City of South San Francisco

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT FOR THE COMMUNITY CIVIC CAMPUS PROJECT

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACM	asbestos-containing materials
ADA	Americans with Disabilities Act
ADWF	average dry weather flow
AIP	Airport Improvement Program
ALUCP	Airport Land Use Compatibility Plan
AWSC	All-way stop-controlled
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BCDC	San Francisco Bay Area Conservation and Development Commission

BMPs	Best Management Practices
BTU	British thermal unit
CAAQS	California Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalRecycle	Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
Cal Water	California Water Service
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
C/CAG	City/County Association of Governments
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CH_4	methane
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California rare plant rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dBA	A-weighted decibel
DOC	California Department of Conservation
DOT	US Department of Transportation
DRRP	Diesel Risk Reduction Plan
DTSC	Department of Toxic Substances Control
ECR/C	El Camino Real/Chestnut Avenue
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
GCP	General construction permit
GHG	Greenhouse gas
HCM	Highway capacity manual
HCP	Habitat conservation plan
HMTA	Hazardous Materials Transportation Act
HR	Human Resources
HUD	US Department of Housing and Urban Development

HVAC	heating, ventilation, and air conditioning
Hz	hertz
IPaC	Information for Planning and Conservation
IPCC	Intergovernmental Panel on Climate Change
ISA	Interim supply allocation
ISL	Interim supply limitation
IT	Information Technology
ITE	Institute of Traffic Engineers
LBP	Lead based paint
LID	Low impact development
LOS	Level of service
mgd	million gallons per day
mph	miles per hour
NAAQS	National ambient air quality standards
NB	north bound
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Completion
NOP	Notice of Preparation
NOx	nitrous oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O_3	ozone
OHP	California Office of Historic Preservation
OPR	California Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
pc/mi/ln	passenger cars per mile per lane
PG&E	Pacific Gas and Electric
PHMSA	Pipeline and Hazardous Material Safety Administration
PM_{10}	coarse particulate matter
$PM_{2.5}$	fine particulate matter
PPV	peak particle velocity
PRC	Public Resources Code
RCRA	Resources Conservation and Recovery Act
RMS	root mean square
ROG	reactive organic gases
RPS	renewables portfolio standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SamTrans	San Mateo County Transit District
SB	south bound
SCS	Sustainable Communities Strategy
SEIR	Subsequent Environmental Impact Report
SFBAAB	San Francisco Bay Area Air Basin
SFO	San Francisco International Airport
SFPUC	San Francisco Public Utilities Commission
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SR	State Route
SSSC	side-street stop-controlled

SWRCB	State Water Resources Control Board
SWPPP	storm water pollution prevention plan
TAC	Toxic Air Contaminant
TDM	Transportation Demand Management
TIA	Transportation Impact Analysis
UBC	Uniform Building Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground storage tank
UWMP	Urban water management plan
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VT	Vehicle Trips
WQCP	Water Quality Control Plant
WWD	Westborough Water District

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0.0 – Executive Summary

This section provides a summary of the Community Civic Campus Project in South San Francisco, identification of the alternatives evaluated in this Draft Subsequent Environmental Impact Report (Draft SEIR), a discussion of comments received from the public, and a summary of the environmental impacts of the project.

ES.1 PURPOSE AND SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

This Draft SEIR provides an analysis of the potential physical environmental effects associated with project implementation, pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000–21177).

The analysis focuses on the physical environmental impacts that could arise from project implementation through the update to the El Camino Real/Chestnut Avenue (ECR/C) Area Plan and construction of the Community Civic Campus Project. The Community Civic Campus Project Draft SEIR is a subsequent environmental impact report. A Subsequent Environmental Impact Report, as described in Section 15162 of the CEQA Guidelines, is prepared under several circumstances, but in this case was prepared because a substantial change is proposed in the previous project, creating new potentially significant impacts.

ES.2 PROJECT CHARACTERISTICS

The project will be located on two separate sites**,** divided by El Camino Real (State Route 82). The eastern project site is bordered on the west by El Camino Real and on the south by Chestnut Avenue. Antoinette Lane divides the eastern project site. The western project site is located on Arroyo Drive between El Camino Real and Camaritas Avenue. The southern boundary of the site abuts commercial uses on Westborough Boulevard.

The project assumes construction of two buildings on the eastern project site: a joint Library and Recreation Center and a Police Station with office space for the City's Information Technology (IT) and Human Resources (HR) staff. The joint Library and Recreation Center would be up to 92,000 square feet in size and would contain space for a variety of uses. For the purposes of CEQA, parking will be evaluated as a combination of surface parking and structured parking. The Police Station with office space for the City's IT and HR staff would be 44,000 square feet. The building would include police administration, operations, investigations and support services, an IT office suite, and an HR office suite.

On the western project site, the existing Municipal Services Building would be demolished (partially or completely) to allow the construction of a new 7,250-square-foot Fire Station 63, which would be located in the site's west corner. Interior spaces would include a drive-through bay for fire engines, a turnout and decontamination area, office space, and living quarters. The building would also include a small patio for employee use.

PROJECT CONSTRUCTION

Project implementation would be completed in up to three phases over 28 months:

Phase I – site remediation and preparation; construction of joint Library and Recreation Center

Phase II – construction of Police Department/IT/HR

Phase III – construction of Fire Station 63

Construction would abide by South San Francisco Municipal Code Section 8.32.050, which limits construction activities to the hours of 8:00 a.m. to 8:00 p.m. Monday through Friday, 9:00 a.m. to 8:00 p.m. on Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. Construction equipment would include heavy equipment such as bulldozers, scrapers, backhoes, excavators, loaders, compactors, rollers, and paving machines.

Construction activities would involve demolition of existing building on the project site, removal of existing vegetation, grading and excavation for building foundations, then building construction.

ES.3 PROJECT ALTERNATIVES SUMMARY

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project which could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. Further, CEQA Guidelines Section 15126.6(e) requires that a "no project" alternative be evaluated in an EIR. The Draft EIR evaluates the following alternatives:

- **Alternative 1 – No Project Alternative.** Alternative 1 would retain the uses included in the existing ECR/C Area Plan, which involves the development of retail space, commercial space, public uses, residential units, and parking on the eastern project site.

- **Alternative 2 – Surface Parking Only Alternative**. Under Alternative 2, the project would be developed with the same structures as the proposed project. The project would not include a parking structure, but instead would expand parking into the public open space area included in the proposed project.

- **Alternative 3 – Underground Parking Alternative.** Under Alternative 3, the project would be developed with the same structures as the proposed project. The project would not include a parking structure, which would be replaced with underground parking below the Library and Community Center building.

ES.4 NOTICE OF PREPARATION

In accordance with CEQA Guidelines Section 15082, the City prepared a Notice of Preparation (NOP) of an SEIR on March 2, 2017. The City was identified as the lead agency for the proposed project. The NOP was circulated to the public, local and state agencies, and other interested parties to solicit comments on the proposed project. The comment period closed on April 3, 2017, but comments received as late as April 20, 2017, were accepted. Concerns raised in response to the NOP were considered during preparation of the Draft SEIR. The NOP and responses by interested parties are presented in **Appendix NOP.**

The City received four comment letters on the project's NOP. A copy of each letter is provided in **Appendix NOP** of this Draft SEIR. The following issues were raised during the comment period:

- **The City/County Association of Governments (C/CAG) of San Mateo County:** C/CAG requested an analysis of project-generated traffic on the San Mateo County Congestion Management Program (CMP) roadway network. C/CAG requested that the scope of the traffic impact analysis (TIA) include a detailed definition of project impacts on CMP intersections, freeway segments, and arterial segments. A TIA was prepared for the project analyzing impacts on intersections and freeway segments. The methodology was in accordance with the requirements from C/CAG's Congestion Management Plan for

2009. Impacts and mitigation measures are discussed in Section 3.10, Transportation and Circulation, and the TIA is included in **Appendix TRA.**

- **San Francisco International Airport:** The Bureau of Planning and Environmental Affairs of San Francisco International Airport informed the City that the project is within Airport Influence Area B of San Francisco International Airport as defined by the Airport Land Use Compatibility Plan (ALUCP). The Airport Land Use Commission can exercise its duties to review proposed land use policy actions within Airport Influence Area B. It was also noted that development must be maintained below defined height limits. Finally, it was noted that while the project area lies outside of the airport's 65 dB CNEL noise contour, departures from the airport will travel over the area and some noise disturbance may occur. Residential uses should meet the interior noise requirements of the 2007 California Building Code and the South San Francisco General Plan. These issues are addressed in Sections 3.7, Hazards and Hazardous Materials; 3.9, Noise; and 3.10, Transportation and Circulation.

- **California Department of Transportation (Caltrans) – District 4:** Caltrans noted that the City would be responsible for all project mitigation including needed improvements to the state transportation network. The project would be responsible for its fair share contribution, financing, scheduling, and implementation responsibilities of mitigation measures. Required roadway improvements should be implemented prior to the issuance of a certificate of occupancy. Caltrans also requested that project-generated traffic and the cost of public transportation improvements be estimated and that funding sources be identified. Caltrans suggested a cultural resource study be undertaken by a qualified archeologist and a qualified architectural historian and that the City consult with Native American tribes per Assembly Bill (AB) 52. Additionally, Caltrans informed the City that an encroachment permit would be required if any work or traffic control takes place in the state right-of-way, and traffic control–related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. These issues are addressed in Sections 3.4, Cultural Resources, and 3.10, Transportation and Circulation.

- **San Francisco Public Utilities Commission (SFPUC) – Natural Resources and Lands Management Division:** The SFPUC requested that the SFPUC right-of-way and facilities be included as part of the existing conditions near the project site. Additionally, the SFPUC requested that a detailed description, site plan, and mapped area of the project footprint be provided in the EIR so the SFPUC could determine all impacts on its lands. If the project is on SFPUC lands, it would be subject to review by the SFPUC Project Review Committee, and the City was encouraged to schedule the project for review at the earliest opportunity. These issues are addressed in Section 2.0, Project Description.

ES.5 SUMMARY OF ENVIRONMENTAL IMPACTS

Table ES-1 displays a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance is indicated both before and after the implementation of each mitigation measure, as applicable.

For detailed discussions of these environmental impacts, refer to the appropriate environmental topic section of this Draft SEIR (i.e., Sections 3.1 through 3.11 and Section 5.0). Project implementation would not generate any significant and unavoidable impacts.

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TABLE ES-1
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
Aesthetics					
Impact 3.1.1	Project implementation would not substantially degrade the visual character or quality of the project area.	LS	None required		LS
Impact 3.1.2	Project implementation would not substantially damage scenic resources within view of a state scenic highway.	N	None required		N
Impact 3.1.3	Project implementation would not substantially degrade the visual character or quality of the project area.	LS	None required		LS
Impact 3.1.4	Project implementation would not create a substantial new source of light or glare in the project area.	LS	None required		LS
Impact 3.1.5	Project implementation would not result in a cumulative impact to aesthetics and visual resources.	LCC	None required		LCC
Air Quality					
Impact 3.2.1	Implementation of the proposed project would not conflict with the BAAQMD's 2017 Clean Air Plan.	LS	None required		LS
Impact 3.2.2	Implementation of the proposed project would not result in an air quality violation with	S	**MM 3.2.2**	During construction activities, the project applicant and/or its contractor shall ensure that all off-road diesel-fueled equipment (e.g., rubber-tired dozers, graders,	LS

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
	mitigation.			scrapers, excavators, asphalt paving equipment, cranes, and tractors) is California Air Resources Board (CARB) Tier 3 Certified or better.	
Impact 3.2.3	The proposed project would not contribute to localized concentrations of mobile-source CO that would exceed applicable ambient air quality standards.	S	Implement mitigation measure MM 3.2.2 as identified above		LS
Impact 3.2.4	Future development would not result in exposure of sensitive receptors to substantial odorous emissions.	LS	None required		LS
Impact 3.2.5	The proposed project, in combination with cumulative development in the SFBAAB, would not result in a cumulatively considerable net increase of criteria air pollutants for which the air basin is designated nonattainment.	CC	Implement mitigation measure MM 3.2.2 as identified above		LCC
Biological Resources					
Impact 3.3.1	Project construction could result in impacts on special-status species, including special-status bats and nesting raptors and other birds.	S	**MM 3.3.1a**	If clearing and/or construction activities would occur during the bird breeding season (typically January through July for raptors and February 15 through August 15 for other birds), a qualified biologist shall conduct preconstruction surveys to identify active nests within 3 days prior to construction initiation, particularly vegetation clearing and ground-disturbing activities. Surveys must be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within the proposed impact area, including construction access routes and a 500-foot buffer (if feasible). If no active nests are found, no further mitigation is required. Surveys shall be repeated if construction activities are delayed or postponed for more than 7 days.	LS

Impact	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
		MM 3.3.1b	If an active nest is located during preconstruction surveys, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is deemed inactive by a qualified biologist. Restrictions shall include establishment of exclusion zones (no ingress of personnel or equipment) at a minimum radius of 300 feet around an active raptor nest and 100 feet around other active bird nest(s). Activities permitted within exclusion zones and the size may be adjusted through consultation with the CDFW.	
		MM 3.3.1c	Vegetation containing active nests that must be removed as part of the project shall be removed during the non-breeding season (August 16 through December 31).	
		MM 3.3.1d	Prior to the removal of any trees or buildings, a qualified biologist shall conduct a bat survey between March 1 and July 31. If bat roosts are identified, the City shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to roosting season (typically May to August) and prior to the start of construction activities. If maternity roosts are identified during the maternity roosting season (typically May to September), they must remain undisturbed until a qualified biologist has determined the young bats are no longer roosting. If roosting is found to occur on-site, replacement roost habitat (e.g., bat boxes) shall be provided to offset the roosting sites removed. If no bat roosts are detected, then no further action is required if the trees and buildings are removed prior to the next breeding season. If removal is delayed, an additional survey shall be conducted 30 days prior to removal to ensure that a new colony has not established itself.	
		MM 3.3.1e	If a female or maternity colony of bats are found on the project site, and the project can be constructed without the elimination or disturbance of the roosting colony (e.g., if the colony roosts in a large tree not planned for removal), a qualified biologist shall determine what	

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
				buffer zones shall be employed to ensure the continued success of the colony. Such buffer zones may include a construction-free barrier of 200 feet from the roost and/or the timing of the construction activities outside of the maternity roosting season (after July 31 and before March 1).	
			MM 3.3.1f	If an active nursery roost is documented on-site and the project cannot be conducted outside of the maternity roosting season, bats shall be excluded from the site after July 31 and before March 1 to prevent the formation of maternity colonies. Nonbreeding bats shall be safely evicted, under the direction of a bat specialist in coordination with the CDFW.	
Impact 3.3.2	There are no riparian habitat or special-status vegetation communities on the project site.	N	None required		N
Impacts 3.3.3	There are no wetlands or waters of the United States on the project site.	N	None required		N
Impact 3.3.4	The project would not result in impacts on the movement of native resident or migratory fish or wildlife species or established migratory corridors.	N	None required		N
Impact 3.3.5	The project may result in the removal of several trees protected under the City of South San Francisco Municipal Code. The project would comply with the provisions in the Municipal Code regarding tree removal permits. In addition, the project would not conflict with General Plan policies regarding natural resources.	LS	None required		LS

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
Impact 3.3.6	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 plan.	N	None required		N
Impact 3.3.7	The project may reduce or restrict the range of an endangered, rare, threatened, or special-status animal or plant species, causing it to drop below self-sustaining levels. As discussed in Impact 3.3.1, special-status species may be affected by the project.	S	Implement mitigation measures MM 3.3.1a through 3.3.1f as identified above		LS
Impact 3.3.8	Cumulative development could result in impacts on biological resources.	CC	Implement mitigation measures MM 3.3.1a through 3.3.1f as identified above		LCC
Cultural Resources					
Impact 3.4.1	Project demolition and construction may have the potential to adversely affect historic resources that appear on state historical inventories or may be eligible for inclusion on such lists.	LS	None required		LS
Impact 3.4.2	Project construction may have the potential to adversely affect undiscovered archaeological resources.	S	**MM 3.4.2a**	An archaeologist approved by the City and meeting the Secretary of the Interior's Standards for Archeology shall conduct a preconstruction meeting for all construction workers who will be disturbing the ground on the eastern project site. The preconstruction meeting shall cover archaeological and tribal cultural resources sensitivity, safety, and next steps if a resource is identified, and shall be conducted on the first day of construction.	LS

Impact	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
		MM 3.4.2b	An archaeologist meeting the Secretary of the Interior's Standards for Archeology shall monitor all ground disturbance on the east project site. If an archaeological resource is identified, the archaeologist will assess the find and evaluate whether it is eligible for inclusion in the California Register of Historical Resources, if applicable.	
		MM 3.4.2c	If deposits of prehistoric or historic period archaeological resources are encountered during project construction on the west project site, all work within 50 feet will be halted until an archaeologist can evaluate the findings and make recommendations. Prehistoric materials can include flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, or quartzite toolmaking debris; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash, and charcoal, shellfish remains, and cultural materials); and stone milling equipment (e.g., mortars, pestles, handstones). Historic period materials might include wood, stone, or concrete footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, metal, glass, ceramics, and other refuse. The City shall consider the mitigation recommendations and agree on implementation of the measure(s) that are feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, or other appropriate measures. After the measures have been put into place, construction activities may resume.	
Impact 3.4.3 Project construction may adversely affect paleontological resources. Ground disturbance has the potential to impact unknown paleontological resources.	S	**MM 3.4.3**	If deposits of paleontological resources are encountered during project construction on the west project site, all work within 50 feet will be halted until a qualified paleontologist can evaluate the findings and make recommendations. Work will not commence until significance of the find has been determined and the find has been evaluated.	LS

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
Impact 3.4.4	Project construction may adversely affect unknown human remains.	LS	None required		LS
Impact 3.4.5	The project, in addition to existing, approved, proposed, and reasonably foreseeable development in the region, could result in cumulative impacts on cultural resources.	CC	Implement mitigation measures MM 3.4.2a, 3.4.2b, MM 3.4.2c, and MM 3.4.3 as identified above		LCC
Geology and Soils					
Impact 3.5.1	Project implementation would not expose people or structures to the rupture of a known earthquake fault.	LS	None required		LS
Impact 3.5.2	Project implementation may expose people or structures to seismic hazards such as ground shaking or liquefaction.	S	**MM 3.5.2**	Prior to construction, the City shall prepare a site-specific geotechnical report for the project site. The report shall contain information regarding liquefaction, landslides, ground shaking, surface faulting, and other geologic hazards. If the report indicates the presence of soil conditions or geologic hazards which, if not corrected, could lead to structural defects, the report shall recommend corrective action that is likely to prevent structural damage to each structure proposed to be constructed. These soil conditions shall include liquefaction potential of the soil and the chance of subsidence and/or soil expansion. The report shall be submitted for approval by the City Engineer, and all recommended corrective actions shall be required to be present in the final project plans.	LS
Impact 3.5.3	Project implementation may result in soil erosion due to construction and operation activities.	LS	None required		LS

