during Phase 1. Because construction impact determinations are based on reasonable worst-case construction noise levels at the nearest sensitive uses, Phase 1 construction activities are the focus of the project construction noise and analysis. Therefore, for the reasons stated above in the project analysis summary, construction noise impacts during Phase 1 would be significant and unavoidable even with implementation of Mitigation Measures NOI-1a and NOI-1b.

**Impact C-NOI-1: The project, inclusive of Phase 1, together with the cumulative projects identified, could 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 the local general plan or noise ordinance or applicable standards of other agencies. (Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable)**

**Project:** As described under Impact NOI-1a, project construction would occur mostly during the standard daytime hours for construction, as defined by the South San Francisco and San Bruno Municipal Codes. Similarly, construction for cumulative projects would very likely occur primarily during daytime hours. During these hours, construction noise restrictions are less stringent, and nearby receptors are considered less sensitive to noise. However, some nighttime construction is proposed for the project during Phase 1, including concrete pours, as well as early-morning construction, which may commence prior to the start of "daytime" hours defined by the City of South San Francisco. It is possible that future cumulative projects may also propose construction activities outside standard daytime hours. Should construction of these projects occur concurrently with the proposed project, residential receptors along Tanforan Avenue could be exposed to construction noise during non-exempt hours from both the proposed project and these cumulative projects. While implementation of Mitigation Measure NOI-1a, which includes measures to reduce noise from construction activity during all hours (including non-daytime hours) and Mitigation Measure NOI-1b, which includes installation of a temporary noise barrier along the complete length of Tanforan Avenue near the project site, would be implemented to reduce the project's contribution to cumulative noise levels, it may not be possible to reduce noise levels during all non-daytime construction activities to less-than-significant levels. Therefore, cumulative construction noise impacts would be significant and unavoidable.

**Phase 1:** The construction activities that would be closest to sensitive receptors (i.e., the residential uses fronting Tanforan Avenue) would occur during Phase 1. Because construction impact determinations are based on reasonable worst-case construction noise levels at the nearest sensitive uses, Phase 1 construction activities are the focus of the project construction noise and analysis. Therefore, for the reasons stated above in the project analysis summary, cumulative

construction noise impacts during Phase 1 would be significant and unavoidable even with implementation of Mitigation Measure NOI-1a and Mitigation measure NOI-1b.

## Transportation & Circulation

**Impact TR-3d: The project would contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants. (Project: Significant and Unavoidable; Phase 1: Less than Significant)**

**Project:** As analyzed in Section 4.15, *Transportation and Circulation*, the Huntington Avenue/Herman Street/Forest Lane intersection meets the peak-hour signal warrant under no-project and with-project conditions during the PM peak hour. Phase 1 of the project would add approximately 11 trips to the intersection during the PM peak hour, which is unlikely to change intersection operations materially or exacerbate the risk of collisions relative to 2024 Baseline conditions. However, the project would add approximately 301 PM peak-hour trips, which would affect intersection operations more substantially. The addition of project-related trips may exacerbate the risk of collision at this multi-lane, stop-controlled intersection, which experienced eight reported injury collisions between 2014 and 2019. Therefore, the project would result in a significant impact. Installation of a traffic signal at the Huntington Avenue/Herman Street/Forest Avenue intersection, located in the City of San Bruno, would reduce project impacts to a less-than-significant level. Accordingly, the project's contribution to the impact could be fully mitigated by paying a fair-share contribution toward installation of a traffic signal at this intersection. However, this traffic signal is not presently included in a capital improvement or fee program adopted by the City of San Bruno, and therefore, the City of San Bruno does not have a mechanism for funding this mitigation and cannot ensure this mitigation will be implemented. Additionally, the City of South San Francisco, as lead agency, does not have authority to require completion of this mitigation in the City of San Bruno. There are no other feasible mitigation measures available. The potentially hazardous condition results from a lack of signal control at the intersection; consequently, there are no physical changes (such as modifying lane configurations) or operational changes (such as modifying stop controls) that would address the impact. Therefore, the impact would be significant and unavoidable for the project.

**Phase 1:** Phase 1 was evaluated separately and found to have a less-than-significant impact with no mitigation required.

**Impact C-TR-3d: The project, together with the cumulative projects identified would contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants. (Project: Significant and Unavoidable; Phase 1: Less than Significant)**

**Project:** As explained in Impact TR-3d above, the project would result in a significant impact due to the addition of approximately 301 PM peak-hour trips to Huntington Avenue/ Herman Street/Forest Avenue intersection, which would contribute to existing hazardous conditions at the intersection. Therefore, this cumulative impact would be significant and unavoidable, and the project's contribution would be cumulatively considerable.

**Phase 1:** Phase 1 was evaluated separately and found to have a less-than-significant impact with no mitigation required. Therefore, Phase 1's contribution would not be cumulatively considerable.

## 5.2 Significant Impacts that can be Mitigated to Less-than-Significant Levels

As stated above, a focus of the discussion of alternatives is to determine whether there are potentially feasible alternatives that could avoid or substantially lessen the significant impacts of the proposed project. This can include significant impacts for which mitigation measures have been identified to reduce the severity of project impacts to less than significant.

As discussed throughout Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR and summarized in Table 2-1, *Summary of Impacts and Mitigation*, in Chapter 2, *Executive Summary*, the project would result in potentially significant impacts related to the following resources, which can be reduced to a less-than-significant level with mitigation:

- Biological resources (nesting birds, bats, lighting impacts on birds, and bird strike)
- Cultural resources (historic resources, archaeological resources, and human remains)
- Energy
- Geology and soils (paleontological resources)
- Greenhouse gas emissions
- Hazards and hazardous materials (risk of upset or accident from subsurface contaminants, building hazards, and hazardous materials sites)
- Hydrology and water quality (groundwater quality)
- Noise (stationary equipment noise)
- Tribal cultural resources
- Utilities and service systems (water supply)

Phase 1 would result in potentially significant impacts related to the following resources, which can be reduced to a less-than-significant level with mitigation:

- Air quality (construction criteria pollutants, pollutant concentrations)
- Biological resources (nesting birds, bats, lighting impacts on birds, and bird strike)
- Cultural resources (historic resources, archaeological resources, and human remains)
- Energy
- Geology and soils (paleontological resources)
- Greenhouse gas emissions
- Hazards and hazardous materials (risk of upset or accident from subsurface contaminants, building hazards, and hazardous materials sites)
- Hydrology and water quality (groundwater quality)
- Noise (stationary equipment noise)
- Tribal cultural resources
- Utilities and service systems (water supply)

Refer to Table 2-1 in Chapter 2, *Executive Summary*, for additional discussion of these impacts.

## 5.3 Alternatives Considered but Rejected

Section 15126.6(c) of the CEQA Guidelines provides that an EIR should “identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency’s determination.” The screening process for identifying the viable EIR alternatives included consideration of the following criteria.

- Ability to meet the project objectives
- Potential ability to substantially lessen or avoid environmental effects associated with the proposed project
- Potential feasibility, taking into account economic, environmental, social, technological, and legal factors

The discussion below describes the alternatives that were considered during preparation and scoping of this EIR, and gives the rationale for eliminating these alternatives from detailed consideration, including because they would not fulfill most of the basic objectives of the project, would not avoid or substantially lessen significant environmental impacts, and/or would be infeasible. Because the project evaluated in this EIR is buildout under the Specific Plan, inclusive of Phase 1, the City considered alternatives to the overall project, including alternatives with different Phase 1 characteristics that could reduce or avoid impacts specific to Phase 1.

### 5.3.1 Phase 1-Only Alternative

An alternative that would develop Phase 1 without any future phases of development was considered. This alternative would develop all of the Phase 1 components in the same manner as the project, with the exception of Parking Structure C, which would be reduced in size due to a reduced overall demand for parking associated with the project. This alternative includes development of the new Southline Avenue, and the remainder of the off-site improvements except for the street widening and streetfront improvements on South Maple Avenue, and upsizing sewer mains on the northerly portion of South Maple Avenue which are included in the future phases development. The alternative would result in approximately 612,715 square feet of office/R&D space and approximately 88,000 square feet of amenities space. The Phase 1-Only Alternative would avoid the project’s significant and unavoidable impacts associated with the emission of criteria air pollutants during construction (Impact AQ-2a), construction and operational health risks on sensitive receptors (Impact AQ-3), and hazardous conditions at the Huntington Avenue/Herman Street/Forest Lane intersection (Impact TR-3d). The Phase 1-Only Alternative would also reduce the project’s contribution to significant cumulative impacts with respect to those topics (Impacts C-AQ-2, C-AQ-3, and C-TR-3d) to a less-than-cumulatively considerable level.

The Phase 1-Only Alternative would not develop an integrated commercial campus, and as such, would not meet the underlying purpose of the project to create a state-of-the-art, transit-oriented commercial campus, including professional offices, R&D (including life science) uses, and supporting amenities (e.g., retail, fitness, restaurants, etc.) in proximity to BART and Caltrain stations. The Phase 1-Only Alternative also would not meet a number of the project objectives, including to: create a commercial campus development consistent with the General Plan designation for the

Specific Plan area; establish a commercial campus development with sophisticated, unified architectural and landscape design and site planning, resulting in a distinctive campus identity and strong sense of place; establish flexibility to build the proposed project in phases that respond to market conditions; and redevelop underutilized parcels within the Specific Plan area to realize the highest and best use of the land by increasing the intensity of the land uses. Therefore, the Phase 1-Only Alternative was rejected from further consideration due to its inability to meet the project objectives. Additionally, the Phase 1-Only Alternative may not be economically viable, as the off-site infrastructure and transportation improvements would remain the same as with the project, but with significantly less tenanted space across which the costs could be allocated and absorbed.

### 5.3.2 Future Phases-Only Alternative

An alternative that would only develop the future phases of the Specific Plan, not including Phase 1, was considered. This alternative would develop all of the buildings and open spaces north of the Phase 1 site in the same manner as the project, with the exception of Parking Structure C, which would be reduced in size due to a reduced demand for parking. The alternative would result in approximately 2.1 million square feet of office/R&D space under a maximum development scenario, but would not include any of the amenity uses proposed as part of Phase 1 of the proposed project. This alternative would not develop the new Southline Avenue, and the only off-site improvements constructed would be the street widening and streetfront and utility improvements along South Maple Avenue. The Future Phases-Only Alternative was considered for its potential to reduce or avoid the significant and unavoidable impacts associated with Phase 1, including the emission of criteria air pollutants during Phase 1 operation (Impact AQ-2b) and construction noise impacts during Phase 1 construction (Impact NOI-1a). Certain significant and unavoidable impacts associated with Phase 1 could still occur during construction or operation of future phases, although air quality and noise impacts would be reduced for sensitive receptors along Tanforan Avenue due to the future phases being sited at a greater distance from those receptors.

Similar to the Phase 1-Only Alternative, the Future Phases-Only Alternative would not develop an integrated commercial campus, and as such, would not meet the underlying purpose of the project to create a state-of-the-art, transit-oriented commercial campus, including professional offices, R&D (including life science) uses, and supporting amenities (e.g., retail, fitness, restaurants, etc.) in proximity to BART and Caltrain stations. The Future Phases-Only Alternative also would not meet a number of the project objectives, including to: create a commercial campus development consistent with the General Plan designation for the Specific Plan area; establish a commercial campus development with sophisticated, unified architectural and landscape design and site planning, resulting in a distinctive campus identity and strong sense of place; establish flexibility to build the proposed project in phases that respond to market conditions; and redevelop underutilized parcels within the Specific Plan area to realize the highest and best use of the land by increasing the intensity of the land uses.

In addition, the Future-Phases Only Alternative would not construct the signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue, the proposed Southline Avenue, or the circulation improvements along Huntington Avenue intended to improve connectivity to the San Bruno BART station. Therefore, the Future Phases-Only Alternative would not meet the following objectives of the project: promote alternatives to automobile transportation to further the City's transportation objectives by emphasizing public transit linkages, TDM, and pedestrian access and ease of movement between buildings; create convenient and safe pedestrian and bike access

from the Specific Plan area to the San Bruno BART station and the Centennial Way Trail; construct a new east–west public street through the Specific Plan area to improve site access and regional roadway circulation, in furtherance of City General Plan policies; and enhance vehicular, bicycle, and pedestrian circulation and access in the area surrounding the Specific Plan area. Therefore, the Future-Phases Only Alternative was rejected from further consideration due to its inability to meet the project objectives.

### 5.3.3 Reconfigured Project Alternative

The Reconfigured Project Alternative would reconfigure new office/R&D uses and potential toxic air contaminant (sources (e.g., emergency generators, boilers, and construction activity, generally) by concentrating new development in the northern portion of the Specific Plan area, farther from the sensitive residential receptors to the south. The alternative would result in approximately 840,000 square feet of office/R&D space but no amenity space since the corner of Southline and Huntington Avenues would not be developed. This alternative would not develop the new Southline Avenue, and the only off-site improvements constructed would be the street widening and streetfront and utility improvements along South Maple Avenue. This alternative was considered for its potential to reduce or avoid the project's construction and operational health risks on sensitive receptors (Impact AQ-3), and construction noise impacts during Phase 1 construction (Impact NOI-1a). The Reconfigured Project Alternative would also reduce and potentially avoid the project's contribution to significant cumulative impacts with respect to those topics (Impacts C-AQ-3 and C-NOI-1).

The longest distance between the residential uses to the south and the Specific Plan area's farthest boundary is approximately 1,700 feet (as measured from the residence at the corner of Tanforan Avenue and Huntington Avenue East to the northern tip of the Specific Plan area). Maintaining a setback of 1,000 feet or more from off-site receptors would greatly reduce the portion of the Specific Plan area available for project buildings, by approximately 70 percent. Therefore, there is no feasible setback that would allow for the proposed uses to be developed at such a distance without exceeding Federal Aviation Administration (FAA) height restrictions (100 to 150 feet above ground level) and/or substantially reducing the project's size to the extent where the project objectives are no longer met. Therefore, this alternative was rejected based on its infeasibility and inability to meet the basic project objectives.

### 5.3.4 Residential Alternative

Residential uses typically generate fewer vehicle trips than commercial uses, on a per-square foot basis, and do not include diesel-fueled emergency generators or boilers that would be utilized by the project. Accordingly, an alternative that would develop all residential uses at the Specific Plan area was considered based on its potential to reduce or avoid the project's significant impacts related to criteria air pollutant emissions during operation (Impact AQ-2b), operational health risks at sensitive receptors (Impact AQ-3), and hazardous conditions at the Huntington Avenue/Herman Street/Forest Lane intersection (Impact TR-3d). The Residential Alternative would also reduce and potentially avoid the project's contribution to significant cumulative impacts with respect to those topics (Impacts C-AQ-2, C-AQ-3, and C-TR-3d). Approximately 2,300 residential units would be constructed under the Residential Alternative. Residential uses would only be developed in the 2012 SFO Airport Land Use Compatibility Plan (ALUCP)'s 65 decibel (dB) noise contour (approximately half of the Specific Plan area in the northern/eastern portion) because according to the ALUCP, residential uses are incompatible uses in the 70 dB noise contour (approximately half of the Specific

Plan area in the southern/western portion ). This assumes high-density development at approximately 180 units/acre, consistent with the density the City applies in the Downtown Transit Core district, which is similarly transit-oriented.<sup>1</sup> The portion of the Specific Plan area in the 70 dB noise contour would be developed with private open space to serve the residential uses. Refer to **Figure 4.10-3** in Section 4.10, *Noise and Vibration*, of this EIR for a map of the noise contour zones that cross the Specific Plan area.

Residential development is not consistent with the Specific Plan area's current General Plan land use designation (Office) or zoning district (Business and Professional Office),<sup>2</sup> which are intended to provide for administrative, financial, business, professional, medical, and public offices in locations proximate to BART or Caltrain stations. The City's pending General Plan Update, *Shape SSF 2040 General Plan*, has proposed to maintain the existing land use designation for the Specific Plan area in the preferred alternative (although would rename it as Business and Professional Office), which would ultimately serve as the basis for the updated Land Use Element.<sup>3</sup> Although residential uses in San Bruno are located to the south, the Specific Plan Area generally is not well suited for residential development as the Specific Plan area is an existing industrial site that is surrounded by commercial, industrial, and warehouse facilities to the north and east. In addition, it is likely that under the Residential Alternative, additional studies, remediation, or mitigation measures beyond what have been currently completed or proposed in Chapter 4.8, *Hazards and Hazardous Materials*, would be required to prevent the release of or exposure to potentially contaminated on-site soil and/or groundwater that would enable the development of residential uses. Furthermore, a residential alternative would be inconsistent with virtually all of the project objectives. Therefore, this alternative was rejected based on its infeasibility and inability to meet the basic project objectives.

### 5.3.5 Mixed-Use Alternative (Residential, Office, and R&D)

A residential-only alternative was determined to be inconsistent with virtually all of the project objectives; therefore, a mixed-use residential, office, and R&D alternative was considered. As stated above, residential uses typically generate fewer vehicle trips than commercial uses and do not include diesel-fueled emergency generators or boilers that would be utilized by the project. This alternative would develop residential uses in the ALUCP's 65 dB noise contour (northern/eastern portion of the Specific Plan area) because according to the ALUCP, residential uses are incompatible uses in the 70 dB noise contour (southern/western portion of the Specific Plan area). Approximately 2,300 residential units would be constructed, based on the assumptions stated in Section 5.3.4. The portion of the Specific Plan area in the 70 dB noise contour would be developed with approximately 1.4 million square feet of office/R&D space and 88,000 square feet of amenity space, assuming similar building intensity across that portion of the site as the proposed project. This alternative would also develop the new Southline Avenue and all of the off-site improvements. Similar to the project, non-residential uses in the southern portion of the site would be constructed first, along with Southline Avenue and the majority of the off-site improvements, while the future phase areas would be used for construction staging and vehicle parking. The Mixed-Use Alternative (Residential, Office, and R&D) Alternative was

<sup>1</sup> 26.5 acres \* 0.5 (portion of site in 65 dB noise contour) \* 180 dwelling units/acre = 2,385 dwelling units, rounded to 2,300.

<sup>2</sup> A small, approximately 0.3-acre portion of the Specific Plan area is designated under the General Plan and zoned as Parks and Recreation; this is a linear strip that runs in a southwest-northeast direction, corresponding with an historic rail easement.

<sup>3</sup> City of South San Francisco, 2021. Shape SSF Preferred Alternative. Available: <https://shapessf.com/preferredalternative/>. Accessed: September 7, 2021.

considered for its potential to reduce or avoid the project's significant impacts related to criteria air pollutant emissions during operation (Impact AQ-2b), operational health risks at sensitive receptors (Impact AQ-3), and hazardous conditions at the Huntington Avenue/Herman Street/Forest Lane intersection (Impact TR-3d), while allowing for a similar overall scale of development throughout the Specific Plan area. The Mixed-Use Alternative (Residential, Office, and R&D) would also reduce and potentially avoid the project's contribution to significant cumulative impacts with respect to those topics (Impacts C-AQ-2, C-AQ-3, C-NOI-1, and C-TR-3d).

While the Mixed-Use Alternative (Residential, Office, and R&D) would result in fewer mobile source emissions and fewer operational sources of TACs, this alternative would introduce more sensitive receptors in proximity to construction activities during future phases. It would also introduce more sensitive receptors in proximity to operational sources of TACs in the future phase areas. Thus, while some significant impacts could be reduced or avoided, other impacts would be increased in severity. Furthermore, as stated above under the Residential Alternative, the Specific Plan area is not designated or zoned for residential use, and generally is not well suited for residential development.

The Mixed-Use Alternative (Residential, Office, and R&D) would not develop an integrated commercial campus, and as such, would not meet the underlying purpose of the project to create a state-of-the-art, transit-oriented commercial campus, including professional offices, R&D (including life science) uses, and supporting amenities (e.g., retail, fitness, restaurants, etc.) in proximity to BART and Caltrain stations. The Mixed-Use Alternative (Residential, Office, and R&D) also would not fully meet the following objectives of the project: create a commercial campus development consistent with the General Plan designation for the Specific Plan area; establish a commercial campus development with sophisticated, unified architectural and landscape design and site planning, resulting in a distinctive campus identity and strong sense of place; and redevelop underutilized parcels within the Specific Plan area to realize the highest and best use of the land by increasing the intensity of the land uses. Therefore, this alternative was rejected based on its infeasibility and inability to meet the basic project objectives.