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
Impact 3.5.4	The project would be located on unstable soils that would be subject to subsidence, liquefaction, or collapse and could subject foundations and paved areas to potential distress.	S	Implement mitigation measure MM 3.5.2 as identified above		LS
Impact 3.5.5	The project area is located in a seismically active region that puts the area at risk for seismically induced ground shaking, liquefaction, and landslides. The project would not contribute to cumulative soil erosion impacts.	LCC	None required		LCC
Greenhouse Gases and Climate Change					
Impact 3.6.1	The project would not exceed the BAAQMD's service population efficiency threshold.	LS	None required		LS
Impact 3.6.2	The project would not conflict with an applicable plan adopted for the purpose of reducing GHG emissions for the year 2020.	LCC	None required		LCC
Hazards and Hazardous Materials					
Impact 3.7.1	The proposed project would involve the use of hazardous materials during demolition, construction, and operation, but types and amounts would be limited due to the civic campus land uses.	LS	None required		LS
Impact 3.7.2	The proposed project would involve ground disturbance in	S	**MM 3.7.2a**	If project construction will result in soil disturbance or underground utility work where soil will be disturbed,	LS

Impact	Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
locations adjacent to or near known sources of soil and groundwater contamination (western project site) or where there is the potential for contamination from historic uses (eastern project site).			the City shall require that a Phase I Environmental Site Assessment be completed according to ASTM E 1527 (Standard Practice for Environmental Site Assessments). A Phase I ESA shall also be required for any work involving subsurface building structures at the Municipal Services Building due to the presence of soil vapor investigations and monitoring wells on the adjoining parcel to the east. If the Phase I ESA concludes there are no recognized environmental conditions, as defined in ASTM E 1527, work may proceed, but construction drawings shall include a note indicating the potential to encounter previously unknown contamination, as specified in mitigation measure MM 3.7.2b. If the Phase I ESA concludes that a Phase II ESA is required to investigate the extent of known or potential contamination, construction may not occur until a work plan describing remediation and/or necessary site controls has been approved and the site has been remediated to the satisfaction of the regulatory agency with oversight responsibility. The appropriate regulatory agency or agencies will depend on the nature of the contamination and could include the San Mateo County Environmental Health Department, the San Francisco Bay Regional Water Quality Control Board, and/or the California Department of Toxic Substances Control.	
		MM 3.7.2b	If hazardous materials are encountered during construction or accidentally released as a result of construction activities, the following procedures shall be implemented: • The contractor shall stop all work within 100 feet of any discovered contamination or release. • A qualified professional shall determine the scope and immediacy of the problem and recommend control measures. • The City shall be responsible for regulatory	

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
			oversight agency notification as required by state law and regulations. • The City shall commence the necessary investigation and remediation activities to resolve the situation before continuing construction work.	
Impact 3.7.3	The proposed project would demolish Fire Station No. 63 prior to its replacement. If the building contains asbestos or lead-based paint, there is the potential for these materials to be released to the environment.	LS	None required	LS
Impact 3.7.4	The project, in combination with regional development, would result in hazardous materials use and/or potential impacts associated with hazardous materials contamination but the project's contribution would be less than cumulatively considerable with mitigation.	CC	Implement mitigation measures MM 3.7.2a and MM 3.7.2b as identified above	LCC
Hydrology and Water Quality				
Impact 3.8.1	Demolition, construction, and operation of the proposed project would change drainage patterns and generate increased stormwater runoff containing pollutants that could affect water quality. Compliance with existing regulations would reduce this impact to less than significant.	LS	None required	LS
Impact 3.8.2	The proposed project, in	LCC	None required	LCC

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
	combination with regional development, would generate stormwater runoff discharges into Colma Creek, but the project's contribution to stormwater runoff and water quality impacts would be less than cumulatively considerable.				
Noise					
Impact 3.9.1	Noise generation during construction and operations would not exceed standards, nor would it result in an increase in ambient noise levels.	LS	None required		LS
Impact 3.9.2	Project construction would not expose persons to groundborne vibration or noise levels.	LS	None required		LS
Impact 3.9.3	The project is not located near a private airstrip and is outside any noise impact zones for San Francisco International Airport.	N	None required		N
Impact 3.9.4	Project operation would not result in a substantial contribution to cumulative noise levels.	LCC	None required		LCC
Transportation and Circulation					
Impact 3.10.1a	Project traffic would cause Intersection 1 to operate below acceptable levels of service in the AM and PM peak hours.	S	**MM 3.10.1a**	The City shall add an eastbound right turn overlap phase for vehicles going eastbound on Hickey Boulevard and making a right turn onto southbound El Camino Real.	LS
Impact 3.10.1b	Project traffic would cause Intersection 4 to operate below acceptable levels of service in the AM and PM peak hours.	S	**MM 3.10.1b**	The City shall modify the signal timing, as outlined in the TIA, to optimize the cycle length at the intersection of El Camino Real and Chestnut Avenue.	LS

Impact		Level of Significance Without Mitigation	Mitigation Measure		Resulting Level of Significance
Impact 3.10.1c	Intersection 10 would operate below acceptable levels of service in the AM and PM peak hours under the existing plus project scenario.	N	None required		N
Impact 3.10.1d	Project traffic would continue to cause Intersection 12 to operate below acceptable levels of service in the AM and PM peak hours.	S	**MM 3.10.1d**	The City shall modify the signal timing to optimize the cycle length in the AM and PM periods at the intersection of Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard. The City shall also restripe the southbound approach on Junipero Serra Boulevard to one left through lane, one shared through/left turn lane, one through turn lane, and one right turn lane. The City shall also add an eastbound left turn lane and a westbound left turn lane along Westborough Boulevard.	LS
Impact 3.10.2	Project implementation would not change air traffic patterns, increase traffic levels, or change the location of air traffic.	LS	None required		LS
Impact 3.10.3	Project implementation would not increase hazards due to a design feature.	LS	None required		LS
Impact 3.10.4	Project implementation would not result in inadequate emergency access.	LS	None required		LS
Impact 3.10.5	Project implementation would increase motor vehicle traffic and congestion on roadways used by transit, bicyclists, and pedestrians. The project would increase biking and pedestrian usage in the vicinity of the project site.	LS	None required		LS

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.10.6a Project traffic would cause Intersection 1 to continue operating below acceptable levels of service for the AM and PM peak hours with an increase of more than 4 seconds of delay at the intersection.	CC	Implement mitigation measure MM 3.10.1a as identified above	LCC
Impact 3.10.6b Project traffic would cause Intersection 2 to continue operating below acceptable levels of service for the AM peak hour and would cause an increase of more than 4 seconds at the intersection.	CC	**MM 3.10.6b** The City shall modify the signal timing at the intersection of El Camino Real and McLellan Drive to remove split phasing and optimize the cycle length in the AM peak hour. The City shall also restripe the eastbound approach on McLellan Drive to one left turn late and one shared through/right turn lane and restripe the westbound approach on McLellan Drive to one left turn lane, one shared through/right turn lane, and one right turn lane.	LCC
Impact 3.10.6c Project traffic would cause Intersection 4 to operate at below acceptable levels of service for the AM and PM peak hours.	CC	**MM 3.10.6c** The City shall optimize the traffic signal cycle length in both the AM and PM peak hours. The City shall also modify traffic signal operations at the intersection of El Camino Real and Chestnut Avenue to include a right turn overlap phase for vehicles traveling eastbound on Chestnut Avenue. If feasible within the existing right-of-way, the City shall also add an eastbound left turn lane from Chestnut Avenue to El Camino Real.	LCC
Impact 3.10.6d Project traffic would cause Intersection 5 to continue operating below acceptable levels of service for the AM and PM peak periods with an increase of more than 4 seconds of delay at the intersection.	CC	**MM 3.10.6d** The City shall modify the southbound lane geometry on El Camino Real to include a southbound left turn lane.	LCC
Impact 3.10.6e Project traffic would cause Intersection 8 to continue operating below acceptable levels of service for the AM	CC	**MM 3.10.6e** The City shall restripe the eastbound approach of Oak Avenue to be one left turn lane and one shared through/right turn lane. The City shall restripe the westbound approach of Oak Avenue to be one left turn	LCC

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	peak period with an increase of more than 4 seconds of delay at the intersection.		lane and one shared through/right turn lane. The City shall also construct a two-way left turn lane along Mission Road.	
Impact 3.10.6f	Intersection 10 would operate below acceptable levels of service in the AM and PM peak hours under the cumulative (2030) no project scenario.	N	None required	N
Impact 3.10.6g	Project traffic would cause Intersection 12 to continue operating below acceptable levels of service for the AM and PM peak periods with an increase of more than 4 seconds of delay at the intersection.	CC	Implement mitigation measure MM 3.10.1d as identified above	LCC
Utilities and Service Systems				
Impact 3.11.1	Project occupancy would use potable water and would require connections to the existing water distribution infrastructure.	LS	None required	LS
Impact 3.11.2	Project occupancy would generate wastewater and would require connections to existing sewer infrastructure.	LS	None required	LS
Impact 3.11.3	The project would result in stormwater runoff and would require connections to existing infrastructure.	LS	None required	LS
Impact 3.11.4	The proposed project would generate solid waste.	LS	None required	LS
Impact 3.11.5	The project, in combination with regional development,	LCC	None required	LCC

Impact		Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
	would increase the demand for utilities and service systems, but the project's contribution would be less than cumulatively considerable.			
Energy Consumption				
Impact 5.4.1	The project would not use energy in a wasteful manner.	LS	None required	LS
Impact 5.4.2	The proposed project, combined with other related cumulative projects, would not develop land uses and patterns that cause wasteful, inefficient, and unnecessary consumption of energy or construct new or retrofitted buildings that would have excessive energy requirements for daily operation.	LCC	None required	LCC

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1.0 – Introduction

This Draft Subsequent Environmental Impact Report (SEIR) was prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA) and the CEQA Guidelines. As described in CEQA Guidelines Section 15121(a), an environmental impact report (EIR) is a public informational document that assesses the potentially significant environmental impacts of a project.

A Subsequent Environmental Impact Report, as described in Section 15162 of the CEQA Guidelines, is prepared under several circumstances, but in this case was prepared because a substantial change is proposed in the previous project, creating new potentially significant impacts. CEQA requires that an SEIR be prepared by the agency with primary responsibility over the approval of a project (the lead agency). The City of South San Francisco is the lead agency for the proposed Community Civic Campus Project (project). Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible and have the obligation to balance economic, environmental, and social factors.

1.1 PURPOSE OF THE EIR

CEQA requires the preparation of an SEIR prior to approving any project which may have a significant effect on the environment. The City has determined that the proposed project is a project under CEQA.

This Draft SEIR reviews the environmental effects of project implementation. The City has prepared this Draft SEIR for the following purposes:

- To satisfy the requirements of CEQA (Public Resources Code, Sections 21000–21178) and the CEQA Guidelines (California Code of Regulations, Title 4, Chapter 14, Sections 15000–15387).
- To inform the general public, the local community, and responsible and interested public agencies of the project nature, its possible environmental effects, recommended measures to mitigate those effects, and alternatives to the proposed project.
- To evaluate the project's potential significant environmental effects.

CEQA and the CEQA Guidelines charge public agencies, serving as lead agencies on a particular project, with the duty to avoid or substantially lessen significant environmental impacts when feasible. In performing this duty, lead agencies have the obligation to balance the project's significant impacts on the environment with other conditions, including economic, social, technological, legal, and other benefits. This Draft SEIR is an informational document that identifies potentially significant impacts, indicates how these impacts can be avoided or lessened, identifies any significant and unavoidable adverse impacts that cannot be mitigation, and identifies reasonable and feasible alternative to the proposed project that would eliminate any significant adverse environmental impacts or reduce impacts to a less than significant level.

1.2 TYPE OF DOCUMENT

The environmental impact report prepared for the Community Civic Campus Project is a Subsequent EIR. As defined in CEQA Guidelines Section 15162, when an EIR has been certified for a project, a subsequent EIR is to be prepared where substantial changes are proposed in the project that require major revisions of the previous EIR. Substantial changes can occur with respect to the circumstances under which the project is undertaken requiring major revisions of the previous EIR, or when new information of substantial importance, which was not known and

could not have been known, at the time the previous EIR was certified as complete shows new or more severe environmental impacts.

In 2011, the City approved the El Camino Real/Chestnut Avenue (ECR/C) Area Plan. The plan was prepared to guide development in the approximately 98-acre planning area, located along El Camino Real from Southwood Drive to north of Sequoia Avenue. The planning area consisted of areas for low- and high-rise buildings, a mixed-use area, commercial uses, and new civic uses. Environmental impacts were considered in the El Camino Real/Chestnut Avenue Area Plan, associated General Plan Amendment, and Zoning Ordinance Amendment EIR (ECR/C EIR). Since certification of the EIR and adoption of the ECR/C Area Plan in 2011, the City has updated its plans for the area. A new civic center, which would house a library, recreation center, a new police station, and city offices, would be built on land designated as Mixed Use in the existing ECR/C Area Plan. An existing building, the Municipal Services Building, would be demolished and a new fire station and a future mixed-use project are planned on land designated as Public in the existing ECR/C Area Plan. The City's new plan is the Community Civic Campus Project, and the two land areas are designated as the project site. Impacts of the proposed land uses on the project site were not considered in the existing ECR/C EIR.

This SEIR specifically considers whether the proposed project would result in new significant impacts not identified in the 2011 ECR/C EIR, or if the project would cause a substantial increase in the severity of the previously identified significant impacts. The SEIR also discusses any pertinent new information or changes in circumstances that could result in new significant impacts not identified in the ECR/C EIR. Mitigation measures required in the ECR/C EIR are identified and, where appropriate, are clarified, refined, revised, or deleted. This SEIR also identifies whether new mitigation measures are required. The 2011 ECR/C EIR was greater in scope and covered a larger area than the proposed project evaluated in this SEIR. The Community Civic Campus Project covers only a small portion of the original plan area.

1.3 INTENDED USE OF THE SEIR

This Draft SEIR serves several purposes. The City will use the SEIR to evaluate the environmental implications of updating the land use designations within the ECR/C Area Plan and adopting and approving the Community Civic Campus Project. The document may also be used as a source of information by responsible agencies with permitting or approval authority over the project.

1.4 ORGANIZATION AND SCOPE

CEQA Guidelines Sections 15122 through 15132 identify content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The environmental issues addressed in this Draft SEIR were established through review of environmental documentation developed for the project, environmental documentation for nearby projects, and responses to the Notice of Preparation (NOP) and public scoping meeting comments. This Draft SEIR is organized in the following sections:

SECTION ES – EXECUTIVE SUMMARY

This section provides a project narrative and identifies environmental impacts and mitigation measures in a summary table consistent with CEQA Guidelines Section 15123.

SECTION 1.0 – INTRODUCTION

This section provides an overview that describes the intended uses of the SEIR, as well as the review and certification process.

SECTION 2.0 – PROJECT DESCRIPTION

This section provides a detailed description of the proposed project and project objectives, along with background information and physical characteristics consistent with CEQA Guidelines Section 15124.

SECTION 3.0 – ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This section contains analyses relative to each environmental topic. Included in this section is a comprehensive analysis related to impacts and mitigation measures that correspond to project implementation. Each subsection contains a description of the existing setting of the project area. The environmental topics are summarized as follows:

- Impacts Found Not Significant
- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gases and Climate Change
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Transportation and Circulation
- Utilities and Service Systems

SECTION 4.0 – PROJECT ALTERNATIVES

This section discusses alternatives to the proposed project, including the CEQA mandatory "No Project" alternative, that are intended to avoid or reduce significant project environmental impacts.

SECTION 5.0 – OTHER CEQA ANALYSIS

This section contains discussions of significant irreversible environmental changes which would be involved in the proposed project should it be implemented, as well as significant unavoidable environmental effects, including those that can be mitigated but not reduced to a level of insignificance.

SECTION 6.0 – REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the report by name, title, and company or agency affiliation.

APPROACH TO CUMULATIVE IMPACT ANALYSIS

CEQA Guidelines Section 15130 requires that EIRs include an analysis of the project's cumulative impacts when the project's effect is considered cumulatively considerable. Each technical section in the Draft SEIR considers whether the project's effect on anticipated cumulative setting

conditions is cumulatively considerable (i.e., a significant effect). The environmental effects of potential development in South San Francisco in the cumulative impact analysis are discussed in each technical section.

TECHNICAL APPENDICES

The appendices contain all technical material prepared to support the analyses.

1.5 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the SEIR will involve the following general procedural steps:

NOTICE OF PREPARATION

In accordance with CEQA Guidelines Section 15082, the City prepared a Notice of Preparation of an SEIR on March 2, 2017. The City was identified as the lead agency for the proposed project. The NOP was circulated to the public, local and state agencies, and other interested parties to solicit comments on the proposed project. The comment period closed on April 3, 2017 but comments received as late as April 20, 2017 were accepted. Concerns raised in response to the NOP were considered during preparation of the Draft SEIR. The NOP and responses by interested parties are presented in **Appendix NOP.**

DRAFT SEIR

This document constitutes the Draft SEIR. The Draft SEIR contains a description of the project, a description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the Draft SEIR, the City will file the Notice of Completion (NOC) with the Governor's Office of Planning and Research to begin the public review period (Public Resources Code Section 21161).

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the City will provide public notice of the availability of the Draft SEIR for public review and invite comment from the general public, agencies, organizations, and other interested parties. The public review and comment period is required to be a minimum of 45 days. Public comment on the Draft SEIR will be accepted in written form, and by email or mail. Notice of the time and location of the hearing will be published prior to the hearing. All comments or questions regarding the Draft SEIR should be addressed to:

South San Francisco, Planning Division
City Hall, 315 Maple Avenue
South San Francisco, CA 94080
Attention: Tony Rozzi, Senior Planner

RESPONSE TO COMMENTS/FINAL SEIR

Following the public review period, a Final SEIR will be prepared. The Final SEIR will respond to written comments received during the public review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City will review and consider the Final SEIR. If the City finds that the Final SEIR is "adequate and complete," the City may certify the Final SEIR. Upon Final SEIR review and consideration, the City of South San Francisco may act upon the project. A decision to approve the project must be accompanied by written findings in accordance with CEQA Guidelines Sections 15091 and 15093, as applicable. The City is also required to adopt a Mitigation Monitoring and Reporting Program, as described below, for mitigation measures that have been incorporated into or imposed on the project to reduce or avoid significant effects on the environment. The Mitigation Monitoring and Reporting Program will be designed to ensure that these measures are carried out during project implementation.

MITIGATION MONITORING

CEQA Section 21081.6(a) requires lead agencies to adopt a mitigation monitoring and reporting program to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The specific "reporting or monitoring" program required by CEQA is not required to be included in the SEIR; however, it will be presented to the decision-making body for adoption and incorporation into the project.

1.6 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received four comment letters on the project's NOP. A copy of the letter is provided in **Appendix NOP** of this Draft SEIR. The following issues were raised during the comment period:

- **The City/County Association of Governments (C/CAG) of San Mateo County:** C/CAG requested an analysis of project-generated traffic on the San Mateo County Congestion Management Program (CMP) roadway network. C/CAG requested that the scope of the traffic impact analysis (TIA) include a detailed definition of project impacts on CMP intersections, freeway segments, and arterial segments. A TIA was prepared for the project analyzing impacts on intersections and freeway segments. The methodology was in accordance with the requirements from C/CAG's Congestion Management Plan for 2009. Impacts and mitigation measures are discussed in section 3.10, Transportation and Circulation, and the TIA is included in **Appendix TRA.**

- **San Francisco International Airport:** The Bureau of Planning and Environmental Affairs of the San Francisco International Airport informed the city that the project is within Airport Influence Area B of SFO as defined by the Airport Land Use Compatibility Plan (ALUCP). The Airport Land Use Commission can exercise its duties to review proposed land use policy actions within Airport Influence Area B. It was also noted that development must be maintained below defined height limits. Finally, it was noted that while the project area lies outside of the Airport's 65 dB CNEL noise contour, departures from the airport will travel over the area and some noise disturbance may occur. Residential uses should meet interior noise requirements of the 2007 California Building Code and the South San Francisco General Plan. These issues were addressed in sections 3.7 Hazards and Hazardous Materials, 3.9 Noise, and 3.10 Transportation and Traffic.

- **California Department of Transportation – District 4 (Caltrans):** Caltrans noted that the city would be responsible for all project mitigation including needed improvements to the State Transportation network. The project would be responsible for its fair share contribution, financing, scheduling, and implementation responsibilities of mitigation

measures. Required roadway improvements should be implemented prior to the issuance of a certificate of occupancy. Caltrans also requested that project generated traffic and the cost of public transportation improvements be estimated as well as funding sources be identified. Caltrans suggested a cultural resource study be undertaken by a qualified archeologist and a qualified architectural historian and that the city consult with Native American tribes per Assembly Bill (AB) 52. Additionally, Caltrans informed the city that an encroachment permit would be required if any work or traffic control takes place in the State right-of-way, and traffic control related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. These issues were addressed in sections 3.4 Cultural Resources and 3.10 Transportation and Traffic.

- **San Francisco Public Utilities Commission – Natural Resources and Lands Management Division (SFPUC):** The SFPUC requested that the SFPUC right-of-way and facilities be included as part of the existing conditions near the project site. Additionally, SFPUC requested a detailed description, site plan, and mapped area of the project footprint be provided in the EIR so the SFPUC could determine all impacts on its lands. If the project is on SFPUC lands, it would be subject to review by the SFPUC Project Review Committee, and the city was encouraged to schedule the project for review at the earliest opportunity. These issues were addressed in section 2.0 Project Description.

These issues have been analyzed and addressed in the appropriate sections of this SEIR, as indicated above.

2.0 – Project Description

This section of the Draft Subsequent Environmental Impact Report (Draft SEIR) contains the project description. The purpose of the project description is to present the project in a meaningful way to the public, reviewing agencies, and decision-makers. As described in California Environmental Quality Act (CEQA) Guidelines Section 15124, a complete project description must contain the following information: (1) the location and boundaries of the proposed project on a regional and detailed map; (2) a statement of objectives sought by the proposed project; (3) a general description of the proposed project's technical, economic, and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR.

2.1 REGIONAL AND LOCAL SETTING

South San Francisco is located in San Mateo County, which is one of nine counties in the San Francisco Bay Area. San Mateo County covers a large portion of the San Francisco Peninsula, extending along the western shore of the San Francisco Bay and its border with San Francisco County to the north and south to Santa Clara County and Santa Cruz County (**Figure 2.0-1, Regional Vicinity Map**).

The project site is located in the El Camino Real/Chestnut Avenue (ECR/C) Area Plan. The project site is located approximately 2.6 miles northwest of San Francisco International Airport (SFO), approximately 0.5 mile southeast of the South San Francisco BART station, and approximately 8.3 miles south of downtown San Francisco.

The project will be located on two separate sites**,** divided by El Camino Real (State Route 82) (**Figure 2.0-2, Project Location**). The eastern project site is bordered on the west by El Camino Real and on the south by Chestnut Avenue. Antoinette Lane divides the eastern project site.

The western project site is located on Arroyo Drive between El Camino Real and Camaritas Avenue. The southern boundary of the site abuts commercial uses on Westborough Boulevard.

2.2 EXISTING CONDITIONS

The project site, including both the eastern and western sites, totals approximately 8.2 acres. Project land uses by parcel are listed in **Table 2.0-1, Existing Land Uses**.

The eastern project site consists of nine parcels, totaling approximately 6 acres. An existing commercial retail store and surface parking lot are located to the east of Antoinette Lane. The remaining parcels to the west of Antoinette Lane are occupied by a paved area used for parking access to BART and utility building, undeveloped land, and vegetation. Access to BART utility service structure will be maintained**.** Colma Creek, which is channelized in the project area, and the Centennial Way Trail are located on the project site's eastern border.

The western project site measures approximately 2.2 acres and consists of two parcels. The Municipal Services Building, at 33 Arroyo Drive, is a one-story building located on the western project site. The Municipal Services Building houses the South San Francisco Parks and Recreation Department, the South San Francisco Police Department, and South San Francisco Fire Department Station 63. It also includes an underground parking garage, which is accessed from El Camino Real.

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Figure 2.0-1

Regional Vicinity Map

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Figure 2.0-2
Project Location

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TABLE 2.0-1
EXISTING LAND USES

Site	APN	Land Use
Eastern Project Site		
1	011322030	Existing retail store and parking lot
2	010292210	Undeveloped
3	011322030	Undeveloped
4	011326030	Undeveloped
5	093312050	Undeveloped
6	093312060	Undeveloped
7	093330040	Undeveloped
8	093331070	Undeveloped
9	093331080	Undeveloped
Western Project Site		
1	010400100	Paved area/parking lot
2	010400270	Existing Municipal Services Building

SURROUNDING LAND USES

The project site is located in an urban area and surrounded by a variety of land uses. Several commercial areas that include banks, supermarkets, and other retail uses are located to the south of the project area.

Land uses surrounding the eastern project site include a veterinary hospital and multi-family residential development along the eastern boundary of the project site. Multi-family residential uses are located east, across Antoinette Lane, and north, across Mission Road, of the eastern project site boundary. Antoinette Lane ends in a cul-de-sac in the eastern project site, while the Centennial Way Trail extends from the cul-de-sac and flanks and crosses Colma Creek.

Land uses surrounding the western project site include commercial and medium-density multi-family residential uses, across Arroyo Drive. Commercial uses are located directly along the southern border fronting El Camino Real, Westborough Boulevard, and Camaritas Avenue.

The San Francisco Public Utilities Commission (SFPUC) operates the Sunset Supply Line, a water transmission pipeline, near the project site. The pipeline runs parallel to the project site in El Camino Real between Chestnut Avenue and Arroyo Drive. At Arroyo Drive, the pipeline crosses beneath El Camino Real and enters land adjacent to the project site. SFPUC's right-of-way does not extend onto the project site.

EXISTING GENERAL PLAN/SPECIFIC PLAN LAND USE DESIGNATION

The eastern project site is currently designated El Camino Real Mixed Use North and Parks and Recreation in the ECR/C Area Plan. The El Camino Real Mixed Use North designation encompasses most of the eastern project site and is meant to accommodate high-intensity active uses and mixed-use development including retail and department stores, restaurants,

hotels, and offices. The Parks and Recreation designation applies to the existing BART right-of-way and allows for parks, recreation complexes, public golf courses, and greenways.

The western project site is currently designated Public in the ECR/C Plan. This designation provides for schools, libraries, government offices, transit sites, and other facilities that have a unique public character.

EXISTING ZONING

The eastern and western project sites are zoned as ECR/C-MXH (El Camino Real/Chestnut Mixed Use, High Density). This zoning district allows for active uses that are accessible to the general public and contribute to a high level of pedestrian activity. Although the zoning designation is not identical to the General Plan/Specific Plan land use designations, there are no inconsistencies with existing land uses. The current Municipal Services Building uses are permitted in the ECR/C-MXH zoning district.

2.3 PROJECT BACKGROUND

In 2011, the City approved the ECR/C Area Plan. The plan was meant to guide development in the approximately 98-acre planning area. The planning area is located along El Camino Real from Southwood Drive to north of Sequoia Avenue. Existing land uses in the plan area consist of low- and high-rise buildings, mixed-use areas, commercial uses, and new civic uses.

Environmental impacts were analyzed in the ECR/C EIR (SCH No. 2010072015). Since certification of the EIR certification and adoption of the ECR/C Area Plan in 2011, the City has conducted a community input process to identify opportunities for the construction of a Community Civic Campus project on the project site. The City will analyze the necessary update to the existing ECR/C Area Plan to construct 2817682.1 and Fire Station 63. This project scope was not included in the original EIR. Three possible site plan scenarios were identified for the purposes of community input and varied only by the type of parking (surface, underground or structured) and location of parking on-site. For the purposes of the project description, the site plan scenario that includes surface parking and a shared parking structure will constitute the project analyzed in this Draft SEIR. The two other alternative parking scenarios will be considered as Project Alternatives in this Draft SEIR.

2.4 PROJECT DESCRIPTION

The project would demolish one building on the eastern project site and construct new community-serving uses. Additionally, for the purposes of CEQA, the project assumes partial (or complete) demolition of the existing Municipal Services Building on the western project site in order to construct a replacement Fire Station 63. Demolition of any remaining structure on the western project site would occur once a development plan is approved by the City. **Figure 2.0-3, Proposed Project,** shows the locations of the proposed changes. Project actions are described below.

EASTERN PROJECT SITE

The project assumes construction of two buildings on the eastern project site: a joint Library and Recreation Center and a Police Station with office space for the City's Information Technology (IT) and Human Resources (HR) staff.

T:_CS\Work\South San Francisco, City of\157237 Civic Center Planning + CEQA\Figures

Source: City of South San Francisco

Not To Scale

FIGURE 2.0-3
Proposed Project

Michael Baker
INTERNATIONAL

The joint Library and Recreation Center would be up to 92,000 square feet in size and would contain space for a variety of uses. For the purposes of CEQA, parking will be evaluated as a combination of surface parking and structured parking. Uses on the eastern project site would include those listed in **Table 2.0-2, Community Civic Campus Elements.**

TABLE 2.0-2
COMMUNITY CIVIC CAMPUS ELEMENTS*

Type of Space	Purpose and Size
Performance space	• 100-seat theater
Exhibit space	• 300 square feet of gallery space
Social space	• 3,000 square feet of informal social space • Library reading rooms and seating areas for children, teens, and adults • Library collaboration spaces
Program spaces	• 6,000-square foot social hall, frequent rentals • 1,600-square-foot library program room • 1,100-square-foot maker space "Tinker Lab" • 800-square-foot technology lab
Classrooms	• Four large classrooms (1,200 square feet) • Two medium-sized classrooms (1,000 square feet) • One large dance studio (1,600 square feet) • One medium dance studio (800 square feet)
Retail	• 300-square-foot café • 500-square-foot Friends of the Library store
Civic	• 3,000-square-foot council chambers, flexible for City programming and rentals • City Council support spaces
Preschool*	• Three 20-child classrooms • Staff workspace and support space • Secure outdoor play space for 60 children
Staff space	• Library offices and workstations • Parks and Recreation Department offices and workstations • Shared reception, collaboration, and breakout space • Space for future staff growth
Storage and building support	• Building and program storage • Building systems, restrooms
Outdoor space	• Building rooftops: up to 6,000 square feet of usable rooftop area • Events plaza: for day-to-day informal gathering and seating with the ability to host periodic special events for 350–500 people • Meadow: for casual gathering and passive recreation • Centennial Trail: connection to the existing trail with a bike and running path
Parking	• Up to 294 spaces, both underground and aboveground

Source: South San Francisco 2017
Notes: 1.Programming for purposes of CEQA but minor variations possible in final Community Civic Campus Project.*
2. Preschool programming is under consideration for purposes of CEQA but may not be included in final Community Civic Campus Project if alternative locations are identified.

The Police Station with office space for the City's Information Technology (IT) and Human Resources (HR) staff would be 44,000 square feet. The building would include police administration, operations, investigations and support services, an IT office suite, and an HR office suite. Parking would include 161 parking spaces and 5 Police Department bicycle spaces.

Extension of water mains would be required along with service connections to each new building. The extension of the water main would be located in El Camino Real from the south entry of Kaiser Hospital to Chestnut Avenue. Additional sewer lines would be installed to serve the project.

WESTERN PROJECT SITE

The existing Municipal Services Building would be demolished (partially or completely) to allow the construction of a new 7,250-square-foot Fire Station 63, which would be located in the site's west corner. Interior spaces would include a drive-through bay for fire engines, a turnout and decontamination area, office space, and living quarters. The building would also include a small patio for employee use. Fire Station 63 would be staffed by seven employees per shift and would include 15 parking spaces.

The Municipal Services Building is seismically unsafe and is unlikely to be retenanted in its current form. It is unclear at this time whether the Municipal Services Building would be seismically retrofitted or if the building would be demolished to make way for a new use. Because there is no reasonable foreseeable future use of the Municipal Services Building, no analysis of the impacts of future uses is provided in this document. When future uses are proposed, a separate CEQA analysis for those uses will be conducted.

LAND USE PLANNING

The project would be located in a portion of the area covered by the 2011 ECR/C Area Plan. The project would update the land use designations contained in the existing Area Plan to accommodate the new uses, as shown on **Figure 2.0-4, Proposed Land Use Changes.**

The eastern project site would not require land use changes, as the proposed land uses are allowed under current land use designations.

The western project site would be redesignated from Public to El Camino Real Mixed Use North, High Intensity to accommodate the future mixed-use project. This designation is intended to accommodate high-intensity active uses and mixed use development including retail, restaurants, hotels, financial, residential, and other uses. Public uses are permitted in all land use designations in the ECR/C Area Plan, and therefore the proposed fire station would comply with the new designation.

SITE CIRCULATION

The eastern project site would be accessed via Antoinette Lane and Chestnut Avenue. Access to the Library and Recreation Center would be via Antoinette Lane. Access to the Police Station/IT/HR building would be via Chestnut Avenue and Antoinette Lane. No access would be available from El Camino Real.

Fire Station 63 on the western project site would be accessed via Camaritas Avenue.

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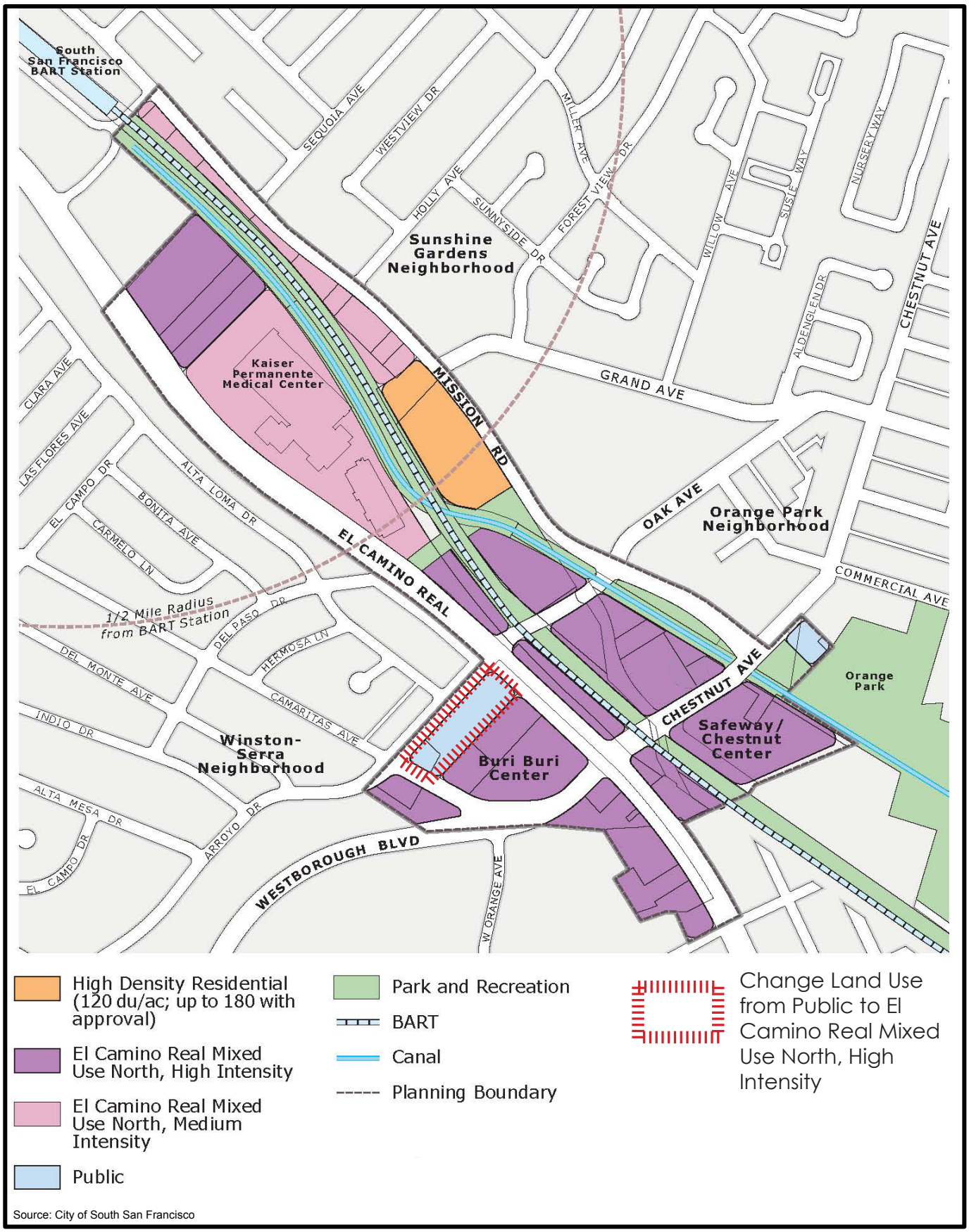

Source: City of South San Francisco

Not To Scale

FIGURE 2.0-4
Proposed Land Use Changes

Michael Baker INTERNATIONAL

PARKING

Surface and structure parking for the eastern project site would be located along Antoinette Lane and shared among Library, Recreation Center, Police Station/IT/HR building users.

Parking for the western project site would be located behind Fire Station 63 and would be accessed from Camaritas Avenue.

CONSTRUCTION

Project implementation would be completed in up to three phases over 28 months: **Table 2.0-3, Construction Phasing and Actions,** describes the activities, equipment, and approximate time frame for each phase.

Phase I – site remediation and preparation; construction of joint Library and Recreation Center;

Phase II – construction of Police Department/IT/HR

Phase III – construction of Fire Station 63

TABLE 2.0-3
CONSTRUCTION PHASING AND ACTIONS

Phase	Duration	Construction Activities
Phase I – Site remediation and preparation; construction of joint Library and Recreation Center	28 months	• Demolition of existing commercial uses • Removal of existing vegetation • Grading of the project roads and construction pads • Excavation/foundations • Podium slab/rough utilities • Rough framing/roofing/exterior • Interior finish/plumbing/electrical • Fixtures/casework/appliances
Phase II – construction of Police Station/IT/HR	12–16 months	• Removal of existing vegetation • Grading of the project roads and construction pads • Installation of project utilities • Excavation/foundations • Podium slab/rough utilities • Rough framing/roofing/exterior • Interior finish/plumbing/electrical • Fixtures/casework/appliances
Phase II – construction of Fire Station 63	12–14 months	• Demolition of existing Municipal Services Building • Removal of existing vegetation • Grading of the project roads and construction pads • Installation of project utilities • Excavation/foundations • Podium slab/rough utilities • Rough framing/roofing/exterior • Interior finish/plumbing/electrical • Fixtures/casework/appliances

Construction would abide by South San Francisco Municipal Code Section 8.32.050, which limits construction activities to the hours of 8:00 a.m. to 8:00 p.m. Monday through Friday, 9:00 a.m. to 8:00 p.m. on Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. Construction equipment would include heavy equipment such as bulldozers, scrapers, backhoes, excavators, loaders, compactors, rollers, and paving machines.