### 5.3.6 Alternative Project Location

An alternative that would construct the proposed project at a different location in the City was considered based on its potential to reduce or avoid the project's significant impacts related to health risks at sensitive receptors (Impact AQ-3), construction noise at sensitive receptors (Impact NOI-1a), and hazardous conditions at the Huntington Avenue/Herman Street/Forest Lane intersection (Impact TR-3d). An alternative project location could also potentially reduce or avoid the project's contribution to significant cumulative impacts with respect to those topics (Impacts C-AQ-3, C-NOI-1, and C-TR-3d).

The Specific Plan area is uniquely and ideally situated with respect to public transit; it is directly adjacent to the San Bruno Bay Area Rapid Transit (BART) station and the co-located SamTrans Transit Center, approximately 0.75 mile from the San Bruno Caltrain station, and approximately 1.5 miles from the South San Francisco Caltrain station. The underlying purpose of the proposed project is to create a state-of-the-art, transit-oriented commercial campus, including professional offices, R&D (including life science) uses, and supporting amenities (e.g., retail, fitness, restaurants, etc.) in proximity to BART and Caltrain stations. Several of the project objectives are tied to the Specific Plan Area's location with respect to the BART station (e.g., promote the City's ongoing development of its transit-accessible corridors with high-quality development; promote alternatives to automobile transportation to further the City's transportation objectives by emphasizing public transit linkages,

transportation demand management (TDM), and pedestrian access and ease of movement between buildings; and create convenient and safe pedestrian and bike access from the Specific Plan area to the San Bruno BART station and the Centennial Way Trail). To implement these objectives, the project includes pedestrian circulation improvements along Huntington Avenue and along the Centennial Way Trail to improve pedestrian access to the BART station. Thus, proximity to public transit is key to meeting the fundamental objectives of the project. Additionally, creating a unified commercial campus requires the acquisition of a sufficient amount of land, most likely consisting of multiple contiguous properties.

No other sites that are comparable in size and proximity to public transit are available for new development in the City. There are no suitable sites in close proximity to the South San Francisco Caltrain station as there is currently extensive and ongoing redevelopment occurring by other developers in the vicinity of the station that would preclude a large development, such as the proposed project, from being constructed due to space constraints. Similarly, there are no suitable sites near the South San Francisco BART station due to ongoing development, as well as the location of public uses and quasi-public uses, such as El Camino High School, in close proximity to the station. In addition, the areas surrounding the South San Francisco BART station do not permit office and R&D development, and development of a large office/R&D area would not be consistent with the City's General Plan goals and vision for the area. Therefore, this alternative was rejected due to its infeasibility.

## 5.4 Alternatives Selected for Further Review

In selecting alternatives for analysis in this chapter, the City considered: the project objectives and significant impacts identified above; the potential feasibility of alternatives based on factors in CEQA Guidelines Section 15126.6(f)(1); and whether the alternative would substantially reduce or eliminate environmental impacts of the projects, with a particular emphasis on significant and unavoidable impacts. Based on these considerations, and CEQA's requirement that No Project Alternative be evaluated, this chapter evaluates the following alternatives:

- Alternative A—No Project Alternative
- Alternative B—No Intersection Alternative
- Alternative C—Reduced Project Alternative

Under Alternative A—No Project Alternative, there would be no change to existing land uses and conditions at the project site. Under Alternative B—No Intersection Alternative, the new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue would not be constructed; all other features of the project would remain the same. Alternative C—Reduced Project Alternative would involve constructing the same office and R&D campus as the proposed project, but at a reduced maximum height of 80 feet/four stories (compared to the project's maximum height of 115 feet/seven stories) and a reduced floor area ratio (FAR) of 1.5 (compared to the project's FAR of 2.4).

**Table 5-1, p. 5-15**, compares the main features of the proposed project to the three alternatives evaluated in this chapter, each of which is further described below. In order to assist comparison of the impacts of the project and the evaluated alternatives, **Table 5-4, p. 5-43**, at the end of this chapter, indicates for each significant impact, whether the impacts of the project alternatives are equal to, less than, or more severe than those of the project.

**Table 5-1. Comparison of Proposed Project Features to the Alternatives**

	<b>Proposed Project<sup>a</sup></b>	<b>Alternative A – No Project</b>	<b>Alternative B – No Intersection<sup>a</sup></b>	<b>Alternative C – Reduced Project</b>
Total Building Area (Office, R&D, and Amenity) (sf) <sup>b</sup>	2,800,000	Same as existing	2,800,000	1,404,880
Number of New Buildings	Nine buildings, one above-grade parking structure (Parking Structure C)	None (existing buildings to remain)	Nine buildings, one above-grade parking structure (Parking Structure C)	Nine buildings, one above-grade parking structure (Parking Structure C)
Building Heights	Four stories (60 feet above grade) to seven stories (115 feet above grade)	Same as existing	Four stories (60 feet above grade) to seven stories (115 feet above grade)	Four stories (80 feet above grade)
Total Building Footprint (sf) and Building Lot Coverage	543,315 (49 percent)	Same as existing	543,315 (49 percent)	543,315 (49 percent)
Total Impervious Surface Area Including Buildings and Hardscape (sf)	897,691	Same as existing	897,691	897,691
Total Area of Ground Disturbance (sf)	1,435,737	None	1,359,837	1,435,737
Total Excavation volume (cy) <sup>c</sup>	688,400	None	682,800	189,800
Maximum Depth of Excavation (feet below grade surface)	31	None	31	18
Building Area to be Demolished (sf)	343,800 (all existing buildings in Specific Plan area)	None	343,800 (all existing buildings in Specific Plan area)	343,800 (all existing buildings in Specific Plan area)
Trees to be Removed	162 (all existing trees in Specific Plan area) <sup>d</sup>	None	162 (all existing trees in Specific Plan area) <sup>d</sup>	162 (all existing trees in Specific Plan area) <sup>d</sup>
Trees to be Planted	581 <sup>e</sup>	None	581 <sup>e</sup>	581 <sup>e</sup>

<sup>a</sup> Where feature differs between the Office Scenario and Life Sciences Scenario, the greater or more impactful value is presented. Refer to Table 3-2 in Chapter 3, *Project Description*, of this EIR for additional detail.

<sup>b</sup> sf = square feet

<sup>c</sup> cy = cubic yards; volumes are inclusive of off-site improvement areas.

<sup>d</sup> For the proposed project and Alternative C, up to 19 additional tree removals in the off-site improvement areas (within both the cities of South San Francisco and San Bruno) may be required; such removals would be required to comply with any applicable local regulations. For Alternative B, no tree removals in San Bruno would be required.

<sup>e</sup> For the proposed project and Alternative C, additional trees may be planted in the off-site improvement areas, subject to each city's tree replacement requirements (South San Francisco Municipal Code Chapter 13.30, San Bruno Municipal Code Chapters 8.24 and 8.25). For Alternative B, additional trees may be planted in the off-site improvement areas in South San Francisco, but no trees would be planted in San Bruno.

## 5.5 Alternative A – No Project Alternative

CEQA Guidelines Section 15126.6(e) requires evaluation of a “no project” alternative, stating “The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.” CEQA Guidelines Section 15126.6(e)(2) requires that the no project alternative analysis “discuss the existing conditions...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and policies and consistent with the available infrastructure and community services.” As noted in CEQA Guidelines Section 15126.6, an EIR for “a development project on identifiable property” typically analyzes a no project alternative, i.e., “the circumstance under which the project does not proceed. Such a discussion would compare the environmental effects of the property remaining in its existing state against environmental effects that would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed.” In this case, the City determined that a “no build” scenario is the most likely outcome of not approving the project because no predictable actions by others, such as proposal of another reasonably foreseeable project, have been identified that could result from disapproval of the project. CEQA Guidelines Section 15126.6(e)(3)(B) states that the lead agency is not required to speculate, or create and analyze a set of artificial assumptions about what would occur in the future, if it cannot reasonably be known.

### 5.5.1 Description

Under Alternative A—No Project Alternative, the Specific Plan would not be adopted. No new construction would occur in the Specific Plan area or in the off-site improvement areas. Existing land uses would remain unchanged and in their current physical state. No demolition of existing uses would occur, and no new R&D or office uses would be built, nor would any subterranean parking garages. No new streetscape or open space would be constructed. Southline Avenue would not be constructed, nor would any of the off-site improvements associated with the project, including the the new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue and the pedestrian, bicycle, and vehicular circulation improvements along Huntington Avenue. Phase 1 would not be built. Existing General Plan land use designations and zoning districts would be maintained in the Specific Plan area. Alternative A would not preclude potential future development of the project site with a range of land uses that are permitted under existing land use designation and zoning at the Specific Plan area. Permitted uses under the existing land use designation and zoning include office and R&D uses, and heavier industrial uses to a certain extent, which are limited to essential infrastructure, general services, warehousing, and related uses in order to maintain the economic viability of the area and to provide a range of employment opportunities. Industrial uses that use or produce substantial amounts of hazardous materials or generate noise, odor, or other pollutants are not permitted.

### 5.5.2 Ability to Meet Project Objectives

Under Alternative A—No Project Alternative, the physical environment of the project site would remain unchanged. Therefore, Alternative A would fail to meet all of the project objectives. Refer to **Table 5-5, p. 5-47**, for an evaluation of the ability of this alternative to meet the objectives of the proposed project.

### 5.5.3 Impacts

The impact analysis below evaluates the potential environmental impacts of Alternative A and compares them to the impacts of the proposed project for each of the topics evaluated in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR. This analysis includes project impacts that were found to be significant and unavoidable, less than significant with mitigation, and (for informational purposes) less than significant with no mitigation required. This analysis does not evaluate topics for which the project was found to have no impact, as discussed in Section 4.18, *Impacts Found Not to be Significant*, of this EIR. Cumulative impacts are discussed for the cumulative impacts that were found to be significant and unavoidable for the project or Phase 1 (i.e., Impacts C-AQ-2, C-AQ-3, C-NOI-1, and C-TR-3d). Phase 1 impacts are discussed for the Phase 1 impacts that were found to be significant and unavoidable (Impact AQ-2b and Impact NOI-1a).

#### 5.5.3.1 Air Quality

Under Alternative A, there would be no demolition, grading, excavation, or construction activities on the project site, and no new operational sources of air pollutants would be introduced to the project site. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. Therefore, Alternative A would avoid the project's significant and unavoidable project-level and cumulative air quality impacts. Alternative A would also avoid Phase 1's significant project-level air quality impacts. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project.

#### 5.5.3.2 Biological Resources

Under Alternative A, there would be no demolition, grading, excavation, or construction activities on the project site. No tree or vegetation removal would occur, and no new lighting or surfaces that could misdirect or confuse migratory birds would be introduced to the project site. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

#### 5.5.3.3 Cultural Resources

Under Alternative A, there would be no demolition, grading, excavation, or construction activities on the project site. There would be no potential to affect historic resources or encounter previously unknown archaeological resources or human remains. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

#### 5.5.3.4 Energy

Under Alternative A, there would be no demolition, grading, excavation, or construction activities on the project site, and no temporary demand for energy use during construction would result. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. No new impact would occur relative to baseline

conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

### **5.5.3.5 Geology, Soils, and Paleontological Resources**

Under Alternative A, there would be no demolition, grading, excavation, or construction activities at the project site. There would be no potential to encounter previously unknown paleontological resources. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

### **5.5.3.6 Greenhouse Gas Emissions**

Under Alternative A, there would be no demolition, grading, excavation, or construction activities on the project site, and no new operational sources of GHG emissions would be introduced to the project site. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

### **5.5.3.7 Hazards and Hazardous Materials**

Under Alternative A, there would be no demolition, grading, excavation, or construction activities on the project site, and no new hazards or hazardous materials would be introduced to the project site during construction operation. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

### **5.5.3.8 Hydrology and Water Quality**

Under Alternative A, there would be no demolition, grading, excavation, or construction activities at the project site. There would be no potential to alter drainage patterns on the project site or affect water quality. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

### **5.5.3.9 Land Use and Planning**

Under Alternative A, there would be no demolition or construction activities at the project site. No new land uses would be introduced, and the project site would remain in its current condition. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant.

### **5.5.3.10 Noise and Vibration**

Under Alternative A, there would be no demolition, grading, excavation, or construction activities on the project site, and no new sources of noise would be introduced to the project site during

construction or operation. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. Therefore, Alternative A would avoid the project's significant and unavoidable project-level and cumulative noise impacts. Alternative A would also avoid Phase 1's significant project-level noise impacts. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project.

#### **5.5.3.11 Population and Housing**

Under Alternative A, there would be no demolition or construction activities at the project site. No new land uses that could generate employment and indirect population would be introduced, and the project site would remain in its current condition. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant.

#### **5.5.3.12 Public Services**

Under Alternative A, there would be no demolition or construction activities at the project site. No new land uses that could generate employment and indirect population and a resulting increase in the demand for public services would be introduced, and the project site would remain in its current condition. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant.

#### **5.5.3.13 Recreation**

Under Alternative A, there would be no demolition or construction activities at the project site. No new land uses that could generate employment and indirect population and a resulting increase in the demand for parks and recreational facilities would be introduced, and the project site would remain in its current condition. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant.

#### **5.5.3.14 Transportation and Circulation**

Under Alternative A, there would be no demolition, grading, excavation, or construction activities on the project site, and no new traffic sources would be introduced to the project site during construction or operation. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. Therefore, Alternative A would avoid the project's significant and unavoidable project-level and cumulative impacts related to hazardous conditions leading to unsignalized intersections meeting signal warrants. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project.

#### **5.5.3.15 Tribal Cultural Resources**

Under Alternative A, there would be no demolition, grading, excavation, or construction activities at the project site. There would be no potential to encounter previously unknown tribal cultural resources. The project site would remain in its current condition. The mitigation measures required for the project would not be required for this alternative. No new impact would occur relative to

baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

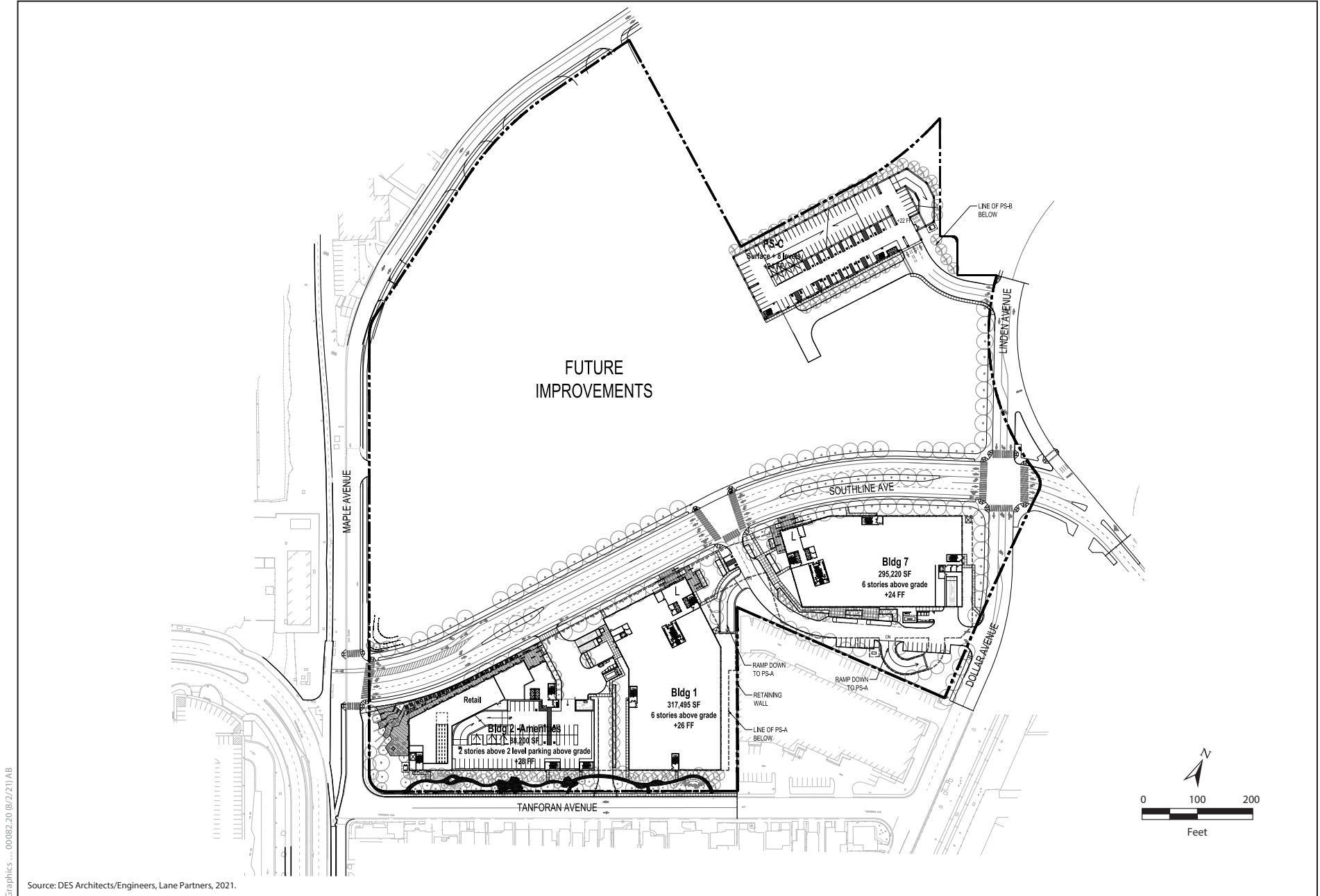
### 5.5.3.16 Utilities and Service Systems

Under Alternative A, there would be no demolition or construction activities at the project site. No new land uses would be introduced that could generate employment and indirect population and a resulting increase in the demand for utilities and service systems, and the project site would remain in its current condition. No new impact would occur relative to baseline conditions, and impacts would be less than those of the proposed project, which would be less than significant with mitigation.

## 5.6 Alternative B – No Intersection Alternative

### 5.6.1 Description

Alternative B—No Intersection Alternative would not include the street connection between Southline Avenue/Maple Avenue, and Sneath Lane/Huntington Avenue; instead, the new Southline Avenue would terminate at Maple Avenue. Alternative B would not include the new signalized intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue depicted in Figure 3-21 in Chapter 3, *Project Description*, of this EIR. Under this alternative, Huntington Avenue would not be realigned with Maple Avenue, nor would Sneath Lane be realigned with Southline Avenue. In addition, Alternative B would not include the pedestrian and bicycle improvements to enhance access to BART and SamTrans facilities and extend the Centennial Way Trail along Huntington Avenue. Alternative B was selected for evaluation based on its potential to reduce impacts related to construction air quality, construction TACs, and construction noise, and to address comments raised by the City of San Bruno during the scoping process regarding the relative impacts of constructing, or not constructing, the intersection improvements. **Figure 5-1, p. 5-21**, provides a conceptual site plan of Alternative B at Phase 1 buildout. **Figure 5-2, p. 5-22**, provides a conceptual site plan of Alternative B at full project buildout.