2.5 PROJECT OBJECTIVES

On November 3, 2015, South San Francisco voters approved a half-cent sales tax measure, "Measure W." The measure was structured as a general tax with tax proceeds beginning April 1, 2016, available for any valid governmental purpose.

The information-gathering phase of the ballot measure occurred over 12 months, and consisted of the following: eight community meetings, numerous public surveys, two phone/email surveys and additional public comment. Priorities identified incorporated into the City Council resolution and Measure W ballot wording, including the following related objectives for the Community Civic Campus:

- Maintain public safety and essential services;
- Improve emergency response times, neighborhood patrols, crime prevention programs and gang suppression programs; and
- Provide programs for seniors and disabled residents.

These project objectives/goals are achieved given the joint Library and Recreation Center will provide essential services and programs, and the new modernized Police and Fire Stations will improve public safety.

2.6 RELATIONSHIP OF PROJECT TO OTHER PLANS

CITY OF SOUTH SAN FRANCISCO GENERAL PLAN

The ECR/C Area Plan is an area plan within the South San Francisco General Plan. Updates to the ECR/C Area Plan would need to be consistent with the policies of the City's General Plan.

2.7 PROJECT APPROVALS

The project would require the following approval actions on the part of the City:

- General Plan revisions and updates;
- ECR/C Area Plan revisions and updates;
- Zoning Ordinance revisions and updates; and
- Certification of Subsequent EIR

In addition to the City, there are also federal, regional, and state responsible agencies that may have discretionary authority over specific aspects of the project. These agencies include, but are not limited to:

- San Francisco Bay Regional Water Quality Control Board – Issuance of a National Pollutant Discharge Elimination System (NPDES) permit for construction activities disturbing more than 1 acre and approval of operational stormwater treatment

2.8 REFERENCES

South San Francisco, City of. 2017. Proposed Project Plans.

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3.0 – Less Than Significant Impacts

3.0.1 INTRODUCTION

In the course of evaluating the proposed Community Civic Campus Project, certain impact areas included in the California Environmental Quality Act (CEQA) Appendix G checklist were found to have a less than significant impact or no impact because the project type and location would not create such impacts. This section briefly describes the effects found to have a less than significant impact or no impact on environmental resources in the project area. Note that a number of impacts found to have no impact or a less than significant impact are addressed in the various Draft SEIR sections (Sections 3.1 through 3.11) to provide a more comprehensive discussion as to why impacts are less than significant and to better inform decision-makers and the general public.

This section contains a description of the existing setting, identifies standards of significance, and identifies project-related impacts or the lack thereof.

3.0.2 ENVIRONMENTAL ANALYSIS

AGRICULTURE AND FORESTRY RESOURCES

Based on Appendix G of the State CEQA Guidelines, agriculture and forestry resource impacts are considered to be significant if the project would result in any of the following:

1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.

2) Conflict with existing zoning for agricultural use, or a Williamson Act contract.

3) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).

4) Result in the loss of forestland or conversion of forestland to non-forest use.

5) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use.

Agriculture and Forestry Resources Impacts

Impact 3.0.1 Future development under the proposed project would not impact agriculture and forestry resources. There would be **no impact**.

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, there are no agriculture or forestry resources in the planning area. Therefore, the project analyzed under the original EIR would have no impact on any agriculture and forestry resources (South San Francisco 2011b, p. 3.12-2).

Subsequent Project Impacts

The project site is located in an urbanized area. The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation (2014). There are no Williamson Act contracts on the property (California Department of Conservation 2007). Additionally, no changes have occurred in the planning area since the certification of the ECR/C EIR. Therefore, the proposed project would not involve direct or indirect conversion of farmland to nonagricultural use or conversion of forestland to non-forest use. The revised project would continue to have **no impact**.

Mitigation Measures

None required.

LAND USE AND PLANNING

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact related to land use and planning if it would:

1) Physically divide an established community.

2) Conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

3) Conflict with any applicable habitat conservation plan or natural community conservation plan.

Divide an Established Community

Impact 3.0.2 The project would not result in the physical division of an established community. The impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

As outlined in the ECR/C EIR, the Area Plan would result in a corridor with compatible land uses and similar urban design patterns, resulting in a more cohesive community. Therefore, the project would have a less than significant impact on an established community (South San Francisco 2011b, p. 3.9-7).

Subsequent Project Impacts

The western project site is currently developed with the existing Municipal Services Building and a parking lot. The eastern project site is developed with an existing retail location and a vacant paved area. The existing Municipal Services Building would be demolished and a new fire station would be built on the western portion of the site. The existing retail store on the eastern project site would be demolished and the area would have the Community Civic Campus constructed on it.

The nearest residential areas are located across the street from both sites. The project would change the land use designation of the western project site from Public to ECR/C Mixed Use North,

High Intensity and would construct a public building—the new fire station—on a portion of the eastern project site. The project would also entail the construction of governmental uses on land designated as parkland and mixed use. However, public uses are allowed in these land use designations. The project would be developed with a mix of uses on the eastern project site, and the new construction would fit with these existing uses. Furthermore, the proposed uses would not divide an existing community. As such, the revised project would continue to have a **less than significant** impact.

Mitigation Measures

None required.

Conflict with an Applicable Land Use Plan

Impact 3.0.3 The proposed project would not conflict with the City General Plan or Zoning Ordinance. The project would have **less than significant impact.**

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, the project included the adoption of the specific plan and a zoning update. The EIR found that the project would not conflict with policies or standards in the city (South San Francisco 2011b, p. 3.9-10). Therefore, the original EIR found this to be a less than significant impact.

Subsequent Project Impacts

The project would update the City's General Plan and Zoning Ordinance to allow for the proposed uses. The General Plan land use designation on the western project site would change from Public to ECR/C Mixed Use North, High Intensity. The community civic center would be built on the eastern project site, which has a land use designation of ECR/C Mixed Use North. Public facilities are allowed uses in all land use designations in the ECR/C Area Plan. Additionally, project development would follow all design guidelines and other regulations in the ECR/C Area Plan and the South San Francisco General Plan. Construction activities would be required to comply with the provisions of the City's Zoning Ordinance. The project would not be in conflict with existing City regulations. As such, the revised project would have **no impact,** which is less than the original project.

Mitigation Measures

None required.

Conflict with a Habitat Conservation Plan or Natural Community Conservation Plan

Impact 3.0.4 The project site is not subject to an adopted or proposed habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. As such, the project would have **no impact**.

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, new development under the ECR/C Area Plan would be subject to Municipal Code Chapter 13.30, Tree Preservation. The Area Plan would not change or conflict with the City's Tree Preservation Ordinance. The planning area is not subject to the San Bruno

Mountain Habitat Conservation Plan. There would be no impact with regard to local policies and ordinances and habitat conservation plans (South San Francisco 2011b, p. 3.12-10).

Subsequent Project impacts

The project site is not located in an area with an adopted or proposed habitat conservation plan, natural community conservation plan, or another approved local, regional, or state habitat conservation plan. Therefore, the project would not conflict with any such plan. The revised project would continue to have **no impact**.

Mitigation Measures

None required.

MINERAL RESOURCES

Based on CEQA Guidelines Appendix G, the proposed project would have a significant environmental impact related to mineral resources if it would:

1) 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.

2) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Mineral Resources Impacts

Impact 3.0.5 The proposed project would not impact mineral resources. The project would have **no impact.**

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, mineral resources of value to the region and the residents of the state have not been identified in the planning area. The planning area has not been delineated as a locally important mineral recovery site. Therefore, the proposed project would have no impact on any known mineral resources (South San Francisco 2011b, p. 3.12-2).

Subsequent Project Impacts

According to the South San Francisco General Plan, no areas in the city are designated as having significant mineral resources. Therefore, project implementation would not result in the loss of availability of a known mineral resources or a locally important mineral resource recovery site. As such, the revised project would continue to have **no impact**.

Mitigation Measures

None required.

POPULATION AND HOUSING

According to CEQA Guidelines Appendix G, impacts to population and housing are considered significant if implementation of the project would:

1) Induce substantial 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).

2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Substantial Population Growth

Impact 3.0.6 The proposed project would not result in an increase in the number of residents or housing units in the area over what was anticipated in the ECR/C Area Plan. The impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

The ECR/C EIR estimated the population in the planning area to be 400. With the Area Plan, the planning area's population would grow to approximately 4,800, an increase of 92 percent. It was anticipated that the proposed plan would increase housing by 727 units and population by 2,300 residents above what is projected by the Association of Bay Area Governments (ABAG). Although the population in the planning area was projected to increase substantially, the Area Plan was not considered growth inducing, as it would accommodate almost half of the growth projected for South San Francisco by ABAG. Additionally, because the planning area is located near public transit and has available land, it was determined that the additional growth induced by the plan would be a redistribution of growth from other areas of the city, and not growth on top of what was projected by ABAG (South San Francisco 2011b, p. 5-1).

Subsequent Project Impacts

The project would not induce population growth above what was analyzed in the ECR/C EIR. The land use designation of the western project site, a total of approximately 2.2 acres, would be changed from Public to ECR/C Mixed Use North, High Intensity. A fire station would be constructed on the western project site, but the change in land use designation would allow future housing to be developed on the remaining land. The eastern project site, which is approximately 6.0 acres, is currently designated ECR/C Mixed Use North. Instead of mixed-use development, the site would be developed with the civic center. Because the project would not increase population over what was analyzed in the ECR/C EIR, the project would have a **less than significant** impact.

Mitigation Measures

None required.

Displacement of Housing or People

Impact 3.0.7 The proposed project would not displace substantial numbers of housing or people. The project would have **no impact**.

2011 ECR/C Area Plan Impacts

The ECR/C EIR found that it was possible for residential uses to convert to high density or mixed uses. Any loss of housing units due to conversion of residential uses to high density or mixed uses would be offset because of the significant increase of the total number of dwelling units in the planning area. Therefore, the project would have a less than significant impact (South San Francisco 2011b).

Subsequent Project Impacts

The western project site is currently developed with a parking lot and city offices. The eastern project site is currently a vacant paved lot and a retail location. The project would not displace any existing housing or people and would not require the construction of replacement housing elsewhere. Therefore, the revised project would have **no impact**, which is less than the ECR/C EIR.

Mitigation Measures

None required.

PUBLIC SERVICES

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact related to public services if it would:

1) 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

Fire and Police Protection, Other Public Facilities

Impact 3.0.8 Future development under the proposed project may require additional fire and police protection services. The impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

The population increase from the project would not put South San Francisco over the National Fire Protection Association's standard of one firefighter per 1,000 residents at full buildout, taking into consideration current fire station staffing levels. Therefore, the project had a less than significant impact on fire services (South San Francisco 2011b, p. 3.7-17).

The population at full buildout of the project area would require the addition of 4 police officers based on the standard of 1.5 police officers per 1,000 residents. However, these additional police officers would not require the construction of new facilities. Therefore, the project would have a less than significant impact on police services.

Subsequent Project Impacts

The project would change the land use designation of the western project site from Public to ECR/C Mixed Use North, High Intensity, allowing housing to be developed on the site in the future. The eastern project site would be developed with the proposed civic center. The project would not increase the population over what was analyzed in the ECR/C EIR. Because the population would not increase over the amount analyzed in the ECR/C EIR, impacts on fire, police, and other public facilities would not increase. For impacts on parks, please see the Recreation section below. Therefore, the revised project would continue to have a **less than significant** impact.

Mitigation Measures

None required.

Schools

Impact 3.0.9 Project development may increase the demand for school facilities. The impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

Implementation of the ECR/C Area Plan was estimated to result in an increase in student population in the South San Francisco Unified School District by approximately 70 students. This will increase the projected enrollment to 9,370 students for the year 2022. This student enrollment is below the estimated capacity of 10,701 students and below the 9,393 student enrollment the district is expected to reach in 2017. In addition, new development under the Area Plan will be required to pay a School Facilities Impact Fee. With this requirement and because the district is expected to have sufficient capacity to meet demand for school facilities, a less than significant impact on school facilities is anticipated (South San Francisco 2011b, p. 3.7-16).

Subsequent Project Impacts

The land designation of the western project site would change from Public to ECR/C Mixed Use North, High Intensity. This designation would allow housing to be developed on the western project site in the future. The eastern project site is currently designated as ECR/C Mixed Use North and would be developed into the civic center. The project would not increase the population over what was analyzed in the ECR/C EIR. As stated in the ECR/C EIR, the school system's open capacity could incorporate any increase in the student population from the project. Therefore, the revised project would continue to have a **less than significant** impact.

Mitigation Measures

None required.

RECREATION

Based on State CEQA Guidelines Appendix G, the proposed project would have a significant environmental impact related to recreation if it would:

1) 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.

2) Require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Increased Use of Parks

Impact 3.0.10 The project would potentially result in increased demand for and use of existing parks and other recreational facilities. The project would have a **less than significant** impact.

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, while the Area Plan would increase population in the city, the planned increase in parkland near the planning area would help accommodate the projected increase in population and the number of employees. New parks will limit the physical deterioration of existing parkland. Therefore, the Area Plan would have a less than significant impact (South San Francisco 2011b, p. 3.6-4).

Subsequent Project Impacts

The project would change the land use designation of the western project site from Public to ECR/C Mixed Use North, High Intensity, allowing housing to be developed on the western project site in the future. The project would be developed in the same area covered in the ECR/C EIR. The planned increase in parkland identified in the ECR/C EIR would cover any population increase as a result of project implementation. Additionally, the Community Civic Center Project would include public parkland and open space, as outlined in Section 2.0, Project Description. Therefore, the revised project would continue to have a **less than significant** impact.

Mitigation Measures

None required.

Construction or Expansion of Recreational Facilities

Impact 3.0.11 The project would increase the use of existing recreation and public facilities and increase the demand for such facilities. The impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, the planning area encompasses multiple public facilities. These include the Municipal Services Building and the Joseph A. Fernekes Recreation Building. Demand for recreational and public facilities would be met through implementation of the South San Francisco Parks, Recreation, and Open Space Master Plan. The ECR/C Area Plan would maintain existing facilities, and new facilities would be developed. The project would have a less than significant impact (South San Francisco 2011b, p. 3.6-7).

Subsequent Project Impacts

The existing Municipal Services Building would be demolished. However, the new civic center campus and fire station would expand public facilities in the city. The new fire station, police station, library, classrooms, and city offices would replace and expand the existing facilities. The civic center campus would also increase the amount of open space in the city by adding park space around the campus, and would expand bicycle and pedestrian facilities with a bike and walking path connection to the Centennial Way Trail. Changing the land use designation of the western project site from Public to El Camino Real Mixed Use North, High Intensity would allow mixed-use development on the site. Nonetheless, the increased population would not exceed what was analyzed in the ECR/C EIR. Therefore, the revised project would continue to have a **less than significant** impact.

Mitigation Measures

None required.

TRIBAL CULTURAL RESOURCES

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact related to tribal cultural resources if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, features, 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:

1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5(k); or

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Tribal Cultural Resources Impacts

Impact 3.0.12 The project could indirectly result in the disturbance of undiscovered tribal cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) or unrecorded human remains. The impact would be **less than significant.**

2011 ECR/C Area Plan Impacts

At the time of ECR/C EIR preparation, the CEQA Guidelines did not contain a tribal cultural resources section, as this section was added to the CEQA Guidelines in 2017. This document uses the updated 2017 CEQA Guidelines that include additional standards of significance which were not analyzed in the ECR/C EIR.

Subsequent Project Impacts

As identified in the Section 3.4, Cultural Resources, of this Draft SEIR, historical or archaeological resources were not identified in the project area, including Native American or tribal resources. No tribes have requested consultation with the City in accordance with Assembly Bill 52, and South San Francisco has not designated local significant tribal resources (**Appendix CUL**).

Two archaeological resources were identified near the project site. One, to the north of the project site, is a shell midden site which has been completely disturbed. A past habitation site was discovered and excavated to the east of the eastern project site. The City would implement mitigation measures **MM 3.4.2a, MM 3.4.2b, MM 3.4.2c**(see Section 3.4, Cultural Resources) and would require the project to keep a qualified archaeologist on-site and stop work in case of a cultural resources find.

The project would also comply with the requirements of California Health and Safety Code Section 7050.5(b) related to previously undiscovered cultural and paleontological resources and human remains, and with California Public Resources Code Section 5097.98 protocol if Native American remains are discovered. Therefore, the project would have a **less than significant** impact on undiscovered tribal cultural resources.

Mitigation Measures

No additional mitigation required.

3.0.3 REFERENCES

California Department of Conservation. 2007. San Mateo County Williamson Act FY 2006/2007. http://www.conservation.ca.gov/dlrp/lca.

———. 2014. San Mateo County Important Farmland 2014. http://www.conservation.ca.gov/dlrp/fmmp/Pages/SanMateo.aspx.

South San Francisco, City of. 2011a. *El Camino Real/Chestnut Avenue Area Plan – General Plan Amendment.*

———. 2011b. *City of South San Francisco El Camino Real/Chestnut Avenue Area Plan, and associated General Plan Amendment, and Zoning Ordinance Amendment. Final Environmental Impact Report*.

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3.1 – Aesthetics

This section describes the project area's existing visual character and aesthetic resources and discusses the potential impacts associated with project implementation. Potential visual impacts are studied from a localized context in the area immediately surrounding the eastern and western project sites.

3.1.1 SEIR IMPACT SUMMARY

A summary of the project impact conclusions related to aesthetics is provided below.

Impact Number	Impact Topic	Impact Significance
3.1.1	Have a substantial adverse effect on a scenic vista	Less than significant
3.1.2	Substantially damage scenic resources within a state scenic highway	No impact
3.1.3	Have a substantial adverse effect on the existing visual character of the site and its surroundings	Less than significant
3.1.4	Create a substantial new source of light or glare	Less than significant
3.1.5	Cumulative impacts to visual resources and aesthetics	Less than cumulatively considerable

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.1.4.

3.1.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

The ECR/C Area Plan consists of 98 acres of developed land along El Camino Real in South San Francisco. South San Francisco has views of San Bruno Mountain to the northwest, Skyline Boulevard to the west, and the San Francisco Bay to the east. The city has hills on three sides and flatlands along the San Francisco Bay. The plan area is a transportation route and commercial center that serves as one of South San Francisco's primary corridors. Uses include major employers such as See's Candies and Kaiser Permanente as well as supermarkets, housing, and mass transit infrastructure (the South San Francisco BART station). Views of San Bruno Mountain and Sign Hill are available from the plan area.

The plan area consists of El Camino Real, Chestnut Avenue, and Mission Road. El Camino Real is an eight-lane road with a median, narrow sidewalks, and little pedestrian activity. It is a winding street with an inconsistent character, as some areas have been redeveloped and others have not. Major travel along El Camino Real is by vehicle so the visual experience is limited to what can be seen from inside the vehicle. Chestnut Avenue is an arterial that intersects with El Camino Real and has narrow sidewalks. Mission Road is wide with narrow sidewalks. The street pedestrian and bicycle environment is poorly defined with narrow sidewalks and marginal landscaping. Uses along Mission Road vary and include residential, civic, commercial, and office space. According to the ECR/C EIR, the visual character in the plan area has a lack of continuity and no specific identity.

PROJECT SITE SETTING

Visual Character

Visual character is the overall impression of a landscape created by its unique combination of visual features such as landform, vegetation, water, and structures. Scenic quality is a measure of the degree to which these elements blend to create a landscape that is visually pleasing to a viewer. Viewer sensitivity informs the degree to which changes in visual quality may be considered significant.

The project site is approximately 8.2 acres encompassing two noncontiguous sites. The project site is divided by El Camino Real, as shown on **Figure 2.0-2, Project Location**.

The western project site is approximately 2.2 acres and contains the existing Municipal Services Building, which is a one-story building containing municipal offices and a fire station. The western portion of the site is a surface parking lot. Surrounding land uses include commercial and medium-density multi-family residential lots. Commercial uses are located along the southern border of the site fronting the neighboring streets. The visual character of the western project site is that of a developed urban area with office uses. The existing office building is a repurposed retail store that is designed with a Spanish architectural style with brick arches, earth-toned paint, and a tile roof.

The eastern project site measures approximately 6 acres and is bisected by Antoinette Lane. An existing commercial retail store and parking lot are located to the east of Antoinette Lane. A paved area used for parking access to BART, a utility building, undeveloped land, and vegetation are located to the west. Colma Creek and the Centennial Way Trail are located immediately to the east of the eastern project site. Colma Creek is channelized in the project area. East of Antoinette Lane, the project site's visual character is that of a strip mall, with a parking lot fronting Chestnut Avenue and a retail location set back from the road. West of Antoinette Lane, the project site's visual character is defined by the existing urban vacant lot, with chain-link fences, asphalt paving, and a mixture of ornamental and weedy vegetation.

The project site's visual character is dominated by urban uses. The area is built up, with commercial and single- and multi-family uses that add to the area's visual character as an urban center. Views in the foreground are of developed commercial buildings. Background views are of residential development. The visual characterizes of the area have not significantly changed since the 2011 ECR/C EIR was completed.

Scenic Vistas

The City of South San Francisco General Plan does not officially designate any scenic vistas in the city. However, the project site has views of San Bruno Mountain, which is the northernmost part of the Santa Cruz range. It also has a view of Sign Hill, which is home to a national historic landmark. While the hill can be seen, views of the actual sign from the area are limited due to existing buildings. These visual resources are of regional importance and thus are considered as scenic vistas in this Draft SEIR.

Scenic Routes

There are no officially designated or designated scenic highways in the project vicinity. Interstate 280 (I-280) is approximately 0.9 mile from the project site and is the closest officially designated scenic highway. I-280 is not within view of the project site, nor are there views of the site from the freeway. Additionally, the City's General Plan does not designate any local scenic roads.

Light and Glare

The project site is currently surrounded by development with existing sources of light and glare. Commercial development, private residences, streetlights, and billboards emit visible light near the project site. Building windows of project site and neighboring buildings, as well as the windshields of vehicles passing the project site on adjacent streets, are the major sources of glare in the area.

3.1.3 REGULATORY FRAMEWORK

FEDERAL AND STATE

There are no federal or state laws or regulations that are directly applicable to the project.

LOCAL

City of South San Francisco General Plan

The Land Use and Planning Sub-Areas elements of the General Plan contain the following policies that are relevant to the analysis of air quality impacts:

Chapter 2: Land Use

2-G-1 Preserve the scale and character of established neighborhoods, and protect residents from changes in non-residential areas.

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.

Chapter 3: Planning Sub-Areas

3.4-G-1 Develop El Camino Real as a boulevard, that accommodates its role as a regional corridor but with streetscape and development that provide identify to the street.

3.4-I-1 Work with Caltrans and other agencies to implement the El Camino Real Landscape Conceptual Master Plan for the entire stretch of El Camino Real through South San Francisco

3.4-1-2 Prepare and implement an El Camino Real overlay district in the City's Zoning Ordinance that provides development standards that further El Camino's development as a mixed-use use boulevard, accommodating the need for both auto-oriented uses as well as designated pedestrian-oriented centers. Regulations should include:

- Consistent maximum height of 50 feet regardless of the underlying use, with a maximum height of 80 feet in two areas: the BART station area, and the Chestnut/El Camino Real area;

- No minimum front setback requirements, provided active uses are located adjacent to streets, and performance-oriented building transparency and other standards specified in the Zoning Ordinance are maintained;
- Requirements for awnings, shade, building transparency for designated pedestrian areas; and
- Landscape requirements.

El Camino Real/Chestnut Avenue Area Plan

Section 1.2, Building Heights, establishes an 80-foot maximum building height for the plan area, with 120 feet possible with discretionary approval. Relevant policies include:

H-I Maintain building heights along El Camino Real in concert with those established for the southern portion of the corridor. Allow taller buildings north of Chestnut Avenue, reflecting the area's proximity to BART and open space amenities.

H-2 Establish an overall typical height range between four and six stories, with residential towers reaching up to 12 stories in select locations.

H-3 Require building heights to vary within individual blocks, and do not permit monolithic, bulky developments. Taller towers may be appropriate on all blocks and should be distributed to provide both a dense urban fabric and sufficient open spaces.

Section 1.3, Urban Design and the Public Realm, contains the following policies related to aesthetics:

UD-6 Establish a comprehensive urban design scheme that specifies a palette for landscaping, pedestrian amenities, and architectural features. The scheme should visually unite the entire area, highlight open space and Centennial Way, and signal key destinations to passing vehicular traffic.

UD-8 Require high-quality design that reflects the area's visibility and role as a community destination.

UD-9 Ensure that mid- and high-rise development is slender, and that towers are staggered to allow for sunlight and views into open spaces and from adjacent development.

UD-11 Scale development along pedestrian connections and pedestrian-oriented retail streets to a finer grain with highly articulated facades, changes in materials, ample fenestration and entries. Employ building step-backs to ensure sunlight into open spaces and streets.

UD-20 Design streetscape improvements consistent with Figure 3-5.

UD-21 Create a unique identity for the new Civic District, with distinctive street trees, signage, crosswalk improvements, and other streetscape elements.

UD-22 Integrate parks and plazas throughout new development along pedestrian connections, Centennial Way and Colma Creek to create a cohesive and connected public realm.

UD-23 Emphasize sight lines and access to public spaces and parks via pedestrian connections through development, landscaping, and signage.

UD-24 Equip pedestrian-oriented streets with trees, benches, outdoor seating, kiosks, and other amenities.

The plan's design guidelines include the following policies regarding aesthetics:

DG-1 All buildings above five stories should incorporate a distinct base, middle, and top. The middle of the building should be stepped back from the base an average of 6 to 10 feet and the top should be further distinguished with a step back and/or architectural features.

DG-2 The apparent bulk of a building should be reduced by segmenting it into smaller masses that correspond to the internal function of the building. Repetitive elements or monolithic treatments should be avoided.

DG-3 Adjacent buildings and buildings on the same block should exhibit variation in height and massing.

DG-4 Buildings should establish a street wall that defines the physical space of the street. Along Chestnut Avenue and the Centennial Way pedestrian district, the height of the building base should be consistently 40 to 50 feet.

DG-5 Towers should be spaced to allow sunlight, air, and privacy for tenants while maintaining views and natural light at the street level.

DG-6 Towers should be slender in order to minimize the casting of large shadows and reducing apparent bulk at lower floors. Where large floorplates are necessary on lower floors, middle and upper floors should taper, step back, or otherwise employ a reduction in massing.

DG-7 Buildings should be well articulated by changes in roof heights and vertical planes to reduce the appearance of bulk and create interesting building silhouettes.

DG-8 Buildings should be designed with architectural features and openings that accentuate mid-block pedestrian connections, connections to Centennial Way and Colma Creek, and easy access to structured parking.

DG-9 All building surfaces should be articulated with three-dimensional elements that create a visual play of light and shadow. Building design should incorporate features such as balconies, recesses, signage, reveals, brackets, cornices at the roof and at the top of the ground floor, piers at the corners, and structural bays.

DG-10 Structural and detail elements should be layered to provide visual variety and depth.

DG-11 Buildings should be designed to ensure unified and harmonious facades, integrating all elements, including signs, balconies, and building entrances.

DG-12 Blank walls should be limited along streets, the Centennial Way pedestrian district, and public spaces.

DG-29 Exterior building materials should be brick, stucco, concrete block, painted wood clapboard, painted metal clapboard or other quality, durable materials. A unified palette of materials should be used on all sides of a building.

DG-31 For buildings that front onto Centennial Way, lighter exterior colors with high reflectance should be used to maximize daylight onto the public open space.

DG-32 Glazing should be clear or lightly-tinted and non-reflective.

DG-34 The tower portions of buildings should be lighter with high reflectance, without causing glare, in order to ensure higher daylight levels at streets and sidewalks.

3.1.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. A project is considered to have significant impacts if implementation of the project would:

1) Have a substantial adverse effect on a scenic vista.

2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

3) Substantially degrade the existing visual character or quality of the site and its surroundings.

4) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Changes in the CEQA Guidelines

There have been no changes in the CEQA Guidelines since 2011 that are relevant to the analysis of aesthetics impacts.

METHODOLOGY

The following impact analysis is based on a comparison of impacts from the original ECR/C EIR with potential project impacts.

Generally, the key factors in determining the potential impact on visual character and quality are based on overall visual change/contrast, dominance, and view blockage. An adverse visual impact may occur when a project (1) perceptibly and substantially changes the existing physical features of the landscape that are characteristic of the region or locale; (2) introduces new features to the physical landscape that are perceptibly uncharacteristic of the region or locale or that become visually dominant from common view points; or (3) blocks or completely obscures scenic resources in the landscape.

PROJECT IMPACTS AND MITIGATION MEASURES

Have a Substantial Adverse Effect on a Scenic Vista (Standard of Significance 1)

Impact 3.1.1 Project implementation would not substantially degrade the visual character or quality of the project area. This impact would be **less than significant**.

2011 ECR/C Area Plan EIR Impacts

The ECR /C EIR identified that new development could affect scenic views of San Bruno Mountain and Sign Hill from some viewpoints in the area. However, development standards based on policies in the Area Plan limit tower dimensions and require a minimum tower separation. Design guidelines in the plan would help ensure that views of Sign Hill and San Bruno Mountain would be available. Additionally, such views from public streets and intersections would remain uninterrupted. As such, according to the ECR/C EIR, compliance with the City's Zoning Ordinance and the Area Plan's policies and design guidelines would ensure a less than significant impact on scenic views of Sign Hill and San Bruno Mountain (South San Francisco 2011b, p. 3.8-9).

Subsequent Project Impacts

A scenic vista is typically considered a location from which the public can experience unique and exemplary high-quality views of an area. While not officially designated as scenic vistas, Sign Hill and San Bruno Mountain are local areas of scenic importance. Sign Hill is approximately 0.9 mile to the east of the eastern project site, and San Bruno Mountain is approximately 1.75 miles north.

Sign Hill is clearly visible from the eastern project site, but ornamental trees block a direct view from the western project site. Casual views of San Bruno Mountain are visible from both the eastern and western project sties. Project development on the western project site would not impact views to either scenic vista because the new fire station would not be taller than the existing building. Further, public sight lines along public streets would not be impacted. The new fire station would not change views of these scenic resources and would be similar to existing uses.

Development on the eastern project site would not impact views of Sign Hill as they are only partially visible due to existing trees and development. As such, project development would not further impact such views. Additionally, the project would not modify views from public streets towards Signal Hill.

Views to San Bruno Mountain could be impacted by the new development on the eastern project site. However, views from Antoinette Lane would not be blocked. The proposed development would be placed in a manner that would still allow viewing corridors from public streets. Additionally, the project would comply with height limits in the ECR/C Area Plan, which would reduce impacts on the sight lines. Therefore, the revised project's impact would continue be **less than significant**.

Project buildings would be visible from Sign Hill and San Bruno Mountain. However, the areas surrounding the project sites are developed and new construction would blend with existing structures. Views from both scenic vistas would not be severely impacted, and the revised project's impact would continue to be **less than significant**.

Mitigation Measures

None required.

Substantially Damage Scenic Resources within a State Scenic Highway (Standard of Significance 2)

Impact 3.1.2 Project implementation would not substantially damage scenic resources within view of a state scenic highway. Therefore, the project would have **no impact**.

2011 ECR/C Area Plan EIR Impacts

The ECR/C EIR determined there would be no impact on state scenic highways (South San Francisco 2011b, p. 3.8-7).

Subsequent Project Impacts

There have been no changes to officially designated scenic highways in the project vicinity since certification of the ECR/C EIR. As such, the revised project would continue to have **no impact** on a state scenic highway.

Mitigation Measures

None required.

Have a Substantial Adverse Effect on the Existing Visual Character of the Site and Its Surroundings (Standard of Significance 3)

Impact 3.1.3 Project implementation would not substantially degrade the visual character or quality of the project area. This impact would be **less than significant**.

2011 ECR/C Area Plan EIR Impacts

The ECR/C EIR concluded that implementation of the ECR/C Area Plan would improve the existing visual character of the plan area. The development standards established to govern new construction would be an integrated package of requirements for the street and building interface, land use, building height, and building setbacks. The ECR/C EIR found that these provisions would minimize adverse aesthetic impacts and ensure harmony with the scale and character of existing surrounding development. The plan would implement a comprehensive urban design scheme and implement policies that would ensure common design elements across the planning area. As such, the ECR/C EIR found impacts on the existing visual character would be beneficial (South San Francisco 2011b, p. 3.8-7).

Subsequent Project Impacts

As described above, the existing visual character of the western project site is that of an urban area developed with public office building, designed with a Spanish architectural style. The project would demolish the existing Municipal Services Building, and construct a fire station on a portion of the site. The fire station would retain the visual character of an urban public facility and would include a parking lot. The fire station would be subject to the ECR/C Area Plan's design guidelines and therefore would be consistent with the City's aesthetic vision for the area. The change in land use designation would allow future mixed uses to be developed on the site. Any future project would be subject to the City's design guidelines, and environmental impacts on aesthetics would be reduced through the design review process.

The Community Civic Campus on the eastern project site would result in permanent land use changes on the site. The visual character would change from an urban vacant lot and retail location to public facilities. However the project would be consistent with the visual character of the plan area. Public uses exist in the project vicinity and are allowed in areas with an ECR/C Mixed Use North High Intensity land use designation. The project would be subject to the ECR/C Area Plan's design guidelines, and therefore would be consistent with the City's vision for the area.

Based on the existing visual character of the project site and compliance with the City's design guidelines, the project would not substantially degrade the visual character of the area. As such, the revised project's impact would be **less than significant.**

Mitigation Measures

None required.

Create a Substantial New Source of Light or Glare (Standard of Significance 4)

Impact 3.1.4 Project implementation would not create a substantial new source of light or glare in the project area. This impact would be **less than significant**.

2011 ECR/C Area Plan EIR Impacts

The ECR/C EIR concluded that impacts of the original ECR/C Area Plan from construction and operation as a result of light and glare would be less than significant because the planning area is highly developed and has a number of existing light sources. The ECR/C Area Plan would allow residential uses in the planning area, which may increase the amount of nighttime lighting. Nighttime lighting impacts are significant when they interfere with or intrude into neighboring residences. Light pollution is typically related to the use of high voltage light fixtures with inadequate shields and improper positioning or orientation. Compliance with the City's Zoning Ordinance, which contains general standards for lighting as well as standards that control outdoor artificial light, would reduce potentially significant long-term light and glare impacts to less than significant levels (South San Francisco 2011b, p. 3.8-11).

Subsequent Project Impacts

The eastern project site contains an existing retail location and vacant land. Project construction would add building-mounted outdoor light fixtures, parking lot lights, and light escaping from building windows to the area. Project nighttime light would be similar to the existing conditions on the portion of the site occupied by the existing retail location.

Proposed development on the vacant portion of the project site would increase nighttime lighting and glare. Nonetheless, all new lighting would be subject to the City's Zoning Ordinance, which contains general standards for lighting as well as standards that control outdoor artificial light. Implementation of existing standards would reduce impacts from project nighttime lighting, and therefore the revised project would continue to have a **less than significant** impact.

The project would also include the development of new public uses that would introduce new elements of glare in the project area. Current sources of glare originate from passing cars and from existing structures on and around the project site. The project would entail uses that are similar to those surrounding the project area and would comply with City standards regarding architectural materials. These include design guidelines DG-29, DG-31, DG-32, and DG-34, which

control building materials and the potential glare created by new construction. Therefore, the revised project would continue to have a **less than significant** impact due to glare.

Mitigation Measures

None required.

3.1.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting associated with the project includes the project site in conjunction with other development in the vicinity. Continued growth in the region has the potential to contribute to potential conflicts relative to aesthetics and visual resources.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Visual Resources and Aesthetics

Impact 3.1.5 Project implementation would not result in a cumulative impact to aesthetics and visual resources. The impact would be **less than cumulatively considerable**.

2011 ECR/C Area Plan EIR Impacts

The ECR/C EIR concluded that cumulative aesthetics impacts would be less than significant.

Subsequent Project Impacts

The project would construct the new community civic campus and fire station. As discussed above, the project would not impact the area's visual character and quality. Additionally, all other development in the planning area, the project included, would comply with the City's Zoning Ordinance, plan policies, and design guidelines. As such, the revised project's impact would continue to be **less than cumulatively considerable**.

Mitigation Measures

None required.

3.1.6 REFERENCES

Caltrans (California Department of Transportation). 2017. Officially Designated State Scenic Highways. Accessed February 2017. http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm.

South San Francisco, City of. 2011a. *El Camino Real/Chestnut Avenue Area Plan – General Plan Amendment.*

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———. 2014. *South San Francisco General Plan*.

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3.2 – Air Quality

This section examines the air quality for the project, includes a summary of applicable air quality regulations, and analyzes potential air quality impacts associated with the proposed project.

3.2.1 SEIR IMPACT SUMMARY

A summary of the Community Civic Campus Project impact conclusions related to air quality is provided below.

Impact Number	Impact Topic	Subsequent EIR Impact Significance
3.2.1	Conflict with or obstruct implementation of the 2017 Clean Air Plan	Less than significant
3.2.2	Violate an air quality standard or contribute substantially to an air quality violation during short- or long-term operations	Less than significant with mitigation
3.2.3	Expose sensitive receptors to substantial pollutant concentrations	Less than significant with mitigation
3.2.4	Expose sensitive receptors to odorous emissions	Less than significant
3.2.5	Cumulative air quality impacts	Less than cumulatively considerable with mitigation

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.2.4.

3.2.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

The project area is urbanized with residential, commercial, and institutional land uses, located approximately 2.5 miles west of the San Francisco Bay. The project area is located in the San Francisco Bay Area Air Basin (SFBAAB). Northwest winds are the most common in South San Francisco and occur throughout the year. The persistent winds result in relatively low air pollution as the breeze moves pollutants out of the city.

The US Environmental Protection Agency (EPA) has identified six criteria air pollutants for which state and national health-based ambient air quality standards have been established. These pollutants are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead. PM_{10} and $PM_{2.5}$ consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. The region is nonattainment for federal O_3 and $PM_{2.5}$ standards, as well as for state O_3, PM_{10}, and $PM_{2.5}$ standards (BAAQMD 2015).