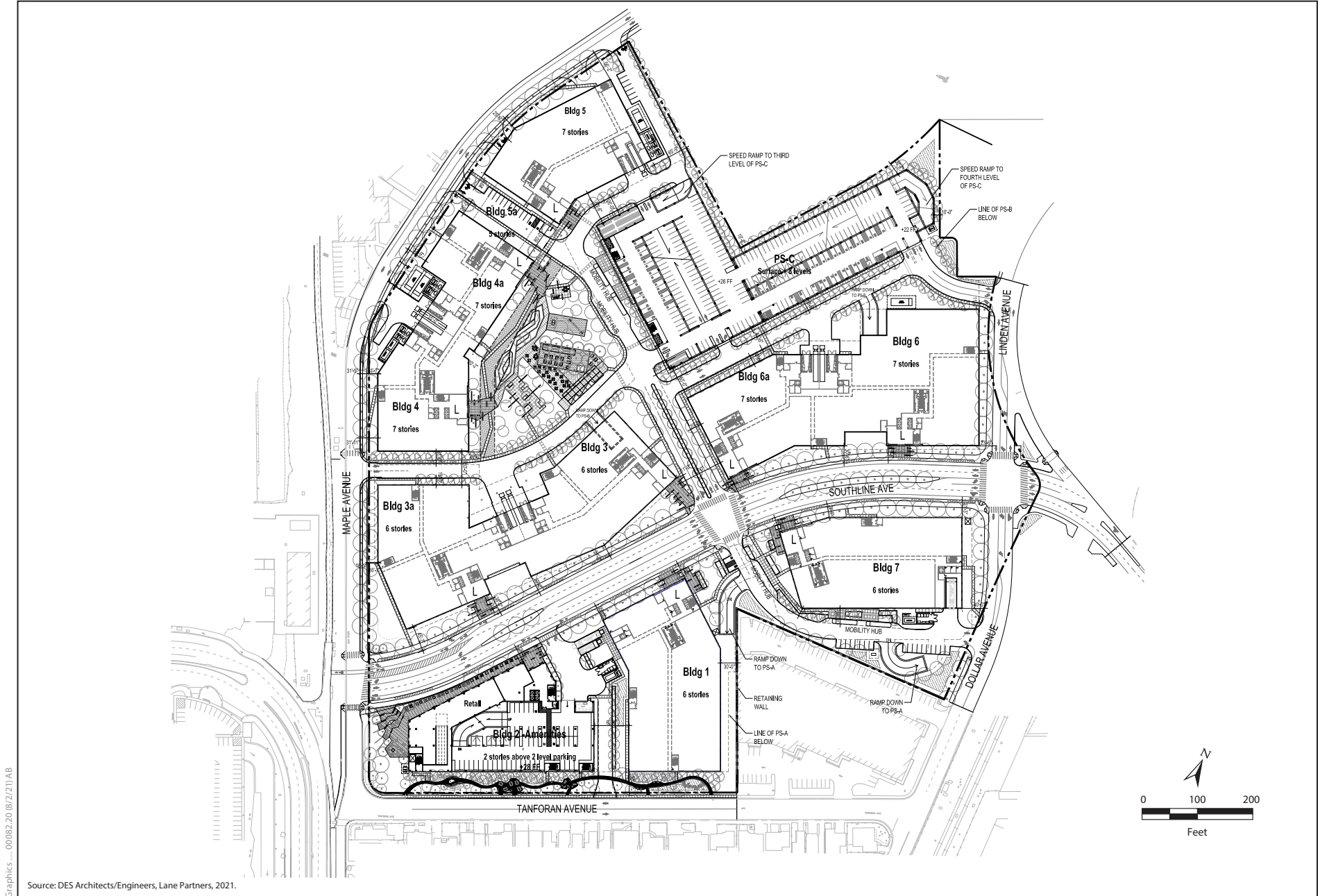


Graphics ... 00082.20 (8/2/21) AB

Source: DES Architects/Engineers, Lane Partners, 2021.



**Figure 5-1**  
**No Intersection Alternative—Phase 1 Conceptual Site Plan**



Graphics ... 00082.20 (8/2/21) AB

Source: DES Architects/Engineers, Lane Partners, 2021.



**Figure 5-2**  
**No Intersection Alternative Conceptual Site Plan**

Within the Specific Plan area, Alternative B would construct the same land use program for both Phase 1 and the proposed project. The same Specific Plan and zoning designations would apply to this alternative, which allow for development at a FAR of up to 2.5 within the Specific Plan area with incorporation of Transportation Demand Management (TDM), structured parking, off-site improvement, or specific design standards. In addition, the building design under Alternative B would be the same in height, square footage, bulk, architecture, and materials as the proposed project and would similarly be designed to achieve a minimum LEED version 4 silver rating. Alternative B would include the same design features that support VMT reduction as the proposed project, including the TDM plan, shuttle service to the Caltrain stations, carpooling and vanpooling services, and the installation of electric vehicle charging stations and bicycle parking within the project site. Alternative B would implement the same sustainability features, such as water-efficient devices, water-efficient landscaping, energy-efficient HVAC systems and equipment, all-electric energy sources to the extent feasible, and on-site recycling and composting facilities. Alternative B would provide the same open spaces and pedestrian connections within the Specific Plan area as the project.

Utility improvements associated with Alternative B would be similar to those described for the proposed project. The project site is serviced by existing potable water, stormwater, sanitary sewer, natural gas, electric, and trash recycling services. New on-site facilities would be connected to new services through the installation of new, localized connections. Expansions or an increase in capacity of off-site infrastructure would occur as required by the utility providers. With the exception of the Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue intersection and related storm drain improvements, and the Huntington Avenue pedestrian and bicycle improvements, Alternative B would construct the same off-site improvements as the proposed project, including the circulation and utility improvements in Tanforan Avenue; the circulation, intersection, and utility improvements at Southline Avenue/South Linden Avenue/Dollar Avenue; and the circulation and utility improvements along Maple Avenue.

Overall, construction activities for Alternative B would be similar to the proposed project but slightly reduced in terms of timeline and total activity since no construction activity would occur along Huntington Avenue. As shown in **Table 5-1, p. 5-15**, Alternative B would require less ground disturbance and slightly less excavation than the proposed project. Construction and demolition activities within the Specific Plan area would be the same as the proposed project.

With regard to anticipated approvals, like the proposed project, Alternative B would require Specific Plan adoption, general plan amendments, zoning map and text amendments, TDM program approval, design review, development agreement, and precise plan(s) approval. Alternative B would also require standard City engineering, building, fire, and protected tree removal permits. Since Alternative B would not include any construction within San Bruno or BART jurisdictions, approvals from those agencies would not be required.

## 5.6.2 Ability to Meet Project Objectives

Alternative B—No Intersection Alternative would generally meet the underlying purpose of the project to create a state-of-the-art, transit-oriented commercial campus, including professional offices, R&D (including life science) uses, and supporting amenities (e.g., retail, fitness, restaurants, etc.) in proximity to BART and Caltrain stations. However, it would only partially meet the project objective to “promote the City’s ongoing development of transit-accessible corridors with high quality development” because it would not maximize pedestrian and vehicular circulation

connections between the Specific Plan area and adjacent public transit facilities. For the same reason, Alternative B would only partially meet the project objective to “promote alternatives to automobile transportation to further the City’s transportation objectives by emphasizing linkages, transportation demand management (TDM), pedestrian access, and ease of movement between buildings.” Similarly, Alternative B would only partially meet the project objective to “design roadways within and adjacent to the Specific Plan area to ensure that all police, fire, and emergency medical service vehicles can safely and efficiently navigate” since the benefits to emergency access that would be achieved by extending and connecting Southline Avenue/Maple Avenue and Sneath Lane/Huntington Avenue would not be achieved under this alternative.

Alternative B would not meet the project objective to “construct a new east-west public street through the Specific Plan area to improve site access and regional roadway circulation, in furtherance of City General Plan policies” because it would not construct the new intersection of Huntington Avenue/Sneath Lane/Southline Avenue/Avenue to connect to the new Southline Avenue. In addition, Alternative B would not meet the project objective to “create convenient and safe pedestrian and bike access from the Specific Plan area to the San Bruno BART station and the Centennial Way Trail” because it would not include the BART station access and Centennial Way Trail improvements along Huntington Avenue that are proposed under the project. For the same reason, Alternative B also would not meet the project objective to “enhance vehicular, bicycle, and pedestrian circulation and access in the area surrounding the Specific Plan area.” Alternative B also would not meet the project objective to “work cooperatively with relevant agencies to implement off-site improvements with planned regional circulation and safety improvements.”

Therefore, Alternative B would meet some but not all of the project objectives. Refer to **Table 5-5, p. 5-47**, for a summary of the ability of this alternative to meet the objectives of the proposed project.

## 5.6.3 Impacts

The impact analysis below evaluates the potential environmental impacts of Alternative B and compares them to the impacts of the proposed project for each of the topics evaluated in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR. This analysis includes project impacts that were found to be significant and unavoidable, less than significant with mitigation, and (for informational purposes) less than significant with no mitigation required. This analysis does not evaluate topics for which the project was found to have no impact, as discussed in Section 4.18, *Impacts Found Not to be Significant*, of this EIR. Cumulative impacts are discussed for the cumulative impacts that were found to be significant and unavoidable for the project or Phase 1 (i.e., Impacts C-AQ-2, C-AQ-3, C-NOI-1, and C-TR-3d). Phase 1 impacts are discussed for the Phase 1 impacts that were found to be significant and unavoidable (Impact AQ-2b and Impact NOI-1a).

### 5.6.3.1 Air Quality

The same project goals, policies, and development standards identified in 2017 Clean Air Plan would apply to Alternative B. Alternative B would develop the same land use program as the proposed project and would include the same sustainability features. As such, Alternative B 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, Alternative B would not result in any odor-generating land uses and would not violate BAAQMD Regulation 7. Accordingly, odor impacts under Alternative B would be the same as under the project and would be less than significant. No mitigation would be required.

Alternative B would not include a new signalized intersection at the project entrance, Huntington Avenue would not be realigned with Maple Avenue, Sneath Lane would not be realigned with Southline Avenue, and pedestrian and bicycle routes would not be improved to connect with the BART station and Centennial Way Trail. Accordingly, reduced construction activity would be required within these off-site improvement areas, which would reduce construction emissions. Given the extent of the reduction (i.e., reduced ground disturbance of approximately 79,500 square feet and reduced excavation volume of approximately 5,600 cubic yards), this would reduce construction-related emissions impacts but not substantially enough to eliminate the significant impacts. Thus, Mitigation Measures AQ-1 through AQ-6 would continue to apply to Alternative B. Project-level and cumulative-level impacts associated with construction criteria air pollutant emissions (Impact AQ-2a and Impact C-AQ-2) were conservatively assumed to remain significant and unavoidable under this alternative, although reduced compared to the proposed project based on the reduced scale of construction activity.

During operations, the building energy sources of emissions under Alternative B would be the same as the proposed project, including in Phase 1. Alternative B would generate more VMT than the proposed project because there would be no VMT reduction associated with the Southline Avenue expansion (see Section 5.5.3.14, *Transportation and Circulation*), although VMT impacts would remain less than significant. Consequently, Alternative B would generate more operational mobile source emissions, and Mitigation Measure AQ-7 would continue to apply to Alternative B. Phase 1 generator testing would also be the same under this alternative, resulting in a significant and unavoidable impact even with implementation of Mitigation Measure AQ-8. Overall, project-level and cumulative-level impacts associated with operations criteria air pollutant emissions (Impact AQ-2b and Impact C-AQ-2) would be significant and unavoidable under this alternative, as with the project, and slightly increased compared to the proposed project due to an increase in mobile source emissions.

Construction and operation of Alternative B would generate toxic air contaminants (TACs), including diesel particulate matter (DPM), particulate matter (PM<sub>2.5</sub>), and reactive organic gasses (ROG) from solvents and chemicals specific to research labs that could be developed in the R&D buildings under the Life Sciences Scenario. Because slightly reduced construction activity would be required within the off-site improvement areas, Alternative B would generate less TACs during construction, but would not eliminate the project's significant impacts. Alternative B would generate the same amount of TACs during operation. These TACs would be within the same proximity from the same sensitive receptors that would be affected by the proposed project. Thus, Mitigation Measure AQ-1 through AQ-9 would continue to apply to Alternative B. Project-level and cumulative-level impacts associated with health risks (Impact AQ-3 and Impact C-AQ-3) would remain significant and unavoidable under this alternative, although slightly reduced compared to the proposed project due to the reduced extent of construction.

### 5.6.3.2 Biological Resources

Alternative B would be located on the same project site as the proposed project, would require the same amount of demolition and tree removals, and would occupy the same building footprints. Therefore, there would be no impacts to riparian habitat or other sensitive natural communities; state or federally protected wetlands; the movement of fish species, the use wildlife corridors or native wildlife nursery sites for fish and terrestrial, non-avian species; or provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan, similar to the proposed project. No mitigation would be required.

Additionally, impacts on movement of terrestrial, non-avian species would be the same as the proposed project and would be less than significant for Alternative B.

Under Alternative B, tree removal and structure demolition would be the same as the proposed project. Therefore, impacts on peregrine falcon, roosting special-status bat species, and resident and migratory nesting birds protected under state and federal laws, and impacts on native wildlife nursery sites for birds and bats would be the same as that of the proposed project and would be less than significant with mitigation for Alternative B. Thus, Mitigation Measures BIO-1a and BIO-1b would continue to apply to Alternative B. Additionally, Alternative B would comply with the South San Francisco Municipal Code and San Bruno Municipal Code when conducting tree removal; therefore, impacts on local policies or ordinances protecting biological resources would be the same as that of the proposed project and would be less than significant for Alternative B.

Under Alternative B, building size, building surfaces, and operational lighting of buildings would be the same as the proposed project. Therefore, impacts on the movement of migratory birds and the use of the site as a bird migratory corridor would be the same as that of the proposed project and would be less than significant with mitigation for Alternative B. Thus, Mitigation Measures BIO-2a and BIO-2b would continue to apply to Alternative B. Overall, biological resource impacts would be less than significant with mitigation under Alternative B, and similar to those of the proposed project.

### **5.6.3.3 Cultural Resources**

Alternative B would be located on the same project site as the proposed project and would require the same amount of demolition. Ground disturbance would be slightly reduced compared to the project due to the reduced scale of off-site improvements, because the amount of off-site improvements would decrease; however, excavation activities associated with the parking structures would still occur resulting in potential impacts to cultural resources. Potential impacts to historical resources, archaeological resources, and human remains that would occur under the proposed project would also occur under Alternative B; thus, implementation of Mitigation Measure CR-1, Interpretive Signage Plan; CR-2a, Cultural Resources Worker Environmental Awareness Program; CR-2b, Halt Construction Activity, Evaluate Find, and Implement Mitigation For Archaeological, Historical, and Tribal Cultural Resources; and CR-3, Halt Construction Activity, Evaluate Remains, and Take Appropriate Action in Coordination with Native American Heritage Commission, would continue to apply to this alternative. Overall, impacts would be less than significant with mitigation, as with the project, but slightly reduced compared to the project due to the reduced extent of ground disturbance.

### **5.6.3.4 Energy**

Alternative B would not include a new signalized intersection at the project entrance, Huntington Avenue would not be realigned with Maple Avenue, Sneath Lane would not be realigned with Southline Avenue, and pedestrian and bicycle routes would not be improved to connect with the BART station and Centennial Way Trail. Accordingly, reduced construction activity would be required within the off-site improvement areas, which would likely reduce the amount of energy consumed during construction-related activities, but would not eliminate the energy impact, and Mitigation Measure GHG-1 would still apply. Alternative B would consume less energy, and would have a lesser impact than the proposed project's project-level and cumulative-level less-than-significant-with mitigation energy impacts.

Operation of Alternative B would result in similar operations-related energy usage and consumption compared to the proposed project. Alternative B would generate slightly more VMT, and thus consume more energy in the form of fuel, than the proposed project because there would be no VMT reduction associated with the Southline Avenue expansion (see Section 5.5.3.14, *Transportation and Circulation*). However, as with the project, Alternative B would be designed to meet LEED version 4 Silver rating, water efficient devices and landscaping, passive heating and cooling design strategies, on-site recycling and composting facilities, electric vehicle charging infrastructure, and TDM measures. Consequently, project-level and cumulative-level operational energy impacts under Alternative B would be greater than the impacts of the proposed project, but still less than significant. No mitigation would be required.

### 5.6.3.5 Geology and Soils

Alternative B involves construction of one less intersection than the proposed project. Otherwise, Alternative B involves the same proposed project implementation as the proposed project. The same structures, utility improvements, and road improvements—other than the intersection at Southline Avenue/Maple Avenue and Sneath Lane/Huntington Avenue and the Huntington Avenue pedestrian and bicycle improvements—would be constructed during project construction and used during project operation. Furthermore, Alternative B would be subject to the same regulatory requirements as the proposed project.

Because Alternative B would be constructed at the same location as the proposed project, distance to seismic sources and underlying sediments would be the same as for the proposed project. Therefore, impacts related to surface fault rupture, strong seismic ground shaking, and seismic-related ground failure, including liquefaction and landslide, would be the same as the proposed project. In addition, because Alternative B would be constructed on the same underlying sediments as the proposed project, impacts related to expansive soils would be the same as the proposed project.

Because Alternative B would be constructed at the same location and involve the same maximum depths of excavation as the proposed project, it would encounter groundwater at the same location and require the same extent of temporary dewatering and shoring during construction. This would result in the same impacts related to unstable soils as a result of high groundwater and subsidence as a result of dewatering. In addition, because Alternative B would be constructed on the same underlying sediments as the proposed project, impacts related to static settlement would also be the same.

Alternative B, like the proposed project, would connect to South San Francisco's sewer and stormwater collection and treatment system and would not involve use of septic tanks or alternative wastewater disposal system. The impact relating to soils incapable of supporting alternative wastewater systems would be the same as under the proposed project.

Alternative B would involve excavation to the same maximum depths as the proposed project as well as being constructed at the same location. The same mitigation to reduce impacts on paleontological resources would be required under Alternative B as under the proposed project. Therefore, impacts on paleontological resources would be the same as under the proposed project.

Cumulative impacts related to geology, soils, and seismicity as well as impacts on paleontological resources would be less than significant with mitigation as with the project, and slightly reduced compared to the proposed project due to the reduced extent of off-site construction.

### 5.6.3.6 Greenhouse Gas Emissions

Alternative B would not include a new signalized intersection at the project entrance, Huntington Avenue would not be realigned with Maple Avenue, Sneath Lane would not be realigned with Southline Avenue, and pedestrian and bicycle routes would not be improved to connect with the BART station and Centennial Way Trail. Accordingly, reduced construction activity would be required within the off-site improvement areas. This would slightly reduce the construction-related GHG emissions, but would not eliminate the impacts. Mitigation Measure GHG-1 would continue to apply to Alternative B. Alternative B would have less-than-significant project-level and cumulative GHG impacts as with the project, and slightly reduced compared to the proposed project.

Alternative B would generate more vehicle trips than the proposed project because there would be no VMT reduction associated with the Southline Avenue expansion (see Section 5.5.3.14, *Transportation and Circulation*). However, Alternative B would still be presumed to have a less-than-significant impact under SB 743 (see Section 5.5.3.14, *Transportation and Circulation*). Consequently, project-level and cumulative-level operations GHG impacts under Alternative B would be less than significant, but greater than those of the proposed project due to the increase in VMT. No mitigation would be required.

### 5.6.3.7 Hazards and Hazardous Materials

Construction activities for Alternative B would be similar to the proposed project, however, Alternative B involves construction of one less intersection. Alternative B would be implemented within the same general footprint as the proposed project and therefore, the potential to encounter contaminated soil and/or groundwater during ground disturbance and hazardous building materials during demolition also exists. As such, future development associated with Alternative B would be required to implement recommendations included in various site-specific investigations conducted (previously) within the project footprint (described in Section 4.8, *Hazards and Hazardous Materials*, of this EIR). Furthermore, as there is a potential for exposure to contaminated soil, contaminated groundwater and hazardous building materials, implementation of Mitigation Measures HAZ-2a through HAZ-2c and HWQ-1 would still be required under Alternative B. Similar to the proposed project, future development as part of Alternative B would also be required to adhere to deed restrictions and DTSC oversight as part of 160 South Linden Avenue. Impacts associated with foreseeable upset and accident conditions involving the release of hazardous materials and the Alternative B being located on a Cortese List site would be less than significant.

Alternative B would require less ground disturbance at the project site compared to the proposed project but would still require the routine handling of hazardous materials. Therefore, the handling of hazardous materials would still be subject to applicable regulations for both construction and operational phases. Furthermore, operational use of hazardous materials under the Life Sciences Scenario would be similar to the proposed project. R&D tenants under the Life Sciences Scenario would still be required adhere to all applicable federal, state and local regulations for qualifying hazardous materials, seek consultation with the San Mateo County Environmental Health Department, and apply for applicable permits for regulated substances (due to the potentially toxic, flammable, or explosive characteristics of these materials). Impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

As Alternative B would be implemented in the same general footprint as the proposed project, development under the alternative would be subject to the same ALUCP compatibility criteria, including noise and height restrictions as described under Impact HAZ-5 in Section 4.8 *Hazards and Hazardous Materials*, of this EIR. Impacts associated with aviation hazards and excessive noise as a result of being near an airport would be less than significant.

As construction activities would be similar in nature to the proposed project, construction under Alternative B would still require compliance with City requirements regarding circulation and access and would also require a final inspection by the South San Francisco Fire Department to ensure emergency evacuation plans are adequate. R&D tenants under the Life Sciences Scenario under Alternative B would be required to adhere to all applicable regulations (as described under Impact HAZ-6 in Section 4.8, *Hazards and Hazardous Materials*, of this EIR). Adherence to applicable regulations and plans would ensure proper emergency response and evacuation if a release of hazardous materials would occur. Impacts associated with impairment or interference of an adopted emergency response plan or emergency evacuation plan would be less than significant.

Alternative B would be constructed highly developed industrial area, with no wildlands nearby and would not be susceptible to significant risk of loss, injury or death involving wildland fires. No impact involving wildland fires would occur.

Cumulative impacts related to hazards and hazardous materials would be the same under Alternative B as under the proposed project.

Overall, impacts to hazards and hazardous materials would be less than significant under Alternative B with mitigation, and slightly reduced compared to the impacts of the proposed project due to the reduced extent of ground disturbance.