PROJECT SITE SETTING

Topography

The SFBAAB's topography is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays. This complex terrain, especially the higher elevations, distorts the normal wind flow patterns in the air basin. Although air pollution potential is strongly influenced by climate and topography, the air pollution that occurs in a location also depends

on the amount of air pollutant emissions in the surrounding area or those that have been transported from more distant places. Air pollutant emissions generally are highest in areas that have high population densities, high motor vehicle use, and/or industrialization. Contaminants created by photochemical processes in the atmosphere, such as ozone, may result in high concentrations many miles downwind from the sources of their precursor chemicals (BAAQMD 2011).

Meteorology and Climate

During the summer, the large-scale meteorological condition that dominates the West Coast is a semi-permanent high-pressure cell over the Pacific Ocean. This high-pressure cell keeps storms from affecting the California coast. Hence, the SFBAAB experiences little precipitation in the summer months. Winds tend to blow onshore out of the north-northwest. Generally in the winter, the Pacific high-pressure cell weakens and shifts southward, winds tend to flow offshore, upwelling ceases, and storms occur. During the winter rainy periods, inversions (layers of warmer air over colder air; see below) are weak or nonexistent, winds are usually moderate, and air pollution potential is low. The Pacific high-pressure cell periodically becomes dominant, bringing strong inversions, light winds, and high pollution potential (BAAQMD 2011).

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San Jose when it meets the East Bay hills. In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes are characterized by nighttime drainage flows in coastal valleys (BAAQMD 2011).

During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing are usually high, and thus pollution levels tend to be low. However, frequent dry periods occur during the winter in which mixing and ventilation are low and pollutant levels build up (BAAQMD 2011).

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold ocean bottom water along the coast. On summer afternoons, the temperatures at the coast can be 35°F cooler than temperatures 15 to 20 miles inland. At night, this contrast usually decreases to less than 10°F.

In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime, the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large (BAAQMD 2011).

Peninsula Climatological Subregion

Eleven major climatological subregions make up the SFBAAB. South San Francisco is located in the Peninsula climatological subregion of the San Francisco Bay Area Air Basin. This subregion extends from northwest of San Jose to the Golden Gate Bridge. The Santa Cruz Mountains run up the center of the Peninsula, with elevations exceeding 2,000 feet at the southern end and decreasing to 500 feet in South San Francisco. Coastal towns experience a high incidence of

cool, foggy weather in the summer. Cities in the southeastern Peninsula climatological subregion experience warmer temperatures and fewer foggy days because the marine layer is blocked by the ridgeline to the west. The blocking effect of the Santa Cruz Mountains results in variations in summertime maximum temperatures in different parts of the climatological subregion. For example, in coastal areas and San Francisco, the mean maximum summer temperatures are in the mid 60s, while in Redwood City, the mean maximum summer temperatures are in the low 80s. Mean minimum temperatures during the winter months are in the high 30 s to low 40s on the eastern side of the Peninsula and in the low 40s on the coast.

Two important gaps in the Santa Cruz Mountains occur on the Peninsula. The larger of the two is the San Bruno Gap, extending from Fort Funston on the ocean to San Francisco International Airport. The other gap is the Crystal Springs Gap, between Half Moon Bay and San Carlos. As the sea breeze strengthens on summer afternoons, the Crystal Springs Gap permits maritime air to pass across the mountains.

Annual average wind speeds range from 5 to 10 miles per hour throughout the Peninsula, with higher wind speeds usually found along the coast. Wind speeds on the eastern side of the climatological subregion are often high in certain areas, such as near the San Bruno Gap and the Crystal Springs Gap. The prevailing winds along the Peninsula's coast are from the west, although individual sites can show significant differences. For example, Fort Funston in western San Francisco shows a southwest wind pattern, while Pillar Point in San Mateo County shows a northwest wind pattern. On the east side of the mountains, winds are generally from the west, although wind patterns in this area are often influenced greatly by local topographic features.

Air Pollution Potential

Air pollution potential is highest along the southeastern portion of the subregion, as this is the area most protected from the high winds and fog of the marine layer. Pollutant transport from upwind sites is common. In the southeastern portion of the Peninsula climatological subregion, air pollutant emissions are relatively high due to motor vehicle traffic and stationary sources (BAAQMD 2011).

Atmospheric Conditions

The hills and mountains in the SFBAAB contribute to the high pollution potential of some areas. An inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth, i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground. The highest air pollutant concentrations in the SFBAAB, and therefore in South San Francisco, generally occur during inversions.

The areas having the highest air pollution potential also tend to be those that experience the highest temperatures in the summer and the lowest temperatures in the winter. The frequency of hot, sunny days during the summer months in the SFBAAB is another important factor that affects air pollution potential. Ozone is formed at the higher temperatures. In the presence of ultraviolet sunlight and warm temperatures, reactive organic gases and oxides of nitrogen react to form secondary photochemical pollutants, including ozone. Because temperatures in many of the air basin's inland valleys are so much higher than near the coast, the inland areas are especially prone to photochemical air pollution. In late fall and winter, solar angles are low, resulting in insufficient ultraviolet light and warming of the atmosphere to drive the photochemical reactions. Ozone concentrations do not reach significant levels in the SFBAAB during these seasons (BAAQMD 2011).

Emissions Sources

Although air pollution potential is strongly influenced by climate and topography, the air pollution that occurs in a location also depends on the amount of air pollutant emissions in the surrounding area or those that have been transported from more distant places. Air pollutant emissions generally are highest in areas that have high population densities, high motor vehicle use, and/or industrialization. Contaminants created by photochemical processes in the atmosphere, such as ozone, may result in high concentrations many miles downwind from the sources of their precursor chemicals (BAAQMD 2011).

AIR POLLUTANTS OF CONCERN

Air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide, reactive organic gases (ROG), nitrogen oxide (NO_X), sulfur dioxide, and coarse and fine particulate matter are primary air pollutants. Of these, CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone and nitrogen dioxide are the principal secondary pollutants. Presented in **Table 3.2-1** are descriptions of each of the primary and secondary criteria air pollutants and their known health effects.

TABLE 3.2-1
CRITERIA AIR POLLUTANTS SUMMARY OF COMMON SOURCES AND EFFECTS

Pollutant	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities, and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O_3)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Particulate Matter (PM_{10} & $PM_{2.5}$)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, can damage marble, iron and steel; damage crops and natural vegetation. Impairs visibility.

Source: CAPCOA 2011

AMBIENT AIR QUALITY

Ambient air quality in South San Francisco can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends and projections in the vicinity of South San Francisco are documented by measurements made by the Bay Area Air Quality Management District (BAAQMD), the air pollution regulatory agency in the air basin that maintains air quality monitoring stations which process ambient air quality measurements.

Ozone, PM_{10}, and $PM_{2.5}$ are the pollutants most intensely affecting the SFBAAB. The Redwood City air quality monitoring station (897 Barron Avenue in Redwood City), approximately 17 miles to the southeast of the project site, monitors ambient concentrations of O_3, PM_{10}, and $PM_{2.5}$. Ambient emission concentrations will vary due to localized variations in emissions sources and climate and should be considered generally representative of ambient concentrations in South San Francisco. The concentrations of pollutants monitored at this station are representative of South San Francisco because it is the closest monitoring station to the city and is located in the same climatological subregion.

Table 3.2-2 summarizes the published data since 2012 from the Redwood City air quality monitoring station for each year that monitoring data is provided.

TABLE 3.2-2
SUMMARY OF AMBIENT AIR QUALITY DATA

Pollutant Standards	2012	2013	2014	2015
Ozone				
Max 1-hour concentration (ppm)	0.063	0.083	0.086	0.086
Max 8-hour concentration (ppm) (state/federal)	0.055 / 0.054	0.076 / 0.075	0.066 / 0.065	0.071 / 0.071
Number of days above state 1-hour standard	0	0	0	0
Number of days above state/federal 8-hour standard	0 / 0	0 / 0	0 / 0	1 / 0
Respirable Particulate Matter (PM_{10})				
Max 24-hour concentration ($\mu g/m^3$) (state/federal)	— / —	— / —	— / —	— / —
Number of days above state/federal standard	— / —	— / —	— / —	— / —
Fine Particulate Matter ($PM_{2.5}$)				
Max 24-hour concentration ($\mu g/m^3$) (state/federal)	34.3 / 33.3	39.0 / 39.0	35.0 / 35.0	34.6 / 34.6
Number of days above federal standard	0	3.2	0	0

Source: CARB 2016
Notes: $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million
— = No data is currently available from CARB to determine the value

As previously stated, O_3, PM_{10}, and $PM_{2.5}$ are the pollutants most intensely affecting the SFBAAB. The EPA and the State of California have established health-based ambient air quality standards (CAAQS) for 11 air pollutants. As shown in **Table 3.2-3**, these pollutants are O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, sulfates, lead, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Air quality standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. **Table 3.2-3** also shows the federal and state attainment status for the SFBAAB and thus for South San Francisco. Areas with air quality that exceed adopted air

quality standards are designated as nonattainment areas for the relevant air pollutants, while areas that comply with air quality standards are designated as attainment areas for the relevant air pollutants. The SFBAAB's current attainment status with regard to federal and state ambient air quality standards is summarized in **Table 3.2-3**. The region is nonattainment for federal O_3 and $PM_{2.5}$ standards, as well as for state O_3, PM_{10}, and $PM_{2.5}$ standards (BAAQMD 2015).

TABLE 3.2-3
FEDERAL AND STATE AMBIENT AIR QUALITY ATTAINMENT STATUS FOR THE SAN FRANCISCO BAY AREA AIR BASIN

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone (O_3)	8 Hours	0.070 ppm (137$\mu g/m^3$)	N	0.075 ppm	N
	1 Hour	0.09 ppm (180 $\mu g/m^3$)	N	No standard	Not applicable
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m^3)	A	9 ppm (10 mg/m^3)	A
	1 Hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	A
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 $\mu g/m^3$)	A	0.100 ppm	U
	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)	U	0.053 ppm (100 $\mu g/m^3$)	A
Sulfur Dioxide (SO_2)	24 Hours	0.04 ppm (105 $\mu g/m^3$)	A	0.14 ppm (365/$\mu g/m^3$)	A
	1 Hour	0.25 ppm (665 $\mu g/m^3$)	A	0.075 ppm (196/$\mu g/m^3$)	A
	Annual Arithmetic Mean		U	0.030 ppm (80/$\mu g/m^3$)	A
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	N	No standard	Not applicable
	24 Hours	50 $\mu g/m^3$	N	150 $\mu g/m^3$	U
Particulate Matter – Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	N	15 $\mu g/m^3$	A
	24 Hours		U	35 $\mu g/m^3$	N
Sulfates	24 Hours	25 $\mu g/m^3$	A	—	—
Lead	30-Day Average	1.5 $\mu g/m^3$		—	A
	Calendar Quarter	—	—	1.5 $\mu g/m^3$	A
	Rolling 3-Month Average	—	—	0.15 $\mu g/m^3$	—
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	U	—	—
Vinyl Chloride (chloroethene)	24 Hours	0.01 ppm (26 $\mu g/m^3$)	No information available	—	—
Visibility-Reducing Particles	8 Hours (10:00 to 18:00 PST)	—	—	—	—

Source: BAAQMD 2015
Notes: A = attainment; N = nonattainment; U = unclassified
mg/m^3 = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter

Toxic Air Contaminants

In addition to the criteria air pollutants listed above, another group of pollutants, commonly referred to as toxic air contaminants (TACs) or hazardous air pollutants, can result in health effects that can be quite severe. The California Air Resources Board (CARB) (1999) has designated 244 compounds as TACs. Many TACs are confirmed or suspected carcinogens, or are known or suspected to cause birth defects or neurological damage. Secondly, many TACs can be toxic at very low concentrations. For some chemicals, such as carcinogens, there are no thresholds below which exposure can be considered risk-free.

Industrial facilities and mobile sources are significant sources of TACs. However, common urban facilities also produce TAC emissions, such as gasoline stations (benzene), hospitals (ethylene oxide), and dry cleaners (perchloroethylene). Automobile exhaust also contains TACs such as benzene and 1,3-butadiene. In addition, diesel particulate matter (diesel PM) is a TAC. Diesel PM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. BAAQMD (2011) research indicates that mobile-source emissions of diesel PM, benzene, and 1,3-butadiene represent a substantial portion of the ambient background risk from toxic air contaminants in the San Francisco Bay Area Air Basin.

The health effects associated with TACs are diverse and generally are assessed locally rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute affects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. For evaluation purposes, TACs are separated into carcinogens and noncarcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. Noncarcinogenic substances differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis (BAAQMD 2011).

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others because of the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Children are considered more susceptible to the health effects of air pollution due to their immature immune systems and developing organs (OEHHA 2007). As such, schools are also considered sensitive receptors because children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation.

3.2.3 REGULATORY FRAMEWORK

During construction and operation on the project site, there is potential that gaseous emissions of criteria pollutants and dust would be emitted into the ambient air; therefore, development activities fall under the ambient air quality standards promulgated at the local, state, and federal levels. The federal Clean Air Act of 1971 and the Clean Air Act Amendments (1977)

established the national ambient air quality standards (NAAQS), which are promulgated by the EPA. The State of California has also adopted its own California ambient air quality standards, which are promulgated by CARB. Implementation of the project would occur in the San Francisco Bay Area Air Basin, which is under the air quality regulatory jurisdiction of the BAAQMD and is subject to the rules and regulations adopted by the air district to achieve the national and state ambient air quality standards. Federal, state, regional, and local laws, regulations, plans, and guidelines are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act established NAAQS, with states retaining the option to adopt more stringent standards or to include other pollution species. These standards are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those sensitive receptors most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both the State of California and the federal government have established health-based ambient air quality standards for six air pollutants. As shown in **Table 3.2-4**, these pollutants include ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

TABLE 3.2-4
AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	National Standards
Ozone (O_3)	8 Hour	0.070 ppm (137$\mu g/m^3$)	0.075 ppm
	1 Hour	0.09 ppm (180 $\mu g/m^3$)	—
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 $\mu g/m^3$)	100 ppb
	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)	53 ppb (100 $\mu g/m^3$)
Sulfur Dioxide (SO_2)	24 Hour	0.04 ppm (105 $\mu g/m^3$)	N/A
	3 Hour	—	N/A
	1 Hour	0.25 ppm (665 $\mu g/m^3$)	75 ppb
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	N/A
	24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$
Particulate Matter – Fine ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$
	24 Hour	N/A	35 $\mu g/m^3$
Sulfates	24 Hour	25 $\mu g/m^3$	N/A
Lead	Calendar Quarter	N/A	1.5 $\mu g/m^3$
	30 Day Average	1.5 $\mu g/m^3$)	N/A
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	N/A
Vinyl Chloride (chloroethene)	24 Hour	0.01 ppm (26 $\mu g/m^3$)	N/A
Visibility-Reducing Particles	8 Hour (10:00 to 18:00 PST)	—	N/A

Source: BAAQMD 2015
Notes: mg/m^3 = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter

AIR QUALITY ATTAINMENT PLANS

The BAAQMD is responsible for preparing plans to attain ambient air quality standards in the air basin. The BAAQMD prepares ozone attainment plans for the national ozone standard and clean air plans for the California standard, both in coordination with the Metropolitan Transportation Commission and the Association of Bay Area Governments.

With respect to applicable air quality plans, the BAAQMD prepared the 2017 Clean Air Plan to address nonattainment of the national ozone standard in the San Francisco Bay Area Air Basin. The Clean Air Plan defines a control strategy that the BAAQMD and its partners will implement to (1) reduce emissions and decrease ambient concentrations of harmful pollutants; (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily impacted by air pollution; and (3) reduce greenhouse gas (GHG) emissions to protect the climate. The Clean Air Plan serves as a multipollutant plan to protect public health and the climate. This effort to develop the multipollutant air quality plan is a voluntary initiative by the BAAQMD. The district believes that an integrated and comprehensive approach to planning is critical to respond to air quality and climate protection challenges in the years ahead. In its dual role as an update to the state

ozone plan and a multipollutant plan, the 2017 Clean Air Plan addresses four categories of pollutants (BAAQMD 2017):

- Ground-level ozone and its key precursors, ROG and NOX
- Particulate matter: primary PM2.5, as well as precursors to secondary PM2.5
- Air toxics
- Greenhouse gases

The Clean Air Plan provides local guidance for the State Implementation Plan (SIP), which establishes the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards.

TOXIC AIR CONTAMINANT REGULATIONS

The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." The State of California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987).

The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a toxic air contaminant is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. CARB has, to date, established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings. Stationary sources of air toxics in South San Francisco include gasoline fuel stations, diesel-powered backup generators, and dry cleaning facilities.

Land Use Compatibility with TAC Emission Sources

The location of a development project is a major factor in determining whether it will result in localized air quality impacts. The potential for adverse air quality impacts increases as the distance between the source of emissions and members of the public decreases. While impacts on all members of the population should be considered, impacts on sensitive receptors, such as schools or hospitals, are of particular concern. CARB (2005) published an informational guide entitled *Air Quality and Land Use Handbook: A Community Health Perspective*. The purpose of this guide is to provide information to aid local jurisdictions in addressing issues and concerns related to the placement of sensitive land uses near major sources of air pollution. The handbook includes recommended separation distances between TAC sources and new sensitive land uses. However, these recommendations are not site-specific and should not be interpreted as mandated "buffer zones." It is also important to note that the handbook's

recommendations are advisory and need to be balanced with other state and local policies (CARB 2005). The recommended distances for potential TAC sources that are relevant to evaluating proposed project impacts are listed in **Table 3.2-5**.

TABLE 3.2-5
RECOMMENDATIONS ON SITING NEW SENSITIVE LAND USES NEAR AIR POLLUTANT SOURCES

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles per day.
Dry Cleaners Using Perchloroethylene	• Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc. dry cleaners.
Gasoline Dispensing Facilities	• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Source: CARB 2005
Notes: Recommendations are advisory, are not site-specific, and may not fully account for future reductions in emissions, including those resulting from compliance with existing/future regulatory requirements, such as reductions in diesel-exhaust emissions anticipated to occur with continued implementation of CARB's Diesel Risk Reduction Plan.

California Diesel Risk Reduction Plan

CARB (2010) prepared and adopted the Diesel Risk Reduction Plan (DRRP), which recommends many control measures to reduce the risks associated with diesel PM and achieve a reduction goal of 85 percent by 2020. The DRRP incorporates measures to reduce emissions from diesel-fueled vehicles and stationary diesel-fueled engines. CARB's ongoing efforts to reduce diesel-exhaust emissions from these sources include the development of specific statewide regulations, which are designed to further reduce diesel PM emissions. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emissions standards to reduce diesel PM emissions.

Since initial adoption of the DRRP in September 2000, CARB has adopted numerous rules related to the reduction of diesel PM from mobile sources, as well as the use of cleaner-burning fuels. Transportation sources addressed by these rules pertaining to South San Francisco include public transit buses, school buses, on-road heavy-duty trucks, and off-road heavy-duty construction equipment.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

The BAAQMD attains and maintains air quality conditions in the San Francisco Bay Area Air Basin through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The BAAQMD's clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The BAAQMD also inspects stationary sources of air pollution, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the federal Clean Air Act, the Clean Air Act Amendments, and the California Clean Air Act.