### 5.6.3.8 Hydrology and Water Quality

Alternative B involves construction of one less intersection than the proposed project. Otherwise, infrastructure improvements associated with Alternative B would be similar to those described for the proposed project. The project site is serviced by existing stormwater services. New on-site facilities would be connected to new services through the installation of new, localized connections. The same structures, utility improvements, and road improvements—other than the intersection at Southline Avenue/Maple Avenue and Sneath Lane/Huntington Avenue and the utilities that would be realigned in that area—would be constructed during project construction and used during project operation.

Because Alternative B would be constructed at the same location as the proposed project, surface water features, water quality conditions, the underlying groundwater basin and conditions, and flood hazards would be the same as for the proposed project. Therefore, impacts related to water quality, alterations in drainage patterns, flooding, or release of pollutants due to project inundation would be the same as the proposed project, as the areas that would not be included in the offsite improvements under Alternative B are already developed with largely impervious surface areas, so the resulting drainage patterns would be similar to those that would result under the proposed project. The same mitigation to reduce impacts on groundwater quality during construction dewatering would be required under Alternative B as under the proposed project. Therefore, impacts on water quality would be the same as under the proposed project. In addition, because Alternative B would be subject to the same hydrology and water quality regulatory requirements as

the proposed project, impacts related to conflicting or obstructing a water quality control plan or sustainable groundwater management plan would be the same as the proposed project.

Because Alternative B would be constructed at the same location and involve the same depths of excavation as the proposed project, it would encounter groundwater at the same location and require the same extent of temporary dewatering during construction. This would result in the same impacts related to groundwater supply. In addition, because infrastructure improvements associated with Alternative B would be similar to those described for the proposed project, impacts related to changes in impervious cover, groundwater recharge, peak storm drain flow, and flood hazards would also be the same. Alternative B, like the proposed project, would connect to South San Francisco's stormwater collection and treatment system. The impact relating to alterations in drainage patterns resulting in erosion or flooding or exceeding the drainage system capacity would be the same as under the proposed project.

Cumulative impacts related to surface water hydrology, water quality, groundwater resources, and flood hazards would be the same under Alternative B as under the proposed project.

Overall, impacts to hydrology and water quality would be less than significant with mitigation under Alternative B, and slightly reduced compared to the impacts of the proposed project due to the reduced extent of ground disturbance.

### **5.6.3.9 Land Use and Planning**

Overall, Alternative B would have similar land use and planning impacts, though without providing some of the connectivity and pedestrian benefits, as the proposed project. While Alternative B would not include the street connection between Southline Avenue/Maple Avenue and Sneath Lane/Huntington Avenue, it would still involve the same land use program for both Phase 1 and the proposed project as currently proposed under the Specific Plan. Without the offsite roadway improvement, Alternative B would be expected to require the same project approvals by the City of South San Francisco, and require fewer approvals from the City of San Bruno. Under Alternative B, Southline Avenue would continue to terminate at Maple Avenue per the existing conditions. Because the existing conditions would remain the same, Alternative B would not result in a new impact related to the physical division of a community. However, with the existing conditions remaining the same, Alternative B would also not offer the circulation and connectivity benefits of improvements provided by the proposed project related to pedestrian and bicycle improvements associated with the new intersection (including associated BART station access and Centennial Way Trail or crosswalks).

Alternative B would not carry out certain improvements that support City of South San Francisco General Plan policies aimed at improving BART access, such as policies 3.2-G-2 (Develop new streets and through connections to facilitate truck movement; improve access to U.S. 101, and provide better connectivity between the proposed San Bruno BART station and downtown) or 3.2-1-14 (Provide new street extensions in Lindenville) as outlined in Chapter 4: Transportation. These improvements include a new interchange at South Airport Boulevard/U.S. 101, extension of Victory Avenue to the interchange, extension of South Linden Avenue to the San Bruno BART station, extension of Mission Street to South Maple Avenue, and Shaw Avenue extension north to Produce Avenue). With respect to the City of San Bruno, while the General Plan does not address this intersection connectivity expressly, it does include policies aimed at improving multi-modal access improvements that would not be fulfilled to same degree as the proposed project. Alternative B

would thus fail to further specific City of San Bruno General Plan policies aimed at improving multi-modal access improvements along Huntington, such as policies T-47, T-70, or HS-17, or its Walk 'n Bike Plan (refer to Section 4.10.3.4 in Section 4.10, *Land Use and Planning*, of this EIR for a full description of land use policies). While this alternative does not further these policies by leaving these roadways intact per their existing condition, it would not preclude future improvement.

Therefore, and consistent with the EIR findings, Alternative B would not result in an environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Alternative B impacts related to land use would be less than significant and less than cumulatively considerable; however, impacts would be greater than those of the project due to the alternative's failure to implement specific City of South San Francisco and City of San Bruno General Plan policies related to transportation and transit connections.

### 5.6.3.10 Noise and Vibration

Alternative B would not include the project's proposed new signalized intersection at the project entrance, Huntington Avenue would not be realigned with Maple Avenue, Sneath Lane would not be realigned with Southline Avenue, and pedestrian and bicycle routes would not be improved to connect with the BART station and Centennial Way Trail. Accordingly, construction for all project components may take slightly less time (e.g., the overall construction schedule may be slightly reduced) than would be required for the proposed project. However, overall construction activities near off-site sensitive land uses (e.g., near residences south of Tanforan Avenue) would be similar under Alternative B, including during Phase 1. In addition, the types of equipment required and the intensity of construction activity near off-site noise-sensitive uses would also be similar. As is the case with the proposed project, construction that occurs during the "daytime hours" defined by the City of San Bruno and the City of South San Francisco would comply with local standards and would result in less-than-significant noise impacts for Alternative B.

Since construction outside of defined "daytime hours" for San Bruno and South San Francisco would be expected for Alternative B during Phase 1 (as is the case with the proposed project), construction noise from Specific Plan and for Phase 1 during nighttime hours may be in excess of the applicable criteria for both jurisdictions. As is the case for the proposed project, nighttime construction noise impacts would be considered significant for Alternative B during Phase 1 and for the project as a whole. Implementation of Mitigation Measure NOI-1a, which includes measures to reduce noise from construction activity during non-standard construction hours, would reduce construction noise levels, but not to a less-than-significant level for the reasons stated in the project analysis in Section 4.11, *Noise*, of this EIR. Therefore, Alternative B would not reduce or avoid the significant and unavoidable project-level and cumulative impacts associated with construction noise for Phase 1 and the project (Impact NOI-1a and Impact C-NOI-1).

With regard to construction haul truck noise, Alternative B would result in similar, or slightly fewer, haul truck trips than the proposed project. In addition, the project haul truck analysis assumed 100 percent of all trucks would use each of the potential haul routes to provide for a conservative analysis. Since the project analysis assumed 100 percent of all trucks would use all routes, and because this alternative would use the same haul routes as the project (with the exception of the routes requiring the use of the Sneath Lane/Huntington Avenue intersection), impacts along Alternative B haul routes would be slightly reduced (since fewer truck trips would occur) as compared to those described for the project. Therefore, as is the case with the proposed project,

temporary noise impacts related to haul truck use for the project and for Phase 1 would be less than significant.

**Table 5-2, p. 5-21**, shows traffic noise levels under the project and Alternative B. As shown in **Table 5-2**, Project-related traffic noise increases would be greater along most roadway segments than Alternative B-related traffic noise increases in the project vicinity with the exception of four roadway segments where increases associated with Alternative B would be greater. However, Alternative B would also result in some roadway segments having lower traffic-noise levels than would occur with project implementation. Overall, the rerouting of traffic under this alternative from certain intersections would result in higher traffic volumes at other intersections. As with the proposed project, however, all traffic noise increases associated with Alternative B would be below the applicable allowable increase criterion. For this reason, traffic noise impacts under Alternative B would be less than significant, but greater than those of the project at certain locations.

Under Alternative B, the types and amount of rooftop heating and cooling equipment would be the same. Therefore, as with the proposed project, noise from heating, cooling, and ventilation equipment at the project site may exceed the daytime and nighttime thresholds outlined in the Municipal Codes of the City of South San Francisco and the City of San Bruno and at nearby buildings. Implementation of project Mitigation Measure NOI-1b would reduce this impact to less than significant levels for Alternative B.

With regard to emergency generator testing, Alternative B would be expected to include the same number and similar sizes of on-site emergency generators. As is the case with the proposed project, even though the testing of emergency generators would be short term (i.e., 30 minutes each time) and intermittent (i.e., approximately once per month), noise from the testing of emergency generators under the Specific Plan and Phase 1 would result in noise levels in excess of applicable municipal code criteria in both San Bruno and South San Francisco. Noise impacts from emergency generator testing would be significant, and mitigation would be required. Implementation of Mitigation Measure NOI-1c would reduce this potentially significant impact related to emergency generator testing noise to a less-than-significant level in both jurisdictions for Alternative B. In addition, with regard to loading docks, Alternative B would result in a similar number of loading activities as the proposed project. Therefore, as with the proposed project, temporary and short-term increases in noise from project loading activity would not be considered substantial. Impacts related to loading dock noise from the Specific Plan and from Phase 1 would be less than significant. Similarly, noise from parking garages and outdoor gathering spaces would be less than significant and the same as the proposed project.

Table 5-2. Modeled Alternative B Traffic Noise Impacts

Roadway	Segment	2040 Without Project (dB L <sub>dn</sub> )	2040 With Project (dB L <sub>dn</sub> )	2040 With Alternative B (dB L <sub>dn</sub> )	Project-Related Increase (dB)	Alternative B-related increase (dB)	Larger Increase under Alternative B?	Applicable Compatibility Standard	Exceeds Standard?	Allowable Increase	Exceeds Allowable Increase?
Sneath Lane	Between I-280 and Cherry Avenue	67.3	67.7	67.6	0.4	0.3	No	65 <sup>a</sup>	Yes	3	No
Sneath Lane	Between Cherry Avenue and El Camino Real	70.0	70.7	70.4	0.7	0.4	No	70 <sup>a</sup>	Yes	3	No
El Camino Real	Between Sneath Lane and I-380	71.9	72.2	72.1	0.3	0.2	No	70 <sup>a</sup>	Yes	3	No
El Camino Real	Between I-380 on-/off-ramps	72.3	72.6	72.5	0.3	0.1	No	N <sup>a</sup>	NA	NA	NA
Sneath Lane	Between El Camino Real and Huntington Avenue	65.4	67.1	66.6	1.7	1.2	No	70 <sup>a</sup>	No	5	No
Huntington Avenue	Between San Bruno Ave and Forest Lane	64.7	65.1	64.8	0.5	0.1	No	60 <sup>a</sup>	Yes	3	No
Huntington Avenue	Between Forest Lane/Herman Street and Sneath Lane	64.4	64.8	67.0	0.4	2.6	<b>Yes</b>	60 <sup>a</sup>	Yes	3	No
San Mateo Avenue	Between South Linden and South Airport Boulevard	67.9	68.7	68.9	0.8	1.0	<b>Yes</b>	70 <sup>b</sup>	No	5	No
South Linden Avenue	Between Grand Avenue and San Mateo Avenue	67.6	69.1	66.0	1.5	-1.6	No	65 <sup>b</sup>	Yes	3	No
South Linden Avenue	Between Dollar Avenue and San Mateo Avenue	61.8	64.7	56.7	2.9	-5.1	No	70 <sup>b</sup>	No	5	No
Tanforan Avenue	Huntington Avenue and Dollar Avenue	59.8	55.4	61.1	-4.5	1.2	<b>Yes</b>	60 <sup>a</sup>	Yes	3	No
South Maple Avenue	Tanforan Avenue and Victory Avenue	61.7	64.6	64.4	3.0	2.7	No	70 <sup>a,b</sup>	No	5	No
Dollar Avenue/Herman Street	Between Tanforan Avenue and Scott Street	62.1	62.3	63.9	0.2	1.8	<b>Yes</b>	60 <sup>a</sup>	Yes	3	No

Source: Traffic volumes provided by Fehr & Peers. Modeling conducted using a spreadsheet that was based on the FHWA Traffic Noise Model, version 2.5, at a fixed distance of 33 feet from the roadway centerline.

<sup>a</sup> Located in the city of San Bruno (San Bruno Compatibility Criteria for the most sensitive nearby land use is applied)

<sup>b</sup> Located in the city of South San Francisco (South San Francisco Compatibility Criteria for the most sensitive nearby land use is applied)

With regard to damage and annoyance-related vibration impacts, since the proximity of construction activities to nearby residences would be similar under this alternative (e.g. along the western terminus of Tanforan Avenue and the southern perimeter of the project site), vibration impacts would also be similar. Specifically, nighttime construction activities would all occur at least 100 feet from the nearest residences and would generate vibration levels well below the “barely perceptible” level. Daytime construction activities would generally occur at the same approximate distances from off-site residential or commercial/office and industrial buildings. Therefore, as with the proposed project, construction activities for Alternative B would result in vibration levels below the applicable damage criteria for nearby buildings. Annoyance and damage-related vibration impacts would be less than significant for Alternative B.

Overall, construction noise impacts under Alternative B would remain significant and unavoidable similar to the proposed project, but would be slightly reduced compared to the project due to the reduced extent of construction activity. Alternative B would not reduce or avoid the significant and unavoidable project-level and cumulative impacts associated with construction noise for Phase 1 and the project (Impact NOI-1a and Impact C-NOI-1). Additionally, operational noise levels would be somewhat greater than those of the project due to increased local traffic congestion but would remain less than significant.

#### **5.6.3.11 Population and Housing**

Alternative B would have the same population and housing impacts as the proposed project. Under Alternative B, building size (2,800,00 sf) would be the same as the proposed project; therefore, Alternative B would be expected to generate the same number of direct and indirect employees, households, and residents as the proposed project. Therefore, Alternative B impacts related to population and housing would be the same as that of the proposed project and would be less than significant and less than cumulatively considerable.

#### **5.6.3.12 Public Services**

Alternative B would have the same public services impacts as the proposed project. Under Alternative B, building size would be the same as the proposed project, and approximately 2.8 million sf would be developed. Therefore, Alternative B would be expected to generate the same number of direct and indirect employees, households, and residents as the proposed project that would be added to the city’s police, fire, school, childcare, and library service populations. Therefore, Alternative B impacts related to public services would be the same as that of the proposed project and would be less than significant and less than cumulatively considerable.

#### **5.6.3.13 Recreation**

Alternative B would have the same recreation impacts as the proposed project. Under Alternative B, building size would be the same as the proposed project and would offer the same amenities and open spaces such as the Tanforan Avenue Community Parklet, and Southline Commons. Therefore, impacts related to recreation would be less than significant under Alternative B, the same as under the proposed project.

Cumulative impacts related to recreation would also be the same under Alternative B as under the proposed project for the same reasons stated above. Therefore, cumulative impacts would be less than significant for Alternative B, the same as under the proposed project.

### 5.6.3.14 Transportation and Circulation

The transportation and circulation impacts of Alternative B are evaluated in Section 6 of the Transportation Impact Analysis (TIA) prepared for the proposed project by Fehr & Peers in June 2021 (**Appendix 4.15-1** of this EIR). The following discussion summarizes that analysis.

As documented in Section 6 of the TIA, Alternative B would not change the project site's proximity to transit and the presumption of less-than-significant impacts to VMT pursuant to SB 743 and the related implementing regulations. Alternative B would not realize the slight decrease in VMT associated with more direct trips between San Bruno and the Lindenville District in South San Francisco, although Alternative B would have a less-than-significant impact on VMT and no mitigation is required.

Alternative B would not provide access improvements to the San Bruno BART Station under Phase 1 or full buildout, but would provide onsite circulation changes consistent with design standards set forth under the Specific Plan. Therefore, Alternative B would have a less-than-significant impact on design hazards, and no mitigation is required.

As documented in Section 6 of the TIA, Alternative B would not cause vehicle trips associated with Phase 1 to exceed ramp storage capacities at any ramps studied; however, queues would exceed ramp storage capacity due to project-related travel at one study location (I-280 Northbound Off-Ramp at San Bruno Avenue) under buildout conditions (refer to Table 6-4 in the TIA); this impact is studied for project conditions as Impact TR-3b under the Section 4.15, *Transportation and Circulation*. As such, Alternative B would have a significant freeway queuing impact at this location under project, but not Phase 1 conditions in a manner that would not otherwise occur under the proposed project. Construction of the intersection at Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue proposed by the project would mitigate this impact to a less-than-significant level. However, without the direct implementation of the intersection by the project applicant, no plan or funding mechanism exists to implement this mitigation since it is not presently included in a capital improvement or fee program adopted by the City of South San Francisco or City of San Bruno where the mitigation would be jointly located. Therefore, while the proposed mitigation could reduce Alternative B's impact to a less-than-significant level, because a funding mechanism does not exist, the impact (Impact TR-3b) would be significant and unavoidable for Alternative B. There are no other feasible mitigation measures to mitigate this impact to a less-than-significant level. This significant and unavoidable impact would not occur under the proposed project.

Alternative B would result in increased traffic volumes at the realigned at-grade rail crossing at South Linden Avenue under Phase 1 and buildout conditions. However, project-related crossing improvements would limit the risk of collisions associated with increased traffic, consistent with the Phase 1 and project site plans. Therefore, Alternative B would have a less-than-significant impact on the South Linden Avenue at-grade rail crossing under Phase 1 and buildout conditions, and no mitigation is required.

Alternative B would result in an increase in vehicle traffic across the at-grade rail crossing at Scott Street, but would not increase vehicle queues beyond available storage under Phase 1 or buildout conditions. As a result, the Alternative would have a less-than-significant impact on the Scott Street at-grade rail crossing under Phase 1 and buildout conditions, and no mitigation is required.

None of the project's five unsignalized driveways meet peak hour signal warrants under Phase 1 or buildout conditions with Alternative B. Alternative B would provide appropriate pedestrian crossing

treatments at these unsignalized crossings. As a result, Alternative B would have a less-than-significant impact on traffic signal warrants under Phase 1 and buildout conditions, and no mitigation is required.

As documented in Section 6 of the TIA included in **Appendix 4.15-1** of this EIR, Alternative B would result in a net increase of about 133 PM vehicle trips under Phase 1 conditions and 571 PM peak hour trips under buildout conditions at the intersection of Huntington Avenue/Herman Street/Forest Avenue. This intersection meets CA-MUTCD peak hour signal warrant during the PM peak hour under Existing, 2024 No Project, and 2040 No Project conditions; the addition of Phase 1 and buildout traffic under Alternative B would substantially contribute to the need for a signal at this intersection. As such, Alternative B would have a significant impact at this location under both Phase 1 and buildout conditions, (whereas under the project, the impact would only be significant at the project level). Similar to the project, this impact could be mitigated by a fair share contribution towards implementation of a traffic signal. However, a traffic signal at this location is not presently included in a capital improvement or fee program adopted by the City of San Bruno, therefore, the City of San Bruno does not have a mechanism for funding this mitigation and cannot ensure this mitigation occurs will be implemented. Therefore, while the installation of a traffic signal could reduce the impact on this intersection to a less-than-significant level, because a plan or funding mechanism does not exist, the impact would remain significant and unavoidable. Therefore, Alternative B would not avoid, and would in fact increase the severity of, the proposed project's significant and unavoidable project-level and cumulative impacts related to design hazards at the Huntington Avenue/Herman Street/Forest Avenue intersection (Impact TR-3d and C-TR-3d). Furthermore, under Alternative B, this impact would also be significant and unavoidable at the project and cumulative levels for Phase 1. This is not the case with the proposed project, which would result in less than significant and less than cumulatively considerable impacts for Phase 1 under Impact TR-3d and C-TR-3d, respectively.