Rules and Regulations

The BAAQMD develops regulations to improve air quality and protect the health and welfare of Bay Area residents and their environment. BAAQMD rules and regulations most applicable to the proposed project include, but are not limited to, the following:

- **Regulation 2, Rule 2: New Source Review.** Requires any new source resulting in an increase of any criteria pollutant to be evaluated for adherence to best available control technology. For compression internal combustion engines, best available control technology requires that the generator be fired on California diesel fuel (fuel oil with a sulfur content less than 0.05 percent by weight and less than 20 percent by volume of aromatic hydrocarbons). All stationary internal combustion engines larger than 50 horsepower must obtain a Permit to Operate. If the engine is diesel fueled, it must also comply with the BAAQMD-administered Statewide Air Toxics Control Measure for Stationary Diesel Engines.

- **Regulation 7: Odorous Substances.** Establishes general limitations on odorous substances and specific emission limitations on certain odorous compounds.

- **Regulation 8, Rule 3: Architectural Coatings.** Limits the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the district.

- **Regulation 8, Rule 15: Emulsified and Liquid Asphalts.** Limits the emissions of volatile organic compounds caused by the use of emulsified and liquid asphalt in paving materials and paving and maintenance operations.

- **Regulation 14: Mobile Source Emissions Reduction Measures.** Includes measures to reduce emissions of air pollutants from mobile sources by reducing motor vehicle use and/or promoting the use of clean fuels and low-emission vehicles.

The above list includes rules and regulations most applicable to the proposed development of the Community Civic Campus Project. Additional rules and regulations may apply, depending on the sources proposed and the activities conducted.

BAAQMD Construction Mitigation Measures

The BAAQMD recommends quantifying a proposed project's construction-generated emissions by implementing the Basic Construction Mitigation Measures as mitigation for dust and exhaust construction impacts in California Environmental Quality Act (CEQA) compliance documentation. If additional construction measures are required to reduce construction-generated emissions, the Additional Construction Mitigation Measures should then be applied. **Table 3.2-6** identifies the Basic and Additional Construction Mitigation Measures. In addition, all projects must implement any applicable air toxic control measures. For example, projects that have the potential to disturb asbestos (from soil or building materials) must comply with all the requirements of CARB's air toxic control measures for construction, grading, quarrying, and surface mining operations.

TABLE 3.2-6
BAAQMD BASIC AND ADDITIONAL CONSTRUCTION MITIGATION MEASURES

BAAQMD Basic Construction Mitigation Measures
1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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 is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.
BAAQMD Additional Construction Mitigation Measures
1. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
2. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
3. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
4. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
5. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
6. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
7. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.
8. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
9. Minimizing the idling time of diesel-powered construction equipment to 2 minutes.
10. The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.
11. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
12. Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.
13. Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines.

Source: BAAQMD 2011

CITY OF SOUTH SAN FRANCISCO GENERAL PLAN

The Land Use, Planning Sub-Areas, Transportation, and Open Space and Conservation elements of the General Plan contain the following policies that are relevant to the analysis of air quality impacts:

Chapter 2: Land Use

2-I-4 Require all new developments seeking an FAR bonus to achieve a progressively higher alternative mode usage. The requirements of the TDM program are detailed in the Zoning Ordinance.

2-I-5 Examine the potential for establishing performance-based standards for industrial development to minimize resulting impacts.

2-I-6 Undertake a comprehensive review of the parking standards and establish criteria for reduced parking for mixed-use developments, for development that meets specified TDM criteria, and Medium- and High-Density Residential development.

2.1-13 As part of development review in environmentally sensitive areas, require specific environmental studies and/or review as stipulated in Section 7.1: Habitat and Biological Resources Conservation.

2.1-15 As part of the General Plan Annual Report, monitor the rate and density/intensity of residential, commercial, and industrial development, and site availability for future development.

Chapter 3: Planning Sub-Areas

3.4-1-1 Work with Caltrans and other agencies to implement the El Camino Real Landscape Conceptual Master Plan for the entire stretch of El Camino Real through South San Francisco.

3.4-1-2 Prepare and implement an El Camino Real overlay district in the City's Zoning Ordinance that provides development standards that further El Camino's development as a mixed-use use boulevard, accommodating the need for both auto-oriented uses as well as designated pedestrian-oriented centers.

3.4-1-6 Prepare a focused plan for public improvements to the BART station that includes:

- Streets and other infrastructure improvements; and
- Sidewalk design and construction within a 1/2-mile of the BART station to integrate the station with the surroundings.

3.4-1-8 Require any new development/redevelopment within 1/2-mile of the BART station at a density of no less than 30 units per net acre for residential uses, or an FAR of 1.5 for non-residential uses, or an appropriate combination of the two. Maintain higher intensities where specified otherwise in the General Plan.

3.4-1-13 Develop the El Camino Real/Chestnut Area in accordance with the vision established for the area by the El Camino Real/Chestnut Avenue Area Plan.

3.4-1-14 Maintain the El Camino Real/Chestnut Avenue Area Plan as the detailed implementing guide for the area. The El Camino Real/Chestnut Avenue Area Plan provides principles and policies that lay the framework for development within the area. The Area Plan provides an overall vision for the area in terms of land use, urban design and circulation, and emphasizes the creation of a vibrant and viable activity center in South San Francisco. The Area Plan also includes Design Standards and Guidelines to guide design review of projects.

Chapter 4: Transportation

4.2-I-11 Implement, to the extent feasible, circulation system improvements illustrated in Figures 4-1, 4-2 and 4-3 prior to deterioration in levels of service below the stated standard.

4.3-I-1 Prepare and adopt a Bikeways Master Plan that includes goals and objectives, a list or map of improvements, a signage program, detailed standards, and an implementation program. Once adopted, the Bicycle Master Plan shall be the guiding policy document regarding bicycling matters that are within the scope of the adopted Bicycle Master Plan.

4.3-I-5 Prepare, adopt, and maintain a PMP as a long-term vision for supporting and improving pedestrian access in South San Francisco, including goals, policies, and strategic near-term implementation measures that encourage pedestrian activity and prioritizes pedestrian improvements for funding.

4.3-I-9 Promote pedestrian safety and access through education, collaboration with C/CAG, and regular public awareness efforts that advocate walking.

4.3-I-12 Use the El Camino Real/Chestnut Avenue Area Plan to identify, schedule, and implement pedestrian improvements for the El Camino Real/Chestnut Area.

4.3-I-15 Adopt a TDM program or ordinance which includes, but is not limited to, the following components:

- Methodology to determine eligibility for land use intensity bonuses for TDM programs identified in the Land Use Element.
- Procedures to ensure continued maintenance of measures that result in intensity bonuses.
- Requirements for off site improvements (such as bus shelters and pedestrian connections) that are directly necessary as a result of development.
- Establishment of baseline TDM requirements for all new projects generating more than 100 peak period trips.
- Establishment of additional requirements for all new projects seeking a FAR bonus.

- An ongoing monitoring and enforcement program to ensure TDM measures are actually implemented.

- Reduce parking requirements for new projects implementing a TDM Program in proximity to fixed guide way transit or those with demonstrated measures that would reduce trip generation.

4.3-I-16 Favor Transportation Systems Management programs that limit vehicle use over those that extend the commute hour.

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.

4.3-I-19 Amend the Zoning Ordinance to reduce minimum parking requirements for projects proximate to transit stations and for projects implementing a TDM program.

4.3-I-20 Investigate opportunities for shared parking facilities whenever possible to reduce the number of new parking stalls required.

4.4-I-1 Develop a Downtown multi-modal transit center southeast of the Grand Avenue/ Airport Boulevard intersection, with a relocated Caltrain Station as its hub.

4.4-I-3 Explore the feasibility a shuttle system between the Downtown/multimodal station and South San Francisco and San Bruno stations. Explore mechanisms to provide the shuttle service free to riders

Chapter 7: Open Space and Conservation

7.3-I-2 Use the City's development review process and the California Environmental Quality Act (CEQA) regulations to evaluate and mitigate the local and cumulative effects of new development on air quality and GHG emissions.

7.3-I-5 In cooperation with local conservation groups, institute an active urban forest management program that consists of planting new trees and maintaining existing ones.

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.

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.

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.

7.3-I-14 Ensure that design guidelines and standards support operation of alternative fuel facilities, vehicles, and equipment.

3.2.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the CEQA Guidelines Appendix G thresholds of significance. A project is considered to have significant impacts if implementation of the project would:

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

2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

3) Expose sensitive receptors to substantial pollutant concentrations.

4) Create objectionable odors affecting a substantial number of people.

5) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Changes in the CEQA Guidelines

The thresholds used for the ECR/C EIR air quality analysis were:

- The proposed Plan must be consistent with the most recently adopted CAP control measures and projected vehicle miles traveled (VMT) or vehicle trips (VT) under the proposed plan must increase less than or equal to the projected population increase.

- The proposed land use diagram identifies special overlay zones around existing and planned sources of TACs and $PM_{2.5}$, including special overlay zones of at least 500 feet (or Air District-approved modeled distance) on each side of all freeways and high volume roadways, and plan identifies goals, policies, and objectives to minimize potentially adverse impacts.

- The proposed plan must identify locations of odor sources in plan; identify goals, policies, and objectives to minimize potentially adverse impacts.

CEQA Guidance

The BAAQMD publishes air quality guidelines to assist local jurisdictions and lead agencies in complying with CEQA requirements regarding potentially adverse impacts to air quality. The district's guidelines were updated in June 2010 to include new thresholds of significance (2010 thresholds) adopted by the BAAQMD Governing Board on June 2, 2010. The 2010 thresholds

included new thresholds of significance for construction emissions, cumulative TAC impacts, and fine particulate matter concentration increases. The BAAQMD's guidelines were further updated in May 2011.

On March 5, 2012, the Alameda County Superior Court issued a judgment in connection with a lawsuit filed by the Building Industry Association, finding that the BAAQMD had failed to comply with CEQA when it adopted the 2010 thresholds. The court did not determine whether the 2010 thresholds were valid on the merits, but found that adoption of the 2010 thresholds was a "project" under CEQA. The court issued a writ of mandate ordering the BAAQMD to set aside the 2010 thresholds and cease dissemination of them until the district had complied with CEQA. However, the court did not address the Building Industry Association's remaining arguments. The BAAQMD appealed the Alameda County Superior Court's decision and the case went to the Court of Appeal, First Appellate District.

After the Alameda County Superior Court's decision, the BAAQMD stopped recommending that the 2010 thresholds be used as a generally applicable measure of a project's significant air quality impacts. The BAAQMD released a new version of its CEQA air quality guidelines in May 2012 removing the 2010 thresholds. The BAAQMD, however, recommended that lead agencies determine appropriate air quality thresholds of significance based on substantial evidence in the record.

On August 13, 2013, the Court of Appeal reversed the Superior Court's decision, finding that the BAAQMD's thresholds were not a "project" under CEQA and, as such, did not require CEQA review. On November 26, 2013, the California Supreme Court by unanimous vote granted review, but solely to address the legal issue of whether CEQA review is confined to an analysis of a proposed project's impacts on the existing environment or also requires analysis of the existing environment's impacts on the proposed project and its future occupants and users. On December 17, 2015, the Supreme Court of California issued its ruling, concluding that agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. However, when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project. Given the recent date of the Supreme Court decision compared with the writing of this assessment, the BAAQMD has yet to announce a recommendation regarding use of its 2010 thresholds. (A petition for rehearing, filed August 25, 2016, was denied September 9, 2016.) In the meantime, lead agencies may exercise their discretion and utilize said thresholds based on a determination that they are supported by substantial evidence.

This assessment uses the 2010 BAAQMD's thresholds[1] since they are supported by substantial evidence. Using these criteria, an air quality impact is considered significant if the project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The BAAQMD thresholds of significance for evaluating construction and operational air quality impacts are listed in **Table 3.2-7**.

[1] The BAAQMD thresholds were updated in May 2017. However, the project's notice of preparation (NOP) was issued on March 2, 2017, and the analysis uses the thresholds as of that date.

TABLE 3.2-7
BAAQMD SIGNIFICANCE THRESHOLDS

Air Pollutant	Construction Activities	Operations	
Reactive Organic Gases (ROG)	54 pounds/day	54 pounds/day	10 tons/year
Nitrogen Oxides (NO_x)	54 pounds/day	54 pounds/day	10 tons/year
Coarse Particulates (PM_{10})	82 pounds/day (exhaust PM_{10})	82 pounds/day	15 tons/year
Fine Particulates ($PM_{2.5}$)	54 pounds/day (exhaust $PM_{2.5}$)	54 pounds/day	10 tons/year
Fugitive Dust Particulate Matter	BAAQMD Best Management Practices	None	None
Carbon Monoxide (CO)	None	None	None
Sulfur Oxides (SO_x)	None	None	None

*Source: BAAQMD 2011. The BAAQMD recommends Basic Construction Mitigation Measures (see **Table 3.2-6**) during construction in order to achieve less than significant impacts related to fugitive dust emissions during construction activities (fugitive dust PM_{10} and $PM_{2.5}$).*

Carbon Monoxide Hot-Spot Analysis

In addition to the significance thresholds listed above, the project would be subject to the ambient air quality standards, which are addressed though an analysis of localized CO impacts. The California 1-hour and 8-hour carbon monoxide standards are:

- 1-hour = 20 parts per million
- 8-hour = 9 parts per million

The significance of localized impacts depends on whether ambient CO levels in the vicinity of the project site are above state and federal carbon monoxide standards. CO concentrations in South San Francisco do not exceed the CAAQS or NAAQS criteria, and the air basin has been designated as attainment under the 1-hour and 8-hour standards.

Toxic Air Contaminant Thresholds

This Draft SEIR also evaluates the project's impacts with respect to toxic air contaminants. The BAAQMD regulates levels of air toxics through a permitting process. If emissions of TACs exceed an excess cancer risk level of more than 10 in one million or a non-cancer hazard index greater than 1.0, the project would result in a significant impact.

METHODOLOGY

Air quality impacts were assessed in accordance with methodologies recommended by the BAAQMD, based on the development potential assumptions provided by the project applicant. Criteria air pollutant emissions were modeled using the California Emissions Estimator Model (CalEEMod) (see **Appendix AIR**). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions from a variety of land use projects.

IMPACTS AND MITIGATION MEASURES

Conflict with or Obstruct Implementation of the 2017 Clean Air Plan (Standard of Significance 1)

Impact 3.2.1 Implementation of the proposed project would not conflict with the BAAQMD's 2017 Clean Air Plan. This impact is **less than significant**.

ECR/C Area Plan EIR Impacts

The ECR/C EIR based its impacts on vehicle miles traveled (VMT). The project would not increase VMT at a faster rate than population growth and would not be inconsistent with air quality control measures in the 2010 Bay Area Clean Air Plan. BAAQMD guidelines specify that the plan-level air quality impact is evaluated by determining the proposed plan's VMT increase and comparing it to the project population increase. The plan would increase population by 20.4 percent in South San Francisco, while VMT would increase by approximately 16.6 percent. The ECR/C area plan and the City's General Plan policies conform to the control strategies included in the 2010 Bay Area Clean Air Plan. Therefore, the impact was less than significant (South San Francisco 2011b, p. 3.2-17).

Subsequent Project Impacts

As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously stated, the BAAQMD prepared the 2017 Clean Air Plan as a multipollutant plan to address the air basin's nonattainment status related to the national 1-hour ozone standard and the CAAQS, as well as particulate matter, air toxics, and greenhouse gases. The plan establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The Clean Air Plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, updated emission inventory methodologies for various source categories, and the latest population growth projections and VMT projections for the region.

Criteria for determining consistency with the Clean Air Plan are defined by the following indicators:

- Consistency Criterion No. 1: The project supports the primary goals of the Clean Air Plan.
- Consistency Criterion No. 2: The project conforms to applicable control measures from the Clean Air Plan and does not disrupt or hinder the implementation of any Clean Air Plan control measures.

The violations to which Consistency Criterion No. 1 refer are the California ambient air quality standards (CAAQS) and the national ambient air quality standards (NAAQS). As evaluated below in Impact 3.2.2, the project would not exceed operational standards and therefore would not violate air quality standards. Thus, the project would be consistent with the first criterion.

Concerning Consistency Criterion No. 2, the 2017 Clean Air Plan contains air pollutant reduction strategies and demonstrates that the applicable ambient air quality standards can be achieved within the time frames required under federal law. Growth projections from local general plans adopted by cities in the air district are used to develop regional growth forecasts. The regional growth forecasts are used to develop future air quality forecasts for the 2017 Clean Air Plan. Development in South San Francisco consistent with the growth projections in the South San Francisco General Plan is considered to be consistent with the 2017 Clean Air Plan. The proposed project is consistent with the land use designations and development density presented in the General Plan and therefore would not exceed the population or job growth projections used to inform the air quality forecasts of the 2017 Clean Air Plan.

The revised project is consistent with both criteria and would therefore continue to have a **less than significant** impact.

Mitigation Measures

None required.

Violate an Air Quality Standard or Contribute Substantially to an Air Quality Violation During Short- or Long-Term Operations (Standard of Significance 2)

Impact 3.2.2 Implementation of the proposed project would not result in an air quality violation with mitigation. This impact would be **less than significant with mitigation**.

ECR/C Area Plan EIR Impacts

The BAAQMD significance criteria for plan-level analysis did not require the preparation of pollutant estimates. Therefore, the possibility of the violation of an air quality standard was not calculated.

Subsequent Project Impacts

Construction-Generated Emissions

The project would generate short-term emissions from construction activities such as demolition, site grading, asphalt paving, building construction, and architectural coatings (e.g., painting). Common construction emissions include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment and portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_X emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Worker commute trips and architectural coatings are dominant sources of ROG emissions.

Predicted maximum daily construction-generated emissions for the project are summarized in **Table 3.2-8**.

TABLE 3.2-8
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – UNMITIGATED
(MAXIMUM POUNDS PER DAY)

Construction Activities	ROG	NO_X	Exhaust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust PM_{10}	Fugitive Dust $PM_{2.5}$
Year 2017	13.19	57.60	3.20	3.00	18.21	9.97
Year 2018	12.31	50.47	2.67	2.50	18.21	9.97
Year 2019	11.69	45.24	2.30	2.15	1.72	0.46
BAAQMD Potentially Significant Impact Threshold	54 pounds/day	54 pounds/day	82 pounds/day	54 pounds/day	Basic Construction Mitigation Measures	Basic Construction Mitigation Measures
Exceed BAAQMD Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

*Source: CalEEMod version 2016.3.1. See **Appendix AIR** for emission model outputs.*

All construction projects in South San Francisco are required to implement the BAAQMD's Basic Construction Mitigation Measures (see **Table 3.2-6**) as a condition of project approval; therefore, the proposed project would conform to BAAQMD recommendations related to fugitive dust emissions. As shown in **Table 3.2-8**, all criteria pollutant emissions would remain below their respective thresholds, with the exception of NO_X. Construction activities would surpass BAAQMD significance thresholds at least one day during construction. Since NO_X emissions are projected to surpass the significance threshold and NO_X is directly associated with the use of diesel-powered construction equipment, mitigation measure **MM 3.2.2** is required.