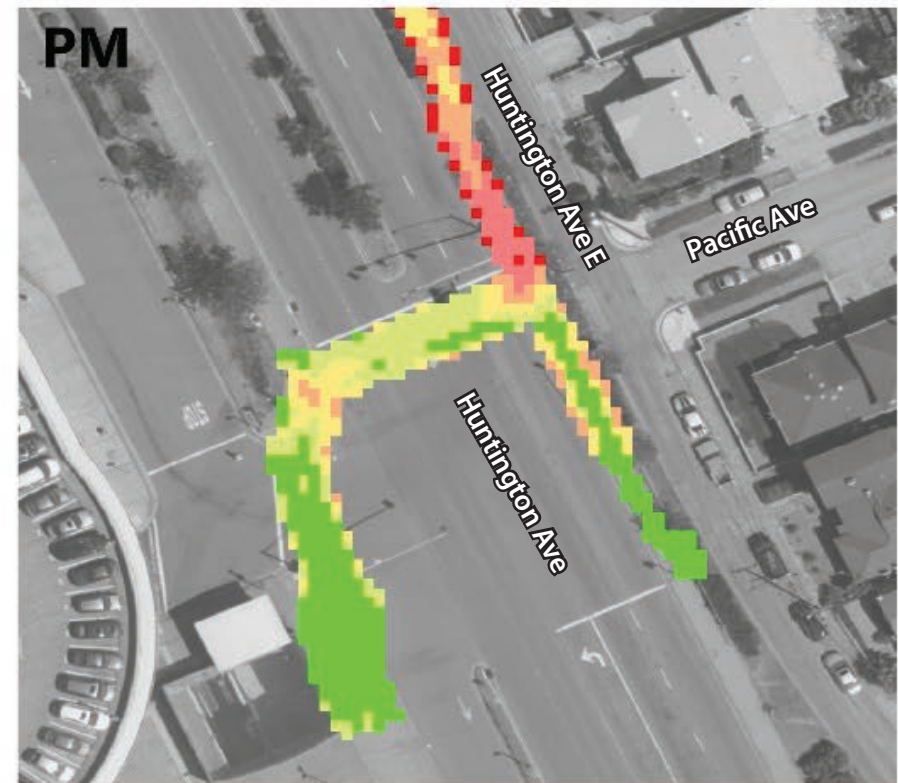
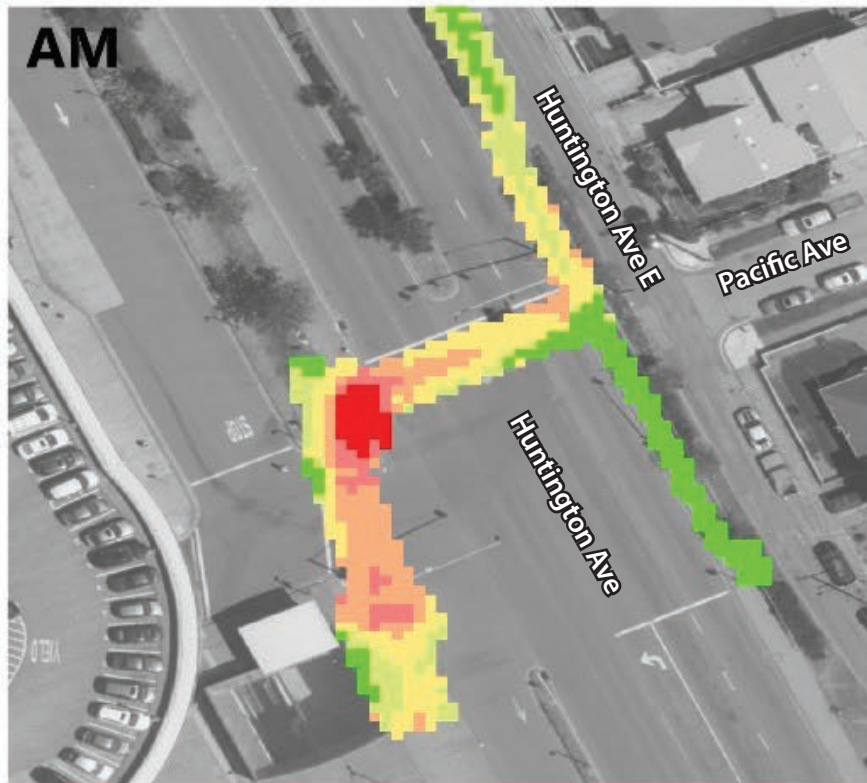
Alternative B would not include design elements that would hinder emergency access, and all roadways and facilities will be designed to accommodate emergency vehicles. Therefore, Alternative B would have a less than significant impact on emergency vehicle access under Phase 1 and buildout conditions, as with the project, and no mitigation is required.

Alternative B would fail to implement the connection of Sneath Lane and Southline Avenue, the extension of the Centennial Way Trail, and access improvements to the San Bruno BART Station consistent with adopted plans and policies by the Cities of South San Francisco and San Bruno, C/CAG, BART and MTC as discussed in Section 5.6.3.9 Land Use above. However, Alternative B would not necessarily preclude these changes in the future, and therefore Alternative B would not conflict with adopted policies, plans, or programs and would have a less than significant impact, as with the project, and no mitigation is required.

Alternative B would not substantially affect transit operations or contribute to transit overcrowding as Alternative B would be expected to generate the same number of direct and indirect employees as the proposed project. Therefore, Alternative B would have a less than significant impact on transit performance under Phase 1 and buildout conditions, as with the project, and no mitigation is required.

As documented in Section 6 of the TIA included in **Appendix 4.15-1** of this EIR, Alternative B would result in substantial crowding to pedestrian and bicycle facilities near the San Bruno BART Station entrance that would not otherwise occur under the proposed project, as Alternative B would not

include pedestrian and bicycle circulation improvements to increase capacity that would otherwise be included in the proposed project. See **Figure 5-3, p. 5-27**. While existing facilities could accommodate Phase 1 pedestrian volumes, existing sidewalk, crosswalk, and signal facilities are insufficient to accommodate buildout pedestrian volumes under Alternative B, and may pose a hazardous condition due to crowding. Therefore, Alternative B would have a less than significant impact under Phase 1 conditions, while the alternative would have a significant impact under buildout conditions with respect to pedestrian and bicycle crowding that would not occur under the proposed project. Implementation of pedestrian improvements at the San Bruno BART Station entrance as included in the proposed project would alleviate this potentially significant impact under Alternative B buildout conditions. Pedestrian improvements would include adding a bulbout, curb ramps, and marked high-visibility crosswalk on the southern leg of the intersection, a high-visibility crosswalk on the northern leg of the intersection, and retiming the signal to include pedestrian recall. However, without the direct implementation by the project applicant, no plan or funding mechanism exists to implement this mitigation since it is not presently included in a capital improvement or fee program adopted by the City of South San Francisco or City of San Bruno where the mitigation is jointly located. Therefore, while implementation of the Huntington Avenue pedestrian and bicycle circulation improvements could reduce Alternative B's impact to a less-than-significant level, because a funding mechanism does not exist, the impact would remain significant and unavoidable. There are no other feasible mitigation measures to reduce this impact to a less-than-significant level. This significant and unavoidable impact (Impact TR-5B) would not occur under the proposed project.



#### Color Scheme

#### Areas (Pedestrian Grid Cells)

Attribute: Experienced density (Avg.Min) [ped/ft<sup>2</sup>]

- Ability to move in desired path, no need to alter movements
- Occasional need to adjust path to avoid conflicts
- Frequent need to adjust path to avoid conflicts
- Speed and ability to pass slower pedestrians restricted
- Speed restricted, very limited ability to pass slower pedestrians
- Speed severely restricted, frequent contact with other users
- Undefined

Source: Fehr and Peers, 2021.

**Figure 5-3**  
**Pedestrian Space During AM and PM Peak Hours**  
**No Intersection Alternative**

### **5.6.3.15 Tribal Cultural Resources**

Alternative B would be located on the same project site as the proposed project and would require the same amount of demolition. However, ground disturbance would be slightly reduced compared to the project due to the reduced scale of off-site improvements. Therefore, potential impacts to archaeological resources and human remains that would occur under the proposed project would also occur under Alternative B but would be reduced. Such resources have the potential to be considered tribal cultural resources; thus, implementation of Mitigation Measure CR-2a, Cultural Resources Worker Environmental Awareness Program; CR-2b, Halt Construction Activity, Evaluate Find, and Implement Mitigation For Archaeological, Historical, and Tribal Cultural Resources; and CR-3, Halt Construction Activity, Evaluate Remains, and Take Appropriate Action in Coordination with Native American Heritage Commission, would continue to apply to this alternative. Overall, impacts would be less than significant with mitigation, as with the project, but slightly reduced compared to the project due to the reduced extent of ground disturbance.

### **5.6.3.16 Utilities and Service Systems**

Alternative B would have the same utilities and service systems impacts as the proposed project. Under Alternative B, building size would be the same as the proposed project, and approximately 2.8 million sf would be developed. The off-site improvements, which would be reduced under Alternative B, would not generate a demand for utilities and service systems. Therefore, Alternative B would be expected to generate the same demand for utilities and service systems as the proposed project.

With the exception of the proposed storm drain improvements at the Huntington Avenue/Sneath Lane/Southline Avenue/Maple Avenue intersection, Alternative B would construct the same utility improvements as the proposed project. Therefore, with construction of the proposed improvements, additional construction or relocation of utility infrastructure would not be required to serve Alternative B. Refer to Section 5.6.3.8, p. 5-29, for a discussion of Alternative B's hydrology and water quality impacts.

Overall, Alternative B's impact related to utilities and service systems would be the same as that of the proposed project and would be less than significant with mitigation and less than cumulatively considerable with mitigation.

## **5.7 Alternative C – Reduced Project Alternative**

### **5.7.1 Description**

Alternative C—Reduced Project Alternative would reduce maximum building heights to 80 feet or four to five stories in accordance with the 80-foot maximum building height per the City's General Plan Special Area Height Limitations (General Plan Figure 2-3) and BPO zoning district development standards, in comparison to the maximum heights that would be allowed under the proposed project of approximately 120 feet (depending on the specific site elevations across the Specific Plan area), as governed by maximum height allowances under FAA Part 77 regulations and San Francisco International Airport ALUCP. The amount of net new development would be reduced to approximately 1,404,880 square feet compared to 2,800,000 square feet under the proposed

project. Alternative C was selected for evaluation based on its potential to reduce impacts related to construction air quality, construction TACs, construction noise, and signal warrants.

Alternative C would not change the permitted uses that would be allowed to occur under the project or the footprint of proposed buildings, however, it would change the intensity at which they would occur due to the reduced height limit of 80 feet or four to five stories. Phase 1 would still include the construction of Buildings 1 and 7, and the amenities building (Building 2). However, Phase 1, under Alternative C, would involve approximately 449,760 square feet of new R&D or office uses, instead of 700,915 square feet of new uses as proposed under the project. Under Alternative C, Phase 1 would include the same amount of amenity building parking spaces proposed under the project, but would only have one level of below-grade parking under the three buildings on the Phase 1 site instead of two levels of below-grade parking under the proposed project. Furthermore, under Alternative C, the above-ground parking garage would be constructed in future phases of the project, rather than Phase 1. Phase 1 under Alternative C would provide approximately 669 total parking spaces in comparison to 1,379 total parking spaces that would be provided in Phase 1 under the proposed project.

Under Alternative C, future phases of the project would be allowed to develop up to approximately 955,120 square feet of new office or R&D uses, in comparison to the up to 2,800,000 square feet of uses that would be developed under the proposed project (Office Scenario). In addition, unlike the proposed project, Alternative C would not include any below-grade parking levels in any of the future phases. As explained above, the parking garage would be constructed in future phases of Alternative C, and also would not include any below-grade parking levels. Overall, even though reduced amounts of development would occur under Alternative C, the total lot coverage, and amount of pervious and impervious surfaces would be the same as under the proposed project.

**Table 5-3** provides estimates of the amount of new development that could be constructed at buildout under Alternative C.

**Table 5-3. Projected 2030 Development under the Reduced Project Alternative**

	<b>Square footage (sf)</b>
<b>Existing Building Area Total</b>	<b>343,800</b>
<i>Industrial/Warehouse</i>	339,349
<i>Office</i>	4,451
<b>Existing to be Removed</b>	
Phase 1 (2024)	343,800
Remaining Specific Plan Buildout	0
Total to be Removed	343,800
Total Existing to Remain	0
<b>Proposed New Construction</b>	
Phase 1 (2024)	449,760
Remaining Specific Plan Buildout	955,120
<b>Total New Construction Proposed</b>	<b>1,404,880</b>

All other features of Alternative C would be the same as, or substantially similar to, those of the proposed project, including the potential office or R&D use, the proposed circulation and

infrastructure improvements, the pedestrian realm and open space improvements, building design, TDM program, and sustainability features.

The construction activities for Alternative C would be similar to the proposed project, however, there would be a few key differences. The construction schedule for Alternative C may be substantially shorter than the proposed project, and construction of the parking garage would be included in future phases of project buildout rather than Phase 1. In addition, Alternative C would require substantially less ground disturbance overall compared to the proposed project since subterranean parking would not be provided in any of the future phases. Furthermore, parking provided in Phase 1 under Alternative C would only include one level of below-grade parking, instead of two levels of below-grade parking as proposed with the project. Overall, Alternative C would result in a substantially reduced construction program.

As for the anticipated approvals, Alternative C would still require Specific Plan adoption, general plan amendments, zoning map and text amendments, TDM plan approval, design review, development agreement, and precise plan(s) approval. Alternative B would also require standard City engineering, building, fire, protected tree removal permits, along with other agency approvals (e.g., City of San Bruno, BART, Bay Area Regional Water Quality Control Board, BAAQMD, City/County Association of Governments Airport Land Use Commission, and Federal Aviation Administration).

## 5.7.2 Ability to Meet Project Objectives

Alternative C—Reduced Project Alternative would generally meet the underlying purpose of the project to create a state-of-the-art, transit-oriented commercial campus, including professional offices, R&D (including life science) uses, and supporting amenities (e.g., retail, fitness, restaurants, etc.) in proximity to BART and Caltrain stations. However, it would only partially meet the project objective to “create a commercial campus development consistent with the General Plan designation for the Specific Plan area” because it would not maximize allowable uses under the existing General Plan land use designation of Office, which applies to virtually the entire Specific Plan area.

Alternative C would involve constructing buildings with the same ratio of office/R&D uses as the proposed project, but with a reduced building height, resulting in approximately 50 percent less square footage. Similarly, Alternative C would only partially meet the project objective to “promote the City’s ongoing development of transit-accessible corridors with high-quality development” because it would not maximize the site’s potential uses to the same extent as the project. Alternative C would only partially meet the project objective to “allow for well-designed, flexible buildings and floor plates that can accommodate a variety of commercial building uses over time to ensure that the Specific Plan is responsive to market conditions and demands” because it would not maximize the allowable land uses on the project site. For the same reason, Alternative C would only partially meet the project objective to “establish flexibility to build the proposed project in phases that respond to market conditions.” Alternative C would only partially meet the project objective to “redevelop underutilized parcels within the Specific Plan area to realize the highest and best use of land by increasing the intensity of land uses” because it would not maximize office and R&D uses at the site compared to the proposed project. Alternative C would only partially meet the project objectives to “provide a positive fiscal impact on the local economy through the creation of jobs, enhancement of property values, and generation of property tax and other development fees” because it would be less viable, generate fewer jobs, enhance the property value to a lesser extent, and generate fewer taxes and fees compared to the proposed project. Therefore, Alternative C would

meet some but not all of the project objectives. Refer to **Table 5-5, p. 5-40**, for a summary of the ability of this alternative to meet the objectives of the proposed project.

### 5.7.3 Impacts

The impact analysis below evaluates the potential environmental impacts of Alternative C and compares them to the impacts of the proposed project for each of the topics evaluated in Chapter 4, *Environmental Setting, Impacts, and Mitigation*, of this EIR. This analysis includes project impacts that were found to be significant and unavoidable, less than significant with mitigation, and (for informational purposes) less than significant with no mitigation required. This analysis does not evaluate topics for which the project was found to have no impact, as discussed in Section 4.18, *Impacts Found Not to be Significant*, of this EIR. Cumulative impacts are discussed for the cumulative impacts that were found to be significant and unavoidable for the project or Phase 1 (i.e., Impacts C-AQ-2, C-AQ-3, C-NOI-1, and C-TR-3d). Phase 1 impacts are discussed for the Phase 1 impacts that were found to be significant and unavoidable (Impact AQ-2b and Impact NOI-1a).

#### 5.7.3.1 Air Quality

The same project goals, policies, and development standards identified in 2017 Clean Air Plan would apply to Alternative C. Alternative C would develop the same land use program as the proposed project, albeit at a reduced density, and would include the same sustainability features. As such, Alternative C 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, Alternative C would not result in any odor-generating land uses and would not violate BAAQMD Regulation 7. Accordingly, odor impacts under Alternative C would be the same as under the project and would be less than significant. No mitigation would be required.

Under the reduced construction program of Alternative C, construction activities would be reduced due to the reduced scale of development, which would reduce overall construction emissions in terms of quantity and duration. However, this alternative would not eliminate the project's significant and unavoidable construction impacts, because construction impacts are evaluated based on maximum activity days, which would be expected to be similar under this alternative. Thus, Mitigation Measures AQ-1 through AQ-6 would continue to apply to Alternative C. Project-level and cumulative-level impacts associated with construction criteria air pollutant emissions (Impact AQ-2a and Impact C-AQ-2) would be significant and unavoidable under this alternative, although reduced compared to the proposed project.

During operations, the building energy sources of emissions under Alternative C would be less than the proposed project because the proposed buildings would be smaller. In addition, Alternative C would generate fewer vehicle trips than the proposed project because there would be fewer employees at the project site. Consequently, Alternative C would generate fewer operational emissions. This would reduce operation-related emissions impact but would not eliminate the impacts. Mitigation Measure AQ-7 would continue to apply to Alternative C, but similar to the project, there is no guarantee that sufficient offsets would be available to mitigate impacts to a less-than-significant level. Alternative C would likely include fewer generators in Phase 1, however, similar to the project, even with implementation of Mitigation Measure AQ-8, which limits generator testing to one generator per day, Phase 1 impacts would still be expected to exceed BAAQMD's project-level thresholds, resulting in a significant and unavoidable impact. Therefore, Project-level

and cumulative-level impacts associated with operations criteria air pollutant emissions (Impact AQ-2b and Impact C-AQ-2) would be significant and unavoidable, although reduced compared to the proposed project.

Similar to the proposed project, construction and operation of Alternative C would generate toxic air contaminants (TACs), including diesel particulate matter (DPM), particulate matter (PM<sub>2.5</sub>), and reactive organic gasses (ROG) from solvents and chemicals specific to research labs that could be developed in the smaller R&D buildings under the Life Sciences Scenario. Consequently, Alternative C would generate fewer TACs. This would reduce construction and operation-related health risks from DPM, PM<sub>2.5</sub>, and ROG, but would not eliminate the impacts. These TACs would be within the same proximity from the same sensitive receptors that would be affected by the proposed project. Thus, Mitigation Measure AQ-1 through AQ-9 would continue to apply to Alternative C. Project-level and cumulative-level impacts associated with health risks (Impact AQ-3 and Impact C-AQ-3) would be significant and unavoidable under this alternative, although reduced compared to the proposed project.

### 5.7.3.2 Biological Resources

Alternative C would be located on the same project site as the proposed project, would require the same amount of demolition and tree removals, and would occupy the same building footprints. Therefore, there would be no impacts to riparian habitat or other sensitive natural communities; state or federally protected wetlands; the movement of fish species, the use wildlife corridors or native wildlife nursery sites for fish and terrestrial, non-avian species; or provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan similar to the proposed project. No mitigation would be required. Additionally, impacts on movement of terrestrial, non-avian species would be the same as the proposed project and would be less than significant for Alternative C.

Under Alternative C, tree removal and structure demolition would be the same as the proposed project. Therefore, impacts on peregrine falcon, roosting special-status bat species, and resident and migratory nesting birds protected under state and federal laws, and impacts on native wildlife nursery sites for birds and bats would be the same as that of the proposed project and would be less than significant with mitigation for Alternative C. Thus, Mitigation Measures BIO-1a and BIO-1b would continue to apply to Alternative C. Additionally, Alternative C would comply with the South San Francisco Municipal Code and San Bruno Municipal Code when conducting tree removal; therefore, impacts on local policies or ordinances protecting biological resources would be the same as that of the proposed project and would be less than significant for Alternative C.

Under Alternative C, building height and square footage would be less than the proposed project, but operation would be the same and include the use of new lighting and construction of buildings with potentially reflective surfaces. Although impacts on the movement of migratory birds and the use of the site as a bird migratory corridor would be reduced Under Alternative C due to the reduced building size, the impacts would not be eliminated. Therefore, impacts would be that same as that of the proposed project and would be less than significant with mitigation for Alternative C. Thus, Mitigation Measure BIO-2a and BIO-2b would continue to apply to Alternative C. Overall, biological resource impacts would be less than significant with mitigation under Alternative C, and similar to those of the proposed project.

### 5.7.3.3 Cultural Resources

Alternative C – Reduced Project Alternative, includes similar demolition and construction activities as the proposed project. However, the depth of ground disturbance associated with Alternative C is substantially less than the proposed project. Only one level of subterranean parking would be included in Phase 1 of this Alternative, compared to two levels included under the proposed project. Additionally, Alternative C does not include any subterranean parking in future development. Although, the depth of ground disturbance would be significantly less, the overall footprint of the project and associated construction remains similar to that of the proposed project, therefore, potential impacts to historical resources, archaeological resources, and human remains that would occur under the proposed project would also occur under Alternative C; thus, implementation of Mitigation Measure CR-1, Interpretive Signage Plan; CR-2a, Cultural Resources Worker Environmental Awareness Program; CR-2b, Halt Construction Activity, Evaluate Find, and Implement Mitigation For Archaeological, Historical, and Tribal Cultural Resources; and CR-3, Halt Construction Activity, Evaluate Remains, and Take Appropriate Action in Coordination with Native American Heritage Commission, would continue to apply to this alternative. Overall, impacts would be less than significant with mitigation, and less than those of the proposed project.

### 5.7.3.4 Energy

Under the reduced construction program of Alternative C, less construction activities would be required for the reduced building footprint. This would reduce the amount of energy consumed during construction, but would not eliminate the impact. Mitigation Measure GHG-1 would continue to apply to Alternative C. Alternative C would have a lesser impact than the proposed project's project-level and cumulative-level less-than-significant-with mitigation energy impacts.

Operation of Alternative C would generate fewer vehicle trips than the proposed project because there would be fewer employees at the project site, and thus would consume less energy in form of fuel. In addition, due to the reduced sizes of the proposed buildings, less energy would be consumed by the land uses in the form of emergency generators, natural gas combustion, and landscaping activities and indirect energy consumption associated with waste and wastewater generation. In addition, as with the project, Alternative C would be designed to meet LEED version 4 Silver rating, water efficient devices and landscaping, passive heating and cooling design strategies, on-site recycling and composting facilities, electric vehicle charging infrastructure, and TDM measures. Operation of Alternative C would result in reduced amounts of energy consumption compared to the proposed project. Accordingly, project-level and cumulative-level operations energy impacts under Alternative C would be less than significant and less than those of the proposed project. No mitigation would be required.

### 5.7.3.5 Geology and Soils

Under Alternative C, but excavation would be shallower and less extensive, involving only one level of subterranean parking under the three buildings instead of two levels across the proposed project site. In addition, the proposed maximum building height would be 80 feet rather than 120 feet. Otherwise, Alternative C would have the same footprint as well as the same utility improvements and roads as the proposed project. In addition, Alternative C would be constructed at the same location as the proposed project. Furthermore, Alternative C would be subject to the same regulatory requirements as the proposed project.

Because Alternative C would be constructed at the same location as the proposed project, distance to seismic sources and underlying sediments would be the same as for the proposed project. Therefore, impacts related to surface fault rupture, strong seismic ground shaking, and seismic-related ground failure, including liquefaction and landslide, would be the same as the proposed project. In addition, because Alternative C would be constructed on the same underlying sediments as the proposed project, impacts related to expansive soils would be the same as the proposed project.

Because Alternative C would be constructed at the same location and groundwater is close to ground surface, even though Alternative C would involve more shallow excavation than the proposed project, it would nevertheless encounter groundwater and require temporary dewatering and shoring during construction. The extent of dewatering and shoring may be less under Alternative C than under the proposed project. Because Alternative C would be constructed on the same underlying sediments as the proposed project, there would be impacts related to static settlement. However, because the project structure would weigh less under Alternative C because of its shorter height than under the proposed project, overall static settlement may be less.

Alternative C, like the proposed project, would connect to South San Francisco's sewer and stormwater collection and treatment system and would not involve use of septic tanks or alternative wastewater disposal system. The impact relating to soils incapable of supporting alternative wastewater systems would be the same as under the proposed project.

Alternative C would involve excavation to a shallower maximum depth than the proposed project, although it would be constructed at the same location. Because the sensitive Colma Formation extends to a shallow depth, Alternative C has potential to disturb paleontological resources. Because Alternative C would involve shallower excavation than the proposed project, it has correspondingly less likelihood of encountering these resources. The same mitigation to reduce impacts on paleontological resources would be required under Alternative C as under the proposed project.

Cumulative impacts related to geology, soils, and seismicity as well as impacts on paleontological resources would be less than significant with mitigation under Alternative C, and reduced compared to those of the proposed project.

### **5.7.3.6 Greenhouse Gas Emissions**

Under the reduced construction program of Alternative C, less construction activities would be required for the reduced building footprint. This would reduce the construction-related GHG emissions, but would not eliminate the impacts. Mitigation Measure GHG-1 would continue to apply to Alternative C. Alternative C would have a lesser impact than the proposed project's project-level and cumulative-level less-than-significant-with mitigation GHG impacts.

During operation, Alternative C would generate fewer vehicle trips than the proposed project because there would be fewer employees at the project site. In addition, direct emissions generated by emergency generators, natural gas combustion, and landscaping activities and indirect emissions associated with waste and wastewater generation, and water use would be reduced compared to the proposed project because the proposed building would be smaller. Operation of Alternative C would result in reduced operation-related GHG emissions compared to the proposed project. Accordingly, project-level and cumulative-level operations GHG impacts under Alternative C would be less than significant and less than those of the proposed project. No mitigation would be required.

### 5.7.3.7 Hazards and Hazardous Materials

Alternative C would have the same footprint as well as the same utility and road improvements and ultimate land use options as the proposed project, however, excavation under Alternative C would be shallower and less extensive, involving only one level of subterranean parking under the three buildings instead of two levels across the proposed project site. Although Alternative C would require less ground disturbance, it would still require the routine handling of hazardous materials. As such, handling of hazardous materials would still be subject to applicable regulations for both construction and operation. Furthermore, operational use of hazardous materials under the Life Sciences Scenario would be similar to the proposed project. R&D tenants would still be required adhere to all applicable federal, state and local regulations and apply for applicable permits for regulated substances. Impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

Although excavation would be shallower and less extensive, Alternative C would be constructed within the same footprint as the proposed project and therefore, the potential to encounter contaminated soil and/or groundwater during ground disturbance and hazardous building materials during demolition would still exist. As with the proposed project, future development associated with Alternative C would be required to implement recommendations included in various site-specific investigations conducted within the project footprint (prior investigations are detailed in Section 4.8, *Hazards and Hazardous Materials*, of this EIR). As there is a potential for exposure to contaminated soil, contaminated groundwater and hazardous building materials under Alternative C, implementation of Mitigation Measures HAZ-2a through HAZ-2c and HWQ-1 would still be required. Development would also be required to adhere to deed restrictions and DTSC oversight as part of 160 South Linden Avenue. Impacts associated with foreseeable upset and accident conditions involving the release of hazardous materials and Alternative C being located on a Cortese List site would be less than significant.

Alternative C would be implemented in the same footprint as the proposed project; thus, development would be subject to the same ALUCP compatibility criteria, including noise and height restrictions described under Impact HAZ-5 in Section 4.8, *Hazards and Hazardous Materials*, of this EIR. Impacts associated with aviation hazards and excessive noise as a result of Alternative C being located near an airport would be less than significant.

Construction activities would be similar in nature to the proposed project, and thus, construction under Alternative C would still require compliance with City requirements regarding circulation and access and would also require a final inspection by the South San Francisco Fire Department prior to use of the buildings. Similar to the proposed project, R&D tenants under the Life Sciences Scenario under Alternative B would be required to adhere to all applicable regulations (as described under Impact HAZ-6 in Section 4.8, *Hazards and Hazardous Materials*, of this EIR). Adherence to applicable regulations and plans would ensure proper emergency response and evacuation if a release of hazardous materials would occur. Moreover, off-site improvements as part of Alternative C – consisting of roadways, sidewalks, and utility easements along roadways surrounding the project site – would improve roadway circulation and adjacent intersections, resulting in improved access to the project site and the surrounding area. Therefore, impacts associated with impairment or interference of an adopted emergency response plan or emergency evacuation plan would be less than significant.

Alternative C would be developed within the same footprint as the proposed project. Thus, Alternative C would be constructed highly developed industrial area, with no wildlands nearby and would not be susceptible to significant risk of loss, injury or death involving wildland fires. No impact involving wildland fires would occur.

Cumulative impacts related to hazards and hazardous materials would be the same under Alternative C as under the proposed project.

Overall, impacts to hazards and hazardous materials would be less than significant under Alternative C, and reduced compared to the impacts of the proposed project due to the reduced extent of ground disturbance.

### **5.7.3.8 Hydrology and Water Quality**

Under Alternative C, excavation would be shallower and less extensive, involving only one level of subterranean parking under the three buildings instead of two levels across the proposed project site. Otherwise, Alternative C would have the same footprint as well as the same utility improvements and roads as the proposed project. In addition, Alternative C would be constructed at the same location as the proposed project. Furthermore, Alternative C would be subject to the same hydrology and water quality regulatory requirements as the proposed project. Therefore, impacts related to conflicting or obstructing a water quality control plan or sustainable groundwater management plan would be the same as the proposed project.

Because Alternative C would be constructed at the same location as the proposed project, surface water features, water quality conditions, the underlying groundwater basin and conditions, and flood hazards would be the same as for the proposed project. Therefore, impacts related to water quality, alterations in drainage patterns, flooding, or release of pollutants due to project inundation would be the same as the proposed project.

Although Alternative C would involve more shallow excavation than the proposed project, Alternative C would be constructed at the same location and groundwater is close to ground surface. Groundwater would be encountered and require temporary dewatering during construction. The extent of dewatering may be less under Alternative C than under the proposed project. The same mitigation to reduce impacts on groundwater quality during construction dewatering would be required under Alternative B as under the proposed project. Therefore, impacts on water quality would be less than significant with mitigation and reduced compared to the proposed project.

In addition, because infrastructure improvements associated with Alternative C would be similar to those described for the proposed project, impacts related to changes in impervious cover, groundwater recharge, peak storm drain flow, and flood hazards would also be the same. Alternative C, like the proposed project, would connect to South San Francisco's stormwater collection and treatment system. The impact relating to alterations in drainage patterns resulting in erosion or flooding or exceeding the drainage system capacity would be the same as under the proposed project.

Cumulative impacts related to surface water hydrology, water quality, groundwater resources would be the same under Alternative C as under the proposed project.

Overall, impacts to hydrology and water quality would be less than significant with mitigation under Alternative C, and reduced compared to the impacts of the proposed project due to the reduced extent of ground disturbance and excavation.

### 5.7.3.9 Land Use and Planning

Overall, Alternative C would have the same land use impacts, though without providing some of the density benefits, as the proposed project. While Alternative C would change the density at which the program would occur due to the reduced height limit of 80 feet or four stories, it would still involve the same land use program/permitted uses for both Phase 1 and the proposed project as currently proposed under the Specific Plan. Under this alternative, because project layout would remain the same it would not result in a new impact related to the physical division of a community. With a reduced permitted program buildout, this alternative would not further certain City of South San Francisco General Plan policies aimed at maximizing land use, such as policies 2-G-2, 2-G-3 or 2-G-8 (refer to Section 4.10.3.4 in Section 4.10, *Land Use and Planning*, of this EIR for a full description of land use policies). While this alternative does not further these policies by maximizing the land use on the project site, it would not conflict with them. Therefore, and consistent with the EIR findings, Alternative C would not result in an environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Alternative C impacts related to the land use would be less than significant and less the cumulatively considerable, and similar to those of the proposed project.

### 5.7.3.10 Noise and Vibration

Alternative C would involve buildout at reduced height and density in comparison to the proposed project. The amount of net new development would be reduced to approximately 1,404,880 square feet compared to 2,800,000 square feet under the proposed project. Accordingly, the construction schedule for the project may be slightly reduced. However, since the footprint of the proposed structures would not change, overall construction activities near off-site sensitive land uses (e.g., near residences south of Tanforan Avenue) would be similar under Alternative C. In addition, the types of equipment required and the intensity of construction activity near off-site noise-sensitive uses would also be similar. As is the case with the proposed project, construction that occurs during the “daytime hours” defined by the City of San Bruno and the City of South San Francisco would comply with local standards and would result in less-than-significant noise impacts for Alternative C.

Since construction outside of defined “daytime hours” for San Bruno and South San Francisco would be expected for Alternative C (as is the case with the proposed project), construction noise from Specific Plan and for Phase 1 during nighttime hours may be in excess of the applicable criteria for both jurisdictions. As is the case for the proposed project, nighttime construction noise impacts would be considered significant for Alternative C during Phase 1 and for the project as a whole. Implementation of Mitigation Measure NOI-1a, which includes measures to reduce construction noise levels, but not to a less-than-significant level for the reasons stated in the project analysis in Section 4.11, *Noise*, of this EIR. Therefore, Alternative C would reduce but would not avoid the significant and unavoidable project-level and cumulative impacts associated with construction noise for Phase 1 and the project (Impact NOI-1a and Impact C-NOI-1).

With regard to construction haul truck noise, Alternative C would result in similar, or slightly fewer, haul truck trips than the proposed project, and would use the same haul routes as the project. Therefore, as is the case with the proposed project, temporary noise impacts related to haul truck use for the Specific Plan and for Phase 1 would be less than significant.

During operations, Alternative C would generate fewer vehicle trips than the proposed project because there would be fewer employees at the project site. Therefore, traffic noise impacts from Alternative C would be reduced as compared to project-related impacts. As project-related traffic noise impacts were determined to be less than significant, traffic noise impacts from Alternative C would also be less than significant.

Under Alternative C, the types and amount of rooftop heating and cooling equipment would be similar. However, it is possible that equipment would be located closer to adjacent sensitive land uses because the height of the buildings where the equipment is located would be lower. It is therefore possible that noise from this equipment would be slightly greater under Alternative C than under the proposed project. Similar to the proposed project, noise from heating, cooling, and ventilation equipment at the project site may exceed the daytime and nighttime thresholds outlined in the Municipal Codes of the City of South San Francisco and the City of San Bruno and at nearby buildings. Implementation of project Mitigation Measure NOI-1b would reduce this impact to less than significant levels for Alternative C.

With regard to emergency generator testing, Alternative C would be expected to include a similar number and similar sizes of on-site emergency generators. As with the proposed project, even though the testing of emergency generators would be short term (i.e., 30 minutes each time) and intermittent (i.e., approximately once per month), noise from the testing of emergency generators under the Specific Plan and Phase 1 would result in noise levels in excess of applicable municipal code criteria in both San Bruno and South San Francisco. Noise impacts from emergency generator testing would be significant, and mitigation would be required. Implementation of Mitigation Measure NOI-1c would reduce this potentially significant impact related to emergency generator testing noise to a less-than-significant level in both jurisdictions for Alternative C. Similarly, noise from outdoor gathering spaces would be less than significant and the same as the proposed project, while noise associated with parking garages would remain less than significant but reduced compared to the project due to reduced traffic levels.

In addition, with regard to loading docks, Alternative C would result in a similar number (or possibly a slightly lower number) of loading activities as the proposed project. Therefore, as with the proposed project, temporary and short-term increases in noise from project loading activity would not be considered substantial. Impacts related to loading dock noise from the Specific Plan and from Phase 1 would be less than significant.

With regard to damage and annoyance-related vibration impacts, since the proximity of construction activities to nearby residences would be similar under this alternative (e.g. along the western terminus of Tanforan Avenue and the southern perimeter of the project site), vibration impacts would also be similar. Specifically, nighttime construction activities would all occur at least 100 feet from the nearest residences and would generate vibration levels well below the “barely perceptible” level. Daytime construction activities would generally occur at the same approximate distances from off-site residential or commercial/office and industrial buildings. Therefore, as is the case with the proposed project, construction activities for Alternative C would result in vibration levels below the applicable damage criteria for nearby buildings. Annoyance and damage-related vibration impacts would be less than significant for Alternative C.

Overall, noise impacts under Alternative C would remain significant and unavoidable, but would be slightly reduced compared to the project due to the reduced extent of construction. Alternative C would not reduce or avoid the significant and unavoidable project-level and cumulative impacts

associated with construction noise for Phase 1 and the project (Impact NOI-1a and Impact C-NOI-1). Additionally, traffic-related noise under Alternative C would be less than that of the project, and noise from rooftop equipment could be greater due to reduced building heights.

### **5.7.3.11 Population and Housing**

Alternative C would reduce the proposed square footage of new development from 2,800,000 square feet to 1,404,880 square feet. Applying the same generation rates as the proposed project, Alternative C would therefore be expected to generate approximately half the number of employees as the proposed project. Similarly, Alternative C would generate less employee-related population and housing growth than the project. Impacts to population and housing would be less than significant and less than cumulatively considerable, and less than those of the proposed project.

### **5.7.3.12 Public Services**

Alternative C would reduce the proposed square footage of new development from 2,800,000 square feet to 1,404,880 square feet. Applying the same generation rates as the proposed project, Alternative C would therefore be expected to generate approximately half the number of employees as the proposed project. Similarly, Alternative C would generate less employee-related population and housing growth than the project, and less demand for public services. Impacts to public services would be less than significant and less than cumulatively considerable, and less than those of the proposed project.

### **5.7.3.13 Recreation**

Alternative C would reduce the proposed square footage of new development from 2,800,000 square feet to 1,404,880 square feet. Applying the same generation rates as the proposed project, Alternative C would therefore be expected to generate approximately half the number of employees as the proposed project. Similarly, Alternative C would generate less employee-related population and housing growth than the project, and less demand for parks and recreational facilities. Impacts to recreation would be less than significant and less than cumulatively considerable, and less than those of the proposed project.

### **5.7.3.14 Transportation and Circulation**

Alternative C would include the same types of land uses as the proposed project, although at a reduced density. Alternative C would also include the same transportation and circulation improvements as the proposed project. Therefore, like the project, Alternative C would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicyclist, and pedestrian facilities, and impacts would be less than significant.

Given its proximity to transit and location on an infill site, Alternative C would qualify for a presumption of less-than-significant impacts to VMT. Total VMT impacts would be less than significant and reduced compared to those of the proposed project, although VMT per capita would be similar since project employees would likely drive similar distances to/from the project. Similarly, Alternative C would generate fewer vehicle, pedestrian, and bicycle trips, and would result in reduced impacts to freeway queuing, hazards at at-grade rail crossings, and transit and pedestrian crowding, all of which would be less than significant under the proposed project.

Alternative C would have the same access plan as the proposed project. Therefore, impacts related to design hazards and emergency access would be less than significant as with the project.

With regard to the project's significant impact related to design hazards leading to the unsignalized intersection at Huntington Avenue/Herman Street/Forest Lane meeting signal warrants, the proportion of traffic volumes at intersection this would increase as the project gets larger and drivers seek alternative routes to the freeway; under the project, one percent of Phase 1 trips and ten percent of project buildout trips travel through that intersection. With Alternative C, project-related trips through the intersection would be somewhere in between Phase 1 and buildout conditions - about 85 to 90 peak hour trips. This would increase traffic volumes by about five percent at an intersection that already meets the peak hour signal warrant; therefore, Impact TR-3d and Impact C-TR-3d would remain significant and unavoidable under Alternative C, but would be reduced compared to the project at buildout.

### **5.7.3.15 Tribal Cultural Resources**

Alternative C includes similar construction activities as the proposed project. However, the depth of ground disturbance associated with Alternative C is substantially less than the proposed project. Only one level of subterranean parking would be included in Phase 1 of this Alternative, compared to two levels included under the proposed project. Additionally, Alternative C does not include any subterranean parking in future development. Although the depth of ground disturbance would be significantly less, the overall footprint of the project and associated construction remains similar to that of the proposed project, therefore, potential impacts to archaeological resources and human remains that would occur under the proposed project would also occur under Alternative C. These resources can also be considered tribal cultural resources; thus, implementation of Mitigation Measure CR-2a, Cultural Resources Worker Environmental Awareness Program; CR-2b, Halt Construction Activity, Evaluate Find, and Implement Mitigation For Archaeological, Historical, and Tribal Cultural Resources; and CR-3, Halt Construction Activity, Evaluate Remains, and Take Appropriate Action in Coordination with Native American Heritage Commission, would continue to apply to this alternative. Overall, impacts would be less than significant with mitigation, and less than those of the proposed project.

### **5.7.3.16 Utilities and Service Systems**

Alternative C would reduce the proposed square footage of new development from 2,800,000 square feet to 1,404,880 square feet. Applying the same generation rates as the proposed project, Alternative C would therefore be expected to generate approximately half the number of employees as the proposed project. Due to the reduced square footage and reduced employee population, Alternative B's demand for utilities and service systems would be less than that of the project. Impacts to wastewater infrastructure, wastewater treatment capacity, solid waste disposal, and electricity, natural gas, and telecommunications facilities would be less than the impacts of the project, which are less-than-significant. Impacts to storm drainage infrastructure are discussed in Section 5.7.3.8, p. 5-36.

With regard to water supply, as discussed in Section 4.17, *Utilities and Service Systems*, of this EIR, Cal Water's 2020 Urban Water Management Plan (UWMP) for the South San Francisco District forecasts significant water supply shortages (up to 53 percent) during single dry and multiple dry year conditions if the Bay-Delta Plan Amendment is implemented. Alternative C's water demand would exacerbate already-projected deficiencies, though not to the same extent as the project. For

the reasons stated in in Section 4.17, *Utilities and Service Systems*, implementation of Mitigation Measure UTIL-1 and UTIL-2 would reduce Alternative C's impact on water supply to a less-than-significant level.

Alternative C would construct the same utility improvements as the proposed project. Therefore, with construction of the proposed improvements, additional construction or relocation of utility infrastructure would not be required to serve Alternative C.

Overall, impacts to utilities and service systems under Alternative C would be less than significant with mitigation, less than cumulatively contributable with mitigation, and less than those of the project.

## 5.8 Comparison of Alternatives

CEQA Guidelines Section 15126.6 requires a comparison of the alternatives to the project (presented above), and suggests that a matrix may be used to summarize the comparison.

**Table 5-4, p. 5-43**, compares the significant and less than significant with mitigation impacts of the proposed project to those of the alternatives. **Table 5-5, p. 5-47**, compares the ability of the alternatives to meet the objectives of the proposed project.

## 5.9 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires identification of an environmentally superior alternative (i.e., the alternative that has the fewest significant environmental impacts) from among the other alternatives evaluated if the proposed project has significant impacts that cannot be mitigated to a less-than-significant level. If the No Project Alternative (i.e., Alternative A) is found to be the environmentally superior alternative, the EIR must identify an environmentally superior alternative among the other alternatives.

Alternative B, No Intersection Alternative, would not avoid any of the significant and unavoidable impacts of the proposed project or Phase 1. In fact, Impact AQ-2b, C-AQ-2, TR-3d, and C-TR-3d would be increased in severity under this alternative. Furthermore, the alternative would result in two new significant impacts, Impact TR-3b, Freeway Queueing, and Impact TR-5b, Crowding at Pedestrian and Bicycle Facilities, that would not occur under the proposed project. Therefore, Alternative B is not the environmentally superior alternative.

As shown in **Table 5-4, p. 5-43**, Alternative C, Reduced Project Alternative, would reduce, but would not avoid, all of the project's significant and unavoidable impacts. Alternative C also would not result in any new significant and unavoidable impacts. Therefore, Alternative C is the environmentally superior alternative.

Table 5-4. Comparison of Proposed Project’s Significant Impacts to Alternatives’ Impacts

Potential Environmental Impacts	Proposed Project	Alternative A — No Project Alternative	Alternative B —No Intersection Alternative	Alternative C —Reduced Project Alternative
Significant and Unavoidable Impacts				
<b>Impact AQ-2a:</b> Construction of future Precise Plans under the Specific Plan, not including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal (ozone) or state (ozone and particulate matter [PM]) ambient air quality standard during construction.	Significant and Unavoidable	No Impact (Less than Project)	Significant and Unavoidable (Less than Project)	Significant and Unavoidable (Less than Project)
<b>Impact AQ-2b:</b> Project operation, including operation of Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard during operation.	Significant and Unavoidable*	No Impact (Less than Project)	Significant and Unavoidable (Greater than Project)*	Significant and Unavoidable (Less than Project)*
<b>Impact AQ-3:</b> The project and Phase 1 could expose sensitive receptors to substantial pollutant concentrations.	Significant and Unavoidable	No Impact (Less than Project)	Significant and Unavoidable (Similar to Project)	Significant and Unavoidable (Less than Project)
<b>Impact C-AQ-2:</b> The project, inclusive of Phase 1, together with the cumulative projects identified, could result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a non-attainment area under an applicable federal or state ambient air quality standard.	Significant and Unavoidable*	No Impact (Less than Project)	Significant and Unavoidable (Construction: Less than Project; Operations: Greater than Project)*	Significant and Unavoidable (Less than Project)*
<b>Impact C-AQ-3:</b> The project, inclusive of Phase 1, together with cumulative project identified, could expose sensitive receptors to substantial pollutant concentrations.	Significant and Unavoidable	No Impact (Less than Project)	Significant and Unavoidable (Less than Project)	Significant and Unavoidable (Less than Project)
<b>Impact NOI-1a:</b> Project construction would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.	Significant and Unavoidable*	No Impact (Less than Project)	Significant and Unavoidable (Less than Project)*	Significant and Unavoidable (Less than Project)*
<b>Impact C-NOI-1:</b> The project, inclusive of Phase 1, together with the cumulative projects identified 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 the local general plan or noise ordinance or applicable standards of other agencies.	Significant and Unavoidable*	No Impact (Less than Project)	Significant and Unavoidable (Less than Project)*	Significant and Unavoidable (Less than Project)*
<b>Impact TR-3d:</b> The project would contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants.	Significant and Unavoidable	No Impact (Less than Project)	Significant and Unavoidable (Greater than Project)*	Significant and Unavoidable (Less than Project)
<b>Impact C-TR-3D:</b> The project, together with the cumulative projects identified would contribute to existing hazardous conditions due to project-related	Significant and Unavoidable	No Impact (Less than Project)	Significant and Unavoidable (Greater than Project)*	Significant and Unavoidable (Less than Project)

Potential Environmental Impacts	Proposed Project	Alternative A — No Project Alternative	Alternative B —No Intersection Alternative	Alternative C —Reduced Project Alternative
traffic, leading to unsignalized intersections meeting signal warrants.				
Significant Impacts That Can Be Mitigated to a Less-Than-Significant Level				
Impact BIO-1:* The project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Similar to Project)	Less than Significant with Mitigation (Similar to Project)
Impact BIO-4:* The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Similar to Project)	Less than Significant with Mitigation (Similar to Project)
Impact C-BIO-1:* The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on biological resources.	Less than Cumulatively Considerable with Mitigation	No Impact (Less than Project)	Less than Cumulatively Considerable with Mitigation (Similar to Project)	Less than Cumulatively Considerable with Mitigation (Similar to Project)
Impact CR-1:* The project would not cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Less than Project)	Less than Significant with Mitigation (Less than Project)
Impact CR-2:* The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Less than Project)	Less than Significant with Mitigation (Less than Project)
Impact CR-3:* The project would not disturb any human remains, including those interred outside of formal cemeteries.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Less than Project)	Less than Significant with Mitigation (Less than Project)
Impact C-CR-2:* The Project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to significant cumulative impacts on archaeological resources or human remains.	Less than Cumulatively Considerable with Mitigation	No Impact (Less than Project)	Less than Cumulatively Considerable with Mitigation (Less than Project)	Less than Cumulatively Considerable with Mitigation (Less than Project)
Impact EN-1a:* The project would not result in potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Construction: Less than Project; Operations: Greater than Project)	Less than Significant with Mitigation (Less than Project)
Impact GEO-6:* The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Less than Project)	Less than Significant with Mitigation (Less than Project)
Impact C-GEO-2:* The project, inclusive of Phase 1, together with the cumulative projects identified would not result in a cumulatively considerable contribution to significant cumulative impacts on paleontological resources.	Less than Cumulatively Considerable with Mitigation	No Impact (Less than Project)	Less than Cumulatively Considerable with Mitigation (Less than Project)	Less than Cumulatively Considerable with Mitigation (Less than Project)
Impact GHG-1a:* The project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment during construction.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Construction: Less than Project; Operations: Greater than Project)	Less than Significant with Mitigation (Less than Project)

Potential Environmental Impacts	Proposed Project	Alternative A — No Project Alternative	Alternative B —No Intersection Alternative	Alternative C —Reduced Project Alternative
<b>Impact GHG-2:</b> * The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs during construction and operation.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Construction: Less than Project; Operations: Greater than Project)	Less than Significant with Mitigation (Less than Project)
<b>Impact HAZ-2:</b> * The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Less than Project)	Less than Significant with Mitigation (Less than Project)
<b>Impact HAZ-4:</b> * The project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Similar to Project)	Less than Significant with Mitigation (Similar to Project)
<b>Impact HWQ-1:</b> * The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Less than Project)	Less than Significant with Mitigation (Surface Water: Similar to Project; Groundwater: Less than Project)
<b>Impact C-HWQ-1:</b> * The Project, inclusive of Phase 1, together with the cumulative projects identified would not result in a cumulatively considerable contribution to significant cumulative impacts on hydrology and water quality.	Less than Cumulatively Considerable with Mitigation	No Impact (Less than Project)	Less than Cumulatively Considerable with Mitigation (Less than Project)	Less than Significant with Mitigation (Surface Water: Similar to Project; Groundwater: Less than Project)
<b>Impact NOI-1b:</b> * Project operation 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 the local general plan or noise ordinance or applicable standards of other agencies.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant (Greater than Project)	Less than Significant (Mobile Noise: Less than Project; Stationary Noise: Greater than Project)
<b>Impact TR-3b:</b> The project would not substantially increase hazards due to freeway ramp queuing. <sup>a</sup>	Less than Significant	No Impact (Less than Project)	Significant and Unavoidable (Greater than Project)	Less than Significant (Similar to Project)
<b>Impact TR-5b:</b> The project would not have a detrimental impact on bicycle or pedestrian facilities. <sup>a</sup>	Less than Significant	No Impact (Less than Project)	Significant and Unavoidable (Greater than Project)	Less than Significant (Similar to Project)
<b>Impact TCR-1:</b> * The project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the CRHR or in a local register of historical resources, as defined in PRC Section 5020.1(k), or is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Less than Project)	Less than Significant with Mitigation (Less than Project)
<b>Impact C-TCR-1:</b> * The project, inclusive of Phase 1, together with the cumulative projects identified, would not result in a cumulatively considerable contribution to	Less than Cumulatively Considerable with Mitigation	No Impact (Less than Project)	Less than Cumulatively Considerable with Mitigation (Less than Project)	Less than Cumulatively Considerable with Mitigation (Less than Project)

Potential Environmental Impacts	Proposed Project	Alternative A — No Project Alternative	Alternative B —No Intersection Alternative	Alternative C —Reduced Project Alternative
significant cumulative impacts on tribal cultural resources.				
<b>Impact UTIL-2:</b> The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Less than Significant with Mitigation	No Impact (Less than Project)	Less than Significant with Mitigation (Similar to Project)	Less than Significant with Mitigation (Less than Project)
* = Impact is also significant for Phase 1.				
<sup>a</sup> As discussed in Section 5.6, Impact TR-3b, Freeway Queueing, and Impact TR-5b, Crowding at Pedestrian and Bicycle Facilities, would be significant and unavoidable for Alternative B. These impacts would not occur under the proposed project.				

Table 5-5. Ability of Alternatives to Meet Project Objectives

Project Objective	Alternative A — No Project Alternative	Alternative B —No Intersection Alternative	Alternative C — Reduced Project Alternative
<ul style="list-style-type: none"><li>Create a commercial campus development consistent with the General Plan designation for the Specific Plan area.</li></ul>	No	Yes	Yes, but reduced compared to project
Promote the City’s ongoing development of its transit-accessible corridors with high-quality development.	No	Yes, but reduced compared to project	Yes, but reduced compared to project
Establish a commercial campus development with sophisticated, unified architectural and landscape design and site planning, resulting in a distinctive campus identity and strong sense of place.	No	Yes	Yes, but reduced compared to project
Allow for well-designed, flexible buildings and floor plates that can accommodate a variety of commercial building uses over time to ensure that the Specific Plan is responsive to market conditions and demands.	No	Yes	Yes, but reduced compared to project
Establish flexibility to build the proposed project in phases that respond to market conditions.	No	Yes	Yes, but reduced compared to project
Redevelop underutilized parcels within the Specific Plan area to realize the highest and best use of the land by increasing the intensity of land uses.	No	Yes	No
Provide a positive fiscal impact on the local economy through the creation of jobs, enhancement of property values, and generation of property tax and other development fees.	No	Yes	Yes, but reduced compared to project
Provide well-designed retail and publicly available open spaces to increase local participation and usage of the Specific Plan area.	No	Yes	Yes
Create new publicly accessible open spaces, including plazas, courtyards, and green spaces within the Specific Plan area.	No	Yes	Yes
Provide an extensive pedestrian network that links buildings and outdoor recreational spaces through paving, wayfinding signage, street furniture, and lighting.	No	Yes	Yes
Promote alternatives to automobile transportation to further the City’s transportation objectives by emphasizing public transit linkages, TDM, and pedestrian access and ease of movement between buildings.	No	Yes, but reduced compared to project	Yes
Create convenient and safe pedestrian and bike access from the Specific Plan area to the San Bruno BART station and the Centennial Way Trail.	No	No	Yes
Construct a new east-west public street through the Specific Plan area to improve site access and regional roadway circulation, in furtherance of City General Plan policies.	No	No	Yes
Enhance vehicular, bicycle, and pedestrian circulation and access in the area surrounding the Specific Plan area.	No	No	Yes
Work cooperatively with relevant agencies to implement off-site improvements with planned regional circulation and safety improvements.	No	Yes, but reduced compared to project	Yes
Design roadways within and adjacent to the Specific Plan area to ensure that all police, fire, and emergency medical service vehicles can safely and efficiently navigate.	No	Yes, but reduced compared to project	Yes
Incorporate sustainable and environmentally sensitive design and equipment, energy conservation features, water conservation measures and drought-tolerant or equivalent landscaping, and sustainable stormwater management features.	No	Yes	Yes

Pursuant to CEQA Guidelines Section 15126.2, this chapter discusses significant environmental effects that cannot be avoided as identified in this environmental impact report (EIR); significant irreversible environmental changes, including those related to energy and the consumption of nonrenewable resources; and growth-inducing impacts. For a complete summary of the potential environmental impacts that could occur from implementation of the project, refer to Chapter 2, *Executive Summary*. For an evaluation of alternatives that could reduce or avoid the project's significant environmental effects of the project, refer to Chapter 5, *Alternatives*.

## 6.1 Significant Environmental Effects that Cannot Be Avoided

In accordance with CEQA Section 21067 and with CEQA Guidelines Sections 15126(b) and 15126.2(b), the purpose of this section is to identify significant environmental impacts that could not be eliminated or reduced to less than significant levels by implementation of mitigation measures included in the proposed project or identified in Chapter 4, *Environmental Setting, Impacts, and Mitigation*. The findings of significant impacts are subject to final determination by the City of South San Francisco (City) City Council as part of the certification process for this EIR.

Based on the analysis provided in Chapter 4 of this EIR, the following significant and unavoidable impacts were identified for the proposed project and/or Phase 1:

### Air Quality

- **Impact AQ-2a: Construction of future Precise Plans under the Specific Plan, not including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal (ozone) or state (ozone and particulate matter [PM]) ambient air quality standard during construction. (Project: Significant and Unavoidable; Phase 1: Less than Significant with Mitigation)**

**Project:** Construction associated with the new developments that would be permitted under future Precise Plans approved under the proposed Specific Plan (not including Phase 1, which was evaluated separately and found to have a less-than-significant impact) would result in the temporary generation of criteria pollutants (ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>) that could exceed BAAQMD's daily project-level pollutant thresholds. While impacts would be reduced with implementation of Mitigation Measures AQ-1 through AQ-5, emissions of criteria pollutants may not be reduced to levels below BAAQMD's thresholds. In cases where emissions continue to exceed applicable threshold levels after implementation of Mitigation Measures AQ-1 through AQ-5, Mitigation Measure AQ-6 would be required, which requires applicants of future Precise Plans (not including Phase 1) to track all land use development construction activities occurring under the Specific Plan, assess and determine total emissions for all concurrent construction activities (subject to City of South San Francisco [City] review and approval), and coordinate with a third-party or governmental entity to determine the mitigation fees for each development

project's applicant to pay on a pro rata basis to offset pollutant emissions, thereby ensuring that BAAQMD's daily pollutant thresholds would not be exceeded. Based on recent experience regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and that emissions associated with development under future Precise Plans can be reduced to levels below threshold levels. Should offset programs be available for this future development, then project impacts on air quality related to construction 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, the construction air quality impacts of future Precise Plans, including health impacts from construction emissions, are conservatively assumed to be significant and unavoidable.

**Phase 1:** Phase 1 was evaluated separately and found to have a less-than-significant impact with mitigation.

- **Impact AQ-2b: Operation of the Specific Plan, including Phase 1, could result in a cumulatively considerable net increase in criteria pollutants for which the project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard during operation. (Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable)**

**Project:** The Specific Plan includes numerous sustainability design features and objectives to reduce operational emissions, operation of projects developed under the Specific Plan would generate criteria pollutant emissions from area, energy, mobile, and stationary sources that could exceed BAAQMD's daily pollutant thresholds. Through implementation of Mitigation Measure AQ-7, applicants of Precise Plans proposing development that exceeds BAAQMD screening criteria would be required to estimate total emissions for operational activities and pay mitigation fees for any operational emissions that exceed BAAQMD's daily pollutant thresholds. Offsetting emissions to a level below BAAQMD's threshold levels would ensure that development under the Specific Plan would not contribute a significant level of air pollution such that regional air quality within the San Francisco Bay Area Air Basin (SFBAAB) would be degraded. Based on recent precedent regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future and that emissions can be reduced to levels below threshold levels. 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 under the Specific Plan, for the purposes of this EIR analysis, operational air quality impacts for the project, including health impacts from operational emissions, are conservatively assumed to be significant and unavoidable.

**Phase 1:** Operation of Phase 1 would generate ROG and/or NO<sub>x</sub> emissions in excess of BAAQMD thresholds during days on which emergency generator testing would occur. Mitigation Measure AQ-8 limits generator testing to one generator per day. However, even with implementation of Mitigation Measure AQ-8, operation of Phase 1 would still result in criteria pollutant emissions that would exceed BAAQMD's project-level thresholds. Through implementation of Mitigation Measure AQ-7, the Phase 1 applicant would pay mitigation fees to offset pollutant emissions, thereby ensuring that BAAQMD's daily pollutant thresholds would not be exceeded. Offsetting emissions to a level below BAAQMD's threshold levels would ensure that future emissions from

Phase 1 would not contribute a significant level of air pollution such that regional air quality within the SFBAAB would be degraded. Based on recent precedent regarding the offsets feasibly available for other large projects in the San Francisco Bay Area, it is reasonable to assume that offset programs will be available in the future, and that Phase 1 emissions can be reduced to levels below threshold levels. However, because it cannot be concluded that offset programs would always be available in the future at the time and in the amount needed to mitigate Phase 1's annual emissions, for the purposes of this EIR analysis, operational air quality impacts of Phase 1 are conservatively assumed to be significant and unavoidable.

- **Impact AQ-3: Operation of future Precise Plans under the Specific Plan, not including Phase 1, could expose sensitive receptors to substantial pollutant concentrations. (Project: Significant and Unavoidable; Phase 1: Less than Significant with Mitigation)**

**Project:** The project would generate localized criteria pollutants of fugitive dust and CO. During grading and excavation activities associated with construction, localized fugitive dust would be generated. Because BAAQMD's Basic Construction Mitigation Measures would be implemented, per Mitigation Measure AQ-1, construction-related fugitive dust emissions would be less than significant with mitigation and would not expose receptors to substantial pollutant concentrations or risks.

CO impacts were analyzed at the intersection of San Bruno Avenue/El Camino Real, with project CO concentrations summed with background CO levels and compared against the CAAQS and NAAQS. CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient state or federal air quality standards. Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO. Therefore, this impact would be less than significant for the project.

The project would generate toxic air contaminants (TACs) during construction and operation. Specifically, construction activities would generate diesel particulate matter (DPM) and PM<sub>2.5</sub> that could expose adjacent sensitive receptors to health risks in excess of applicable thresholds. Depending on the construction schedule and proximity to receptors, there may be instances where DPM emissions could result in cancer or non-cancer health risks that would exceed BAAQMD thresholds, resulting in a significant impact. The potentially significant impact from the exposure of receptors to DPM during project construction activities would be reduced by Mitigation Measures AQ-1 through AQ-4 and AQ-6, which would reduce fugitive dust through construction BMPs, reduce DPM through Tier 4 engines and model year 2010 engines in clean diesel trucks, and offset any remaining emissions to below BAAQMD thresholds through the purchase of mitigation credits. However, emissions generated by construction activities could still expose receptors to cancer and non-cancer risks in excess of BAAQMD significance thresholds during construction. Mitigation Measure AQ-9 would be required to provide a project-level evaluation of health risks from future projects.

During operation, in the Life Sciences Scenario R&D buildings could involve research activity in wet laboratories and/or require process boilers. The wet laboratories could result in reactive organic gas (ROG) emissions from solvents and chemicals specific to the type of research being conducted (e.g., chemistry, chemical engineering, biological sciences, physical sciences). Similarly, the process could result in ROG emissions of ROG and its constituent gases. Additionally, diesel-fueled generators could expose receptors to PM<sub>2.5</sub> concentrations in excess of BAAQMD significance thresholds during operations. At this time, definitive conclusions regarding localized health risks from future phases cannot be made (Phase 1 was evaluated

separately and found to have a less-than-significant impact with mitigation). Pursuant to Mitigation Measure AQ-9, applicants proposing development of future phases within 1,000 feet of existing sensitive receptors, as defined by BAAQMD (e.g., residential), are required to prepare site-specific construction and operational health risk assessments (HRAs). However, this mitigation measure does not ensure that the evaluations would find less-than-significant impacts. Therefore, it is possible that mitigation to address future project health risks and pollutant concentrations may be inadequate with respect to reducing impacts to levels below BAAQMD thresholds. This impact would be significant and unavoidable.

**Phase 1:** Phase 1 was evaluated separately and found to have a less-than-significant impact with mitigation.

- **Impact C-AQ-2: Construction and operation under the Specific Plan, inclusive of Phase 1, together with the cumulative projects identified, could result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a non-attainment area under an applicable federal or state ambient air quality standard. (Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable)**

**Project and Phase 1:** As discussed under Impact AQ-2a, construction emissions resulting from individual future Precise Plan projects developed under the Specific Plan, not including Phase 1, could exceed BAAQMD's regional ROG, NOx, and PM thresholds. Similarly, as discussed under Impact AQ-2b, long-term operation of individual projects developed under the Specific Plan, including Phase 1, 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, cumulative operational air quality impacts are conservatively assumed to be significant and unavoidable. Both Phase 1 and the project would result in a cumulatively considerable contribution.

- **Impact C-AQ-3: Construction and operation of future Precise Plans under the Specific Plan, not including Phase 1, together with cumulative project identified, could expose sensitive receptors to substantial pollutant concentrations. (Project: Significant and Unavoidable; Phase 1: Less than Cumulatively Considerable)**

**Project:** As stated in Impact C-AQ-2, a significant cumulative impact to the region's existing air quality conditions would occur, which could result in adverse health impacts on sensitive receptors. Therefore, cumulative health impacts are conservatively assumed to be significant and unavoidable. The project would result in a cumulatively considerable contribution.

**Phase 1:** Phase 1, which was evaluated separately and found to have a less-than-significant impact with mitigation, would not have a cumulatively considerable contribution.

## Noise

- **Impact NOI-1a: Project construction would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies. (Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable)**

**Project:** Project construction activities would generate noise at nearby sensitive receptors (i.e., residential and hotel uses). Most construction activities under the project are expected to occur during standard daytime hours for construction, as defined by the South San Francisco and San Bruno Municipal Codes. However, a limited amount of project construction could be necessary outside these daytime hours. Based on modeled noise levels, construction noise from concrete pours and other noise-generating construction activities that would occur outside of daytime hours during Phase 1 would exceed applicable criteria for both the cities of South San Francisco and San Bruno at the residential receptors along Tanforan Avenue. Mitigation Measure NOI-1a, which includes measures to reduce noise from construction activity during all hours (including non-daytime hours) and Mitigation Measure NOI-1b, which includes installation of a temporary noise barrier along the complete length of Tanforan Avenue near the project site, would be implemented to reduce the project's significant impact related to non-daytime construction noise. While these mitigation measures would reduce construction noise effects, it may not be possible to reduce noise levels during all non-daytime construction activities to less-than-significant levels. For example, locating equipment as far as possible from noise-sensitive uses and using equipment with mufflers and sound control devices would reduce noise, but may not reduce noise to below significance criteria. Therefore, this impact is significant and unavoidable.

**Phase 1:** The construction activities that would be closest to sensitive receptors (i.e., the residential uses fronting Tanforan Avenue) would occur during Phase 1. Because construction impact determinations are based on reasonable worst-case construction noise levels at the nearest sensitive uses, Phase 1 construction activities are the focus of the project construction noise and analysis. Therefore, for the reasons stated above in the project analysis summary, construction noise impacts during Phase 1 would be significant and unavoidable even with implementation of Mitigation Measures NOI-1a and NOI-1b.

- **Impact C-NOI-1: The project, inclusive of Phase 1, together with the cumulative projects identified, could 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 the local general plan or noise ordinance or applicable standards of other agencies. (*Project: Significant and Unavoidable; Phase 1: Significant and Unavoidable*)**

**Project:** As described under Impact NOI-1a, project construction would occur mostly during the standard daytime hours for construction, as defined by the South San Francisco and San Bruno Municipal Codes. Similarly, construction for cumulative projects would very likely occur primarily during daytime hours. During these hours, construction noise restrictions are less stringent, and nearby receptors are considered less sensitive to noise. However, some nighttime construction is proposed for the project during Phase 1, including concrete pours, as well as early-morning construction, which may commence prior to the start of "daytime" hours defined by the City of South San Francisco. It is possible that future cumulative projects may also propose construction activities outside standard daytime hours. Should construction of these projects occur concurrently with the proposed project, residential receptors along Tanforan Avenue could be exposed to construction noise during non-exempt hours from both the proposed project and these cumulative projects. While implementation of Mitigation Measure NOI-1a, which includes measures to reduce noise from construction activity during all hours (including non-daytime hours) and Mitigation Measure NOI-1b, which includes installation of a temporary noise barrier along the complete length of Tanforan Avenue near the project site, would be implemented to reduce the project's contribution to cumulative

noise levels, it may not be possible to reduce noise levels during all non-daytime construction activities to less-than-significant levels. Therefore, cumulative construction noise impacts would be significant and unavoidable.

**Phase 1:** The construction activities that would be closest to sensitive receptors (i.e., the residential uses fronting Tanforan Avenue) would occur during Phase 1. Because construction impact determinations are based on reasonable worst-case construction noise levels at the nearest sensitive uses, Phase 1 construction activities are the focus of the project construction noise and analysis. Therefore, for the reasons stated above in the project analysis summary, cumulative construction noise impacts during Phase 1 would be significant and unavoidable even with implementation of Mitigation Measure NOI-1a and Mitigation measure NOI-1b.

## Transportation & Circulation

- **Impact TR-3d: The project would contribute to existing hazardous conditions due to project-related traffic, leading to unsignalized intersections meeting signal warrants. (Project: Significant and Unavoidable; Phase 1: Less than Significant)**

**Project:** As analyzed in Section 4.15, *Transportation and Circulation*, the Huntington Avenue/Herman Street/Forest Lane intersection meets the peak-hour signal warrant under no-project and with-project conditions during the PM peak hour. Phase 1 of the project would add approximately 11 trips to the intersection during the PM peak hour, which is unlikely to change intersection operations materially or exacerbate the risk of collisions relative to 2024 Baseline conditions. However, the project would add approximately 301 PM peak-hour trips, which would affect intersection operations more substantially. The addition of project-related trips may exacerbate the risk of collision at this multi-lane, stop-controlled intersection, which experienced eight reported injury collisions between 2014 and 2019. Therefore, the project would result in a significant impact. Installation of a traffic signal at the Huntington Avenue/Herman Street/Forest Avenue intersection, located in the City of San Bruno, would reduce project impacts to a less-than-significant level. Accordingly, the project's contribution to the impact could be fully mitigated by paying a fair-share contribution toward installation of a traffic signal at this intersection. However, this traffic signal is not presently included in a capital improvement or fee program adopted by the City of San Bruno, and therefore, the City of San Bruno does not have a mechanism for funding this mitigation and cannot ensure this mitigation will be implemented. Additionally, the City of South San Francisco, as lead agency, does not have authority to require completion of this mitigation in the City of San Bruno. There are no other feasible mitigation measures available. The potentially hazardous condition results from a lack of signal control at the intersection; consequently, there are no physical changes (such as modifying lane configurations) or operational changes (such as modifying stop controls) that would address the impact. Therefore, the impact would be significant and unavoidable for the project.

**Phase 1:** Phase 1 was evaluated separately and found to have a less-than-significant impact with no mitigation required.

- **Impact C-TR-3d: The project, together with the cumulative projects identified would contribute to existing hazardous conditions due to project-related traffic, leading to**

**unsignalized intersections meeting signal warrants. (*Project: Significant and Unavoidable; Phase 1: Less than Significant*)**

**Project:** As explained in Impact TR-3d above, the project would result in a significant impact due to the addition of approximately 301 PM peak-hour trips to Huntington Avenue/ Herman Street/Forest Avenue intersection, which would contribute to existing hazardous conditions at the intersection. Therefore, this cumulative impact would be significant and unavoidable, and the project's contribution would be cumulatively considerable.

**Phase 1:** Phase 1 was evaluated separately and found to have a less-than-significant impact with no mitigation required. Therefore, Phase 1's contribution would not be cumulatively considerable.

## 6.2 Significant Irreversible Environmental Changes

In accordance with CEQA Section 21100(b)(2)(B), and CEQA Guidelines Section 15126.2(c), an EIR must identify any significant irreversible environmental changes that could result from implementation of the proposed project. An EIR is required to consider whether "uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or non-use thereafter unlikely" (per CEQA Guidelines Section 15126.2[c]). "Nonrenewable resource" refers to the physical features of the natural environment, such as land, waterways, etc. This may include current or future uses of non-renewable resources and secondary or growth-inducing impacts that commit future generations to similar uses. According to the CEQA Guidelines, irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified.

Chapter 4, *Environmental Setting, Impacts, and Mitigation*, discusses topics that could be affected by irreversible environmental impacts, such as agricultural and forestry resources, biological resources, cultural resources, energy, hydrology, and population and housing. None of these environmental topics were found to have significant impacts as a result of the proposed project, including Phase 1, as it is a component of the overall project.

No significant irreversible environmental damage related to hazardous materials is anticipated to occur with implementation of the proposed project. Compliance with federal, state, and local regulations related to office/research-and-development (R&D) uses, as well as the mitigation measures identified in Section 4.8, *Hazards and Hazardous Materials*, would ensure that the possibility that hazardous substances from the demolition, construction, and operation of the proposed project, including Phase 1, would not cause significant and unavoidable environmental damage.

The proposed project would involve demolition of existing on site buildings, excavation of soils for grading and to accommodate utility trenches, and construction activities to build new structures and subterranean parking garages, installation of the new roadway, infrastructure, and landscaping improvements. Grading would be required for general site preparation, subterranean parking garages, and for proper on-site stormwater flows. However, grading would not be excessive or greater than what is necessary to complete the project and achieve compliance with stormwater requirements.

Construction and implementation of the proposed project would not result in a large commitment of natural resources, require highway improvements to previously inaccessible areas, or cause

irreversible damage due to environmental accidents. No other irreversible permanent changes such as those that might result from construction of a large-scale mining project, hydroelectric dam, or other industrial project would result from development of the proposed project, including Phase 1.

## 6.2.1 Energy and Consumption of Nonrenewable Resources

Section 21100(b)(3) of CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing any inefficient, wasteful, and unnecessary consumption of energy. Implementation of the proposed project would commit future generations to an irreversible commitment of energy resources in the form of usage of nonrenewable fossil fuels due to vehicle and equipment use during demolition, construction, and operation of the proposed project. See Section 4.5, *Energy*, of this EIR, for a discussion of the project's impacts related to electricity, natural gas, and transportation fuel demand. Consumption of nonrenewable resources, other than through energy consumption, may include conversion of agricultural lands to urban uses, and loss of access to mineral reserves. As discussed in Section 4.18.2, *Agriculture and Forestry Resources*, the project site is located in a developed, urban area of the city. No existing agricultural lands would be converted to non-agricultural uses. In addition, as discussed in Section 4.18.3, *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 proposed project would not result in the loss of access to mining reserves.

Resources consumed during demolition, construction, and operation would include lumber, concrete, gravel, asphalt, masonry, metals, and water. Similar to the existing uses on the project site, the proposed project would irreversibly use water and solid waste landfill resources, as described in more detail in section 4.17, *Utilities and Service Systems*. However, the proposed project would not involve a large commitment of resources relative to existing conditions or relative to supply, nor would it consume any of those resources wastefully. Section 4.17, *Utilities and Service Systems*, describes the water supply and demand aspects of the proposed project. As discussed, with implementation of Mitigation Measures UTIL-1 and UTIL-2, the project would result in a less-than-significant impact on water supply, with mitigation.

In addition, the project site is serviced by existing water, wastewater, stormwater, natural gas, electric, telecommunications, and waste and recycling services. New on-site facilities would be connected to new services through the installation of new, localized connections. Expansion of or an increase in capacity of off-site infrastructure would occur as required by the utility providers.

Project construction and operation would require the irreversible commitment of limited, slowly renewable, and non-renewable resources. However, consumption of such resources would not be considered substantial or wasteful. Therefore, for the reasons mentioned above, the proposed project would not result in the wasteful use of energy, water, and other non-renewable resources. Since Phase 1 is a component of the overall project, this discussion of the project's impact on energy and consumption of non-renewable resources accounts for Phase 1.

## 6.3 Growth-Inducing Impacts

As required by CEQA Guidelines Section 15126.2(d), an EIR must consider the ways in which the proposed project could directly or indirectly foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

Growth-inducing impacts can result from the elimination of obstacles to growth; through increased stimulation of economic activity that would, in turn, generate increased employment or demand for housing and public services; or from the implementation of policies or measures that do not effectively minimize premature or unplanned growth.

This section of the EIR discusses the manner in which the project could affect growth in the City 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 understanding 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-inducing impacts such as those associated with job increases that might affect housing and retail demand in other areas over an extended time period are difficult to assess with precision, since future economic and population trends may be influenced by unforeseeable events and business development cycles. Moreover, long-term changes in economic and population growth are often regional in scope; they are not influenced solely by changes in policies or specific development projects. Business trends are influenced by economic conditions throughout the state and country as well as around the world.

Another consideration is that the creation of growth-inducing potential does not automatically lead to growth. Growth occurs through capital investment in new economic opportunities by the private and/or public sector. Investment patterns reflect, in turn, the desires of investors to mobilize and allocate their resources to development in particular localities and regions. A combination of these and other pressures serve to fashion local land use and development policy. The regulatory authority of local governments serves to mediate the growth-inducing potential or pressure created by a project or plan. In South San Francisco, growth is heavily influenced by the biotechnology and R&D industries, and business decisions to pursue new development within the City are generally guided by non-CEQA factors such as proximity to existing infrastructure (e.g., public transportation) and workforce talent. Despite these limitations on the analysis, it is still possible to qualitatively assess the general potential growth-inducing impacts of the proposed project. Because Phase 1 is a component of the overall project, this discussion of the project's growth-inducing impacts accounts for Phase 1.

### 6.3.1 Projected Growth

Development of infrastructure could remove obstacles to population growth if it would allow for development in an area that was not previously considered feasible for development because of infrastructure limitations. As discussed in Section 4.17, *Utilities and Service Systems*, infrastructure improvements required to serve the project would involve the relocation, construction, or expansion of numerous utility facilities within both South San Francisco and San Bruno. This includes the construction of a new public arterial roadway – Southline Avenue – which would be constructed between Huntington and South Linden Avenues as part of Phase 1. However, this new roadway would function as a connection between two existing roads in an urbanized setting, as envisioned by the South San Francisco General Plan, and therefore would not induce population growth. Additionally, the project constitutes infill development within an already existing urban environment, and the other required infrastructure improvements would consist of localized

improvements intended to serve project-related demand. Therefore, these improvements would not extend infrastructure into other unserved or underserved areas and, as such, no indirect impacts related to population growth as a result of expansion of infrastructure would occur.

Section 4.12, *Population and Housing*, discusses population and employment growth as a result of the proposed project. The project would not introduce direct housing or population growth. The project would result in an increase of approximately 10,745 net new employees at the Specific Plan area under development of the Office Scenario (the highest employment-generating buildout scenario). As discussed in Section 4.12, *Population and Housing*, ABAG forecasts that the number of employees working in South San Francisco will increase by 4,635 (10 percent), from 46,365 in 2020 to 51,000 in 2030, and by approximately 3,230 (6.3 percent) between 2030 and 2040. Employees working in the San Francisco-Oakland-Hayward core-based statistical area (CBSA)<sup>1</sup> are projected to increase by approximately 168,255 (6.5 percent) between 2020 and 2030, and by approximately 174,265 (6.3 percent) between 2030 and 2040. The 10,745 employees generated by the project under the Office Scenario would substantially exceed ABAG's employment growth projection for the City by 231.8 percent, but would be well within (6.4 percent) the employment growth projected for the CBSA and the Bay Area<sup>2</sup> as a whole (4.0 percent).

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 on the environment. Furthermore, as discussed in Section 4.12, *Population and Housing*, 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 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 4.2, *Air Quality*; Section 4.7, *Greenhouse Gas Emissions*; Section 4.11, *Noise and Vibration*; Section 4.13, *Public Services*; Section 4.14, *Recreation*; Section 4.15, *Transportation and Circulation*; and Section 4.17, *Utilities and Service Systems*. These sections evaluate whether activities associated with the project's employees would cause significant impacts on the environment.

The net new approximate 10,745 employees generated as a result of the proposed project under the Office Scenario could increase demand for housing and contribute to total overall housing demand citywide. While it is assumed that most of the employees generated by the project would be existing residents in the surrounding region, a portion of the new employees could potentially generate new demand for housing within the City. As discussed in Section 4.12, *Population and Housing*, the Office Scenario ) is expected to generate 838 employees residing in the City of South San Francisco. These employees would generate approximately 559 households and 1,705 residents in the City when accounting for the household populations of anticipated project employees. According to ABAG's *Projections 2040*, households in South San Francisco are projected to increase by approximately 2,795 between 2020 and 2030. Therefore, the addition of 559 new households in the City resulting

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<sup>1</sup> The United States Office of Management and Budget defines a CBSA as a multi-county area anchored by an urban center of at least 10,000 people plus adjacent counties that are socioeconomically tied to the urban center by commuting. The San Francisco-Oakland-Hayward CBSA comprises Alameda, Contra Costa, Marin, San Francisco and San Mateo counties.

<sup>2</sup> The Bay Area is the nine-county region comprising Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

from employment under the Office Scenario would account for approximately 20 percent of the household growth expected in the City from 2020 to 2030. The population in South San Francisco is projected to increase by approximately 8,765 between 2020 and 2030. Therefore, the addition of 1,705 new people in the City resulting from new employee households under the Office Scenario would account for approximately 19.5 percent of the population growth expected in the City from 2020 to 2030. From a regional context, employee-based household and population growth would account for 5.3 percent of the household growth expected in the CBSA and approximately 2.9 percent of the household growth expected in the Bay Area from 2020 to 2030, along with 4.9 percent of the population growth expected in the CBSA and approximately 2.7 percent of the population growth expected in the Bay Area from 2020 to 2030.

Therefore, while the proposed project would indirectly generate additional residential population and households within the City, CBSA, and Bay Area, based on ABAG projections for household and population growth in the City, CBSA, and Bay Area, population and housing growth indirectly resulting from the proposed project would be within the range of anticipated growth for the City and the region. The Phase 1 applicant and applicants of future Precise Plans would be required to pay the Affordable Housing Commercial Linkage Fee, codified in Chapter 8.69 of the South San Francisco Municipal Code, which would contribute to the development of affordable housing in other locations within the City to address the demand for affordable housing that is created by new commercial development and mitigate impacts that accompany new commercial development. Furthermore, while the proposed project would result in an increased unfavorable jobs-housing ratio in the City, continued job growth in the City will promote a greater regional balance between jobs and housing. The City has several residential and mixed-use projects that are either under construction or in the development pipeline, which would add to the City's housing supply and promote a greater regional balance between jobs and housing.

The project would be developed within an area with compatible land uses, consistent with the General Plan designation for the Specific Plan area. Due to the project's close proximity to existing local and regional transportation infrastructure, such as the San Bruno BART station (approximately 0.25 mile), San Bruno Caltrain station (approximately 0.75 mile), South San Francisco Caltrain station (approximately 1.5 miles), multi-use pathways, and other regional transit, in addition to the project's proposed off-site improvements intended to enhance these multi-modal connections, the project would provide new employment opportunities to existing residents within the region as the project would provide access to a variety of transportation options for reaching the project site from throughout the Bay Area.

Overall, the proposed project would be an appropriate land use for the project site, and the indirect population and housing growth resulting from the proposed project would be within the range of anticipated growth for the City, the CBSA, and the Bay Area based on ABAG projections. The project's proposed infrastructure improvements would not generate substantial unplanned population growth.

## **7.1 Lead Agency**

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