Table 3.2-9 identifies the construction-generated emissions with implementation of mitigation measure **MM 3.2.2**, which requires that all diesel power equipment comply with CARB regulations.

TABLE 3.2-9
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – MITIGATED
(MAXIMUM POUNDS PER DAY)

Construction Activities	ROG	NO_X	Exhaust PM_{10}	Exhaust $PM_{2.5}$	Fugitive Dust PM_{10}	Fugitive Dust $PM_{2.5}$
Year 2017	9.10	35.02	1.69	1.68	18.21	9.97
Year 2018	8.98	34.43	1.67	1.67	18.21	9.97
Year 2019	8.90	33.96	1.66	1.66	1.72	0.46
BAAQMD Potentially Significant Impact Threshold	54 pounds/day	54 pounds/day	82 pounds/day	54 pounds/day	Basic Construction Mitigation Measures	Basic Construction Mitigation Measures
Exceed BAAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod version 2016.3.1. See **Appendix AIR** for emission model outputs.*

Implementation of mitigation measure **MM 3.2.2** would reduce NO_X emissions to levels below the BAAQMD significance threshold. Therefore, the revised project would have a **less than significant impact with mitigation** on construction-related emissions.

Operational Emissions

The project would result in long-term operational emissions of criteria air pollutants and ozone precursors (i.e., ROG and NO_X). Project-generated increases in emissions would be predominantly associated with motor vehicle use. Long-term operational emissions are summarized in **Table 3.2-10.**

TABLE 3.2-10
LONG-TERM OPERATIONAL EMISSIONS

Source	Emissions					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Daily Emissions (Pounds per Day)						
Summer Emissions (Pounds per Day)	12.59	24.40	85.85	0.27	22.99	6.41
Winter Emissions (Pounds per Day)	11.84	26.35	90.85	0.25	22.99	6.41
BAAQMD Potentially Significant Impact Threshold (Daily Emissions)	54 pounds/day	54 pounds/day	None	None	82 pounds/day	54 pounds/day
Exceed BAAQMD Daily Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Annual Emissions (Tons per Year)						
Annual Emissions (Tons per Year)	2.14	4.66	15.67	0.05	4.02	1.13
BAAQMD Potentially Significant Impact Threshold (Annual Emissions)	10 tons/year	10 tons/year	None	None	15 tons/year	10 tons/year
Exceed BAAQMD Annual Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod version 2016.3.1. See **Appendix AIR** for emission model outputs.*

As shown in **Table 3.2-10**, all criteria pollutant emissions would remain below their respective thresholds during operations. Therefore, the revised project's operational impacts would be **less than significant.**

Mitigation Measures

MM 3.2.2 During construction activities, the project applicant and/or its contractor shall ensure that all off-road diesel-fueled equipment (e.g., rubber-tired dozers, graders, scrapers, excavators, asphalt paving equipment, cranes, and tractors) is California Air Resources Board (CARB) Tier 3 Certified or better.[2]

[2] The Clean Air Act of 1990 directed the EPA to study, and regulate if warranted, the contribution of off-road internal combustion engines to urban air pollution. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the EPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the EPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 horsepower and increasingly more stringent Tier

Expose Sensitive Receptors to Substantial Pollutant Concentrations (Standard of Significance 3)

Impact 3.2.3 The proposed project would not contribute to localized concentrations of mobile-source CO that would exceed applicable ambient air quality standards. This impact would be **less than significant with mitigation**.

ECR/C Area Plan EIR Impacts

Several permitted sources of TACs were present in the plan area. These were a dry cleaner located at 1053 El Camino Real and a standby diesel generator at 1040 Old Mission Road. CARB's (2005) *Air Quality and Land Use Handbook* recommends a 300-foot buffer around dry cleaning operations, but the dry cleaner is required to phase out perchloroethylene operations by 2023, which would reduce health risks to a less than significant level. Projects proposed prior to the phase-out will be required to complete a site-specific analysis. The risks from the generator were considered de minimus. The planning area did not have sufficient traffic volumes to pose a significant risk from mobile sources of air pollutants to sensitive receptors. Therefore, the project would have a less than significant impact.

Subsequent Project Impacts

Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers.

The project site is located near several sensitive receptors. Residential uses are located approximately 100 feet away from the western project site across Arroyo Drive. Residential uses are located between the eastern project site and Colma Creek, adjacent to Antoinette Lane. The closest school is the Urban Sprouts Preschool, located approximately 600 feet to the northwest of the western project site. R. W Drake Preschool is also located nearby and is approximately 900 feet to the south of the eastern project site. A hospital, Kaiser Permanente of South San Francisco, is located approximately 1,200 feet north of the project site.

Air Toxics (TACs) Generated During Construction

Sources of construction-related TACs potentially affecting the sensitive receptors include off-road diesel-powered equipment. Construction would result in the generation of diesel PM emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic and would occur over several locations isolated from one another. Additionally, mitigation measure **MM 3.2.2** would reduce the amount of construction-generated diesel exhaust particulate matter and other pollutants by requiring the most efficient equipment. For instance, the Tier 3 standards,

2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards.

required by mitigation measure **MM 3.2.2**, reduce emissions of NO_X by more than 29 percent, PM_{10} by 10 percent, and $PM_{2.5}$ by 15 percent. Furthermore, future development would be subject to and would comply with California regulations limiting the idling of vehicles to no more than 5 minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable diesel PM emissions.

For these reasons and because diesel fumes disperse rapidly over relatively short distances, diesel PM generated by construction activities, in and of itself, would not be expected to expose sensitive receptors to substantial amounts of air toxics, and the revised project's impact would be **less than significant with mitigation.**

Air Toxics (TACs) Generated During Project Operations

The proposed project consists of a fire station, a community civic center, and office buildings. Therefore, the project would not include stationary sources of air toxics (i.e., smoke stacks). Furthermore, operations of the project will not require the need for substantial material deliveries involving heavy-duty trucks, a source of diesel particulate matter (according to the California Air Pollution Control Officers Association's (CAPCOA) (2009) Health Risk Assessments for Proposed Land Use Projects, operations that require fewer than 100 delivery trucks daily are not considered a potential health risk). Therefore, the project would not result in the exposure of existing sensitive receptors to substantial amounts of air toxics. Additionally, the proposed project is not considered a sensitive land use and would not be staffed by or service the population groups most likely to be affected by air toxics. Therefore, the revised project would continue to have a **less than significant** impact.

Carbon Monoxide Hot Spots

The primary mobile-source criteria pollutant of local concern is carbon monoxide. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours.[3] Modeling is therefore typically conducted for intersections that are projected to operate at unacceptable levels of service during peak commute hours.

Based on BAAQMD guidance, projects meeting all of the following screening criteria would be considered to have a less than significant impact on localized carbon monoxide concentrations if:

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

[3] Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. Level of service is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.

2. The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

3. The 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., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

According to the transportation impact analysis prepared for the project (Kimley Horn 2017), the major roadway in the project vicinity, El Camino Real (State Route [SR] 82), has volumes of 15,400 daily trips to the north and 32,000 daily trips to the south. The project would result in an additional 5,571 daily trips.[4] The project would not increase traffic volumes to more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal mixing of pollutants and atmosphere is substantially limited (i.e., an enclosed parking structure). Therefore, the revised project's impact would continue to be **less than significant.**

Mitigation Measures

Implementation of mitigation measure **MM 3.2.2** (see Impact 3.2.2) would reduce impacts to less than significant.

Expose Sensitive Receptors to Odorous Emissions (Standard of Significance 4)

Impact 3.2.4 Future development would not result in exposure of sensitive receptors to substantial odorous emissions. This impact would be **less than significant**.

ECR/C Area Plan Impacts

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress, generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. Odor impacts should be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. Future land uses in the proposed plan include commercial and residential land uses. New industrial uses are not permitted in the planning area. Therefore, no odor sources are anticipated to be built under the proposed Area Plan. In addition, all new development under the Area Plan would be subject to existing policies and regulations regarding odors. Therefore, the project would have a less than significant odor impact (South San Francisco 2011b, p. 3.2-26).

Subsequent Project Impacts

Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact. Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, asphalt batch plants, agricultural feedlots, and dairies. Short-term construction activities may also result in localized increases of odorous emissions. Short- and long-term increases in localized concentrations of odors are discussed below.

[4] Note: The TIA states the ECR/C plan area would add 9,962 additional trips. However, the project only encompasses blocks D and E (-340 trips), blocks F and G (4,856 trips), and the outside focus area (1,055 trips) for a total of 5,571 trips. Therefore, the air quality analysis used 5,571 trips in its calculations.

Short-Term Exposure to Odors

Construction is not anticipated to expose nearby receptors to objectionable odors. Construction-generated odors are typically associated with exhaust emissions from diesel-fueled equipment and the application of architectural coatings and paving materials, which may be considered objectionable to some individuals. However, because construction-related odors would be intermittent, temporary, and would disperse rapidly with distance from the source, construction-related odors would not result in the frequent exposure of a substantial number of individuals to objectionable odors. It is also important to note that the project is required to comply with BAAQMD Regulation 8, Rule 3, Architectural Coatings, and Rule 15, Emulsified Asphalt, which establish volatile organic compound (VOC) content limits for these construction materials. VOCs are the main sources of odors from these sources. Therefore, compliance with these regulatory requirements would further reduce odor impacts associated with these sources. Short-term exposure to odorous emissions would therefore continue to be considered **less than significant**.

Long-Term Exposure to Odors

The proposed project consists of a community campus with a library, recreation center, office space, and a fire station, which are not considered major sources of odorous emissions. Therefore, the project would not be expected to result in the installation of any major odor emissions sources. Long-term exposure to odorous emissions would continue to be considered **less than significant**.

Mitigation Measures

None required.

3.2.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for air quality includes South San Francisco and the San Francisco Bay Area Air Basin. The SFBAAB is designated as a nonattainment area related to the state standards for O_3, PM_{10}, and $PM_{2.5}$ in addition to federal O_3 and $PM_{2.5}$ standards. The air basin is designated as being unclassified and/or attainment for all other pollutants. Cumulative growth in population, vehicle use, and industrial activity could inhibit efforts to improve regional air quality and attain the ambient air quality standards. Thus, the setting for this cumulative analysis consists of the SFBAAB and associated growth and development anticipated in the air basin.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Air Quality Impacts (Standard of Significance 5)

Impact 3.2.5 The proposed project, in combination with cumulative development in the SFBAAB, would not result in a cumulatively considerable net increase of criteria air pollutants for which the air basin is designated nonattainment. This impact would be a **less than cumulatively considerable**.

ECR/C Area Plan Impacts

By its nature, air quality analysis represents a cumulative analysis air pollution in the project area. Implementation of the Area Plan, with the forecast development of residential and commercial land uses, could result in increased air pollution and therefore an increase of criteria air pollutants. However, the plan's contribution was found to be less than cumulatively considerable because the projected VMT caused by plan implementation would be less than its projected population increase (South San Francisco 2011b, p. 5-4).

Subsequent Project Impacts

By its very nature, air pollution is largely a cumulative impact. According to the BAAQMD, no single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. According to the BAAQMD (2011), if a project exceeds its identified significance thresholds, the project's impact would be cumulatively considerable. As stated under Impact 3.5.3, the project would not exceed BAAQMD thresholds with the implementation of mitigation measure **MM 3.2.2.** With implementation, the revised project would have a **less than cumulatively considerable impact with mitigation**.

Mitigation Measures

MM 3.2.2 (see Impact 3.2.2)

3.2.6 REFERENCES

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3.3 – Biological Resources

This section describes the existing biological resources, including special-status plant and wildlife species and vegetation communities known to occur and/or have the potential to occur on the project site. The section includes a summary of the regulations and programs that provide protective measures to special-status species, an analysis of impacts on biological resources that could result from project implementation, and a discussion of mitigation measures necessary to reduce impacts to a less than significant level, where feasible. The analysis of biological resources presented in this section is based on a review of the current project description and available literature, as well as a site visit and survey conducted by a Michael Baker International biologist on February 22, 2017. This section also summarizes the analysis under the previous City of South San Francisco El Camino Real/Chestnut Avenue (ECR/C) Area Plan Environmental Impact Report (EIR) prepared and certified in 2011.

3.3.1 SEIR IMPACT SUMMARY

A summary of the impact conclusions related to biological resources is provided below.

Impact Number	Impact Topic	Impact Significance
3.3.1	Candidate, sensitive, or special-status plant or animal species	Less than significant with mitigation
3.3.2	Riparian habitat or sensitive natural communities	No impact
3.3.3	Wetlands or waters of the United States	No impact
3.3.4	Wildlife movement	No impact
3.3.5	Conflict with local policies	Less than significant
3.3.6	Conservation plans	No impact
3.3.7	Special-status species populations	Less than significant with mitigation
3.3.8	Cumulative biological resources impacts	Less than cumulatively considerable with mitigation

Impacts identified in the ECR/C EIR are summarized with the project impacts in subsection 3.3.4.

3.3.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

The area originally analyzed in the 2011 ECR/C EIR consisted of approximately 98 acres of primarily developed land in South San Francisco. The 2011 ECR/C EIR described the project site as primarily developed with commercial and medical uses, and located in an urbanized portion of South San Francisco. It was noted that while there is vacant land present, it is generally paved. The California Gap Analysis designated the project site as developed without special-status vegetation communities, riparian areas, or other special-status resources such as wetlands or wildlife corridors. No habitat conservation plans (HCP), natural community conservation plans (NCCP), or other approved local, regional, or state plans had been adopted for the planning area.

The California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) had records of three special-status species in the planning area. These species included the congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*), the Alameda song sparrow (*Melospiza melodia pusillula*), and the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*; federally and state listed as endangered, and CDFW Fully Protected). The congested-

headed hayfield tarplant, a California Rare Plant Rank (CRPR) 1B.2 species, is recognized as rare, threatened, or endangered in California and elsewhere by the California Native Plant Society (CNPS). The Alameda song sparrow is recognized as a California Species of Special Concern by the CDFW. The San Francisco garter snake is listed as endangered under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA).

CURRENT (PROPOSED) PROJECT SITE SETTING

The project site is located in South San Francisco near the intersection of State Route 82 (El Camino Real) and Chestnut Avenue. The majority of the proposed project will be located on the eastern project site, with portions on both sides of and including Antoinette Lane, north of Chestnut Avenue. A small portion of the project would occur on the western project site, which currently contains the existing Municipal Services Building and a parking lot, and is bordered to the north, east, and west by El Camino Real, Arroyo Drive, and Camaritas Avenue, respectively. The entire project site is approximately 9 acres and includes existing businesses, paved lots, Antoinette Lane, and disturbed habitat. The project site is located approximately 0.8 mile south of the base of San Bruno Mountain and roughly 3 miles west of the San Francisco Bay.

A small stand of mature eucalyptus (*Eucalyptus* sp.) trees occurs just north of the eastern project site adjacent to a recreational use trail. The project is located just west of Colma Creek, which conveys flows through South San Francisco into the San Francisco Bay. While certain portions of Colma Creek may support vegetation and wetland features, in this area of the city, the creek is channelized, lined with concrete, and virtually devoid of vegetation. There is a large paved area on the project site just west of Antoinette Lane. At the time of the survey, the paved area contained ponded water from recent heavy rain.

CHANGES FROM 2011 CONDITIONS

At the time of the ECR/C EIR, the eastern project site contained relatively similar conditions, including ornamental trees in the north and adjacent to El Camino Real, the developed Antoinette Lane, and disturbed habitat otherwise. The paved lot currently in the center of the eastern project site was not present in 2011. The developed western project site is relatively unchanged.

VEGETATION

The eastern project site primarily consists of a mixture of disturbed habitat and urban areas. The western project site is entirely developed. Vegetation communities and land uses on the project site are discussed below and shown in **Figure 3.3-1, Vegetation Communities**.

Disturbed Habitat

Disturbed habitat occurs in areas of frequent and repeated disturbance (e.g., vehicle activities, mowing), such as along roadsides, trails, and parking lots, and is found in close proximity to urban or developed areas. Disturbed habitat on-site supports a diverse weedy flora, including bromes (*Bromus* sp.), wild oats (*Avena* sp.), milk thistle (*Silybum marianum*), and other non-native species.

Approximately 1.5 acres of disturbed habitat are within the eastern project site, which is surrounded by urban development to the east, including a paved parking lot to the south, El Camino Real to the west, and disturbed habitat with some development to the north. The disturbed habitat shows signs of dumping, routine use by bicyclists and pedestrians, and historical grading and earthwork. The vegetation consists of introduced grasses and forbs.

Figure 3.3-1
Vegetation Communities

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Wildlife species typically found in disturbed habitat include western fence lizard (*Sceloporus occidentalis*), black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Otospermophilus beecheyi*), western harvest mouse (*Reithrodontomys megalotis*), Botta's pocket gopher (*Thomomys bottae*), California vole (*Microtus californicus*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), and common raven (*Corvus corax*).

Ornamental

On the eastern project site, several native and ornamental trees and shrubs are located east of and adjacent to El Camino Real, including but not limited to eucalyptus, Monterey cypress (*Hesperocyparis macrocarpa*; a CRPR 1B.2 species on the coast, but invasive elsewhere), toyon (*Heteromeles arbutifolia*), ornamental cypress (Family Cupressaceae), atlas cedar (*Cedrus atlantica*), and ornamental plum (*Prunus* sp.). This vegetation community often supports nesting raptors, corvids, and other avian species, with the potential to support various roosting bat species and western gray squirrel (*Sciurus griseus*).

Developed

Most of the project site, including the entire western project site, consists of urban land uses such as paved roads, buildings, and concrete or gravel lots that generally preclude the reestablishment of vegetation. The developed portions of the project site include the northern portion and terminus of Antoinette Lane, a fenced-in and unused gravel lot, and existing businesses.

These areas do not generally provide suitable habitat for many species; however, some species are suited to developed areas. Wildlife species commonly found in urbanized areas include mockingbird (*Mimus polyglottos*), house finch, rock dove (*Columbidae* spp.), and raccoon (*Procyon lotor*).

WILDLIFE

The developed nature of the project site and surrounding urban environment prevent many species from likely occurring in the project site. Common species occurring in disturbed habitats are discussed above. While the disturbed habitat on-site has the potential to support burrowing owl (*Athene cunicularia*), no ground squirrel burrows were observed during the reconnaissance-level site survey. Although no raptors were present at the time of the survey, several large stick nests were observed in a stand of mature eucalyptus trees.

SPECIAL-STATUS SPECIES

Special-status plant and animal species are those that are afforded special recognition by federal, state, or local resource agencies or organizations. Special-status species are of relatively limited distribution and generally require specialized habitat conditions. Special-status species are defined as follows:

1) Listed, proposed, or candidate for listing under the ESA or the CESA

2) Protected under other regulations (e.g., local policies, Migratory Bird Treaty Act [MBTA], and California Fish and Game Code [FGC])

3) Listed as CDFW Species of Special Concern and California Fully Protected species

4) Listed as rare, threatened, endangered, or uncommon; for example, CRPR 1A, 1B, or 2 plant species, by the California Native Plant Society

5) Species that receive consideration by the lead agency during environmental review pursuant to the California Environmental Quality Act (CEQA)

Special-Status Plant Species

Due to the predominance of fully developed areas and the disturbed nature of the undeveloped portions of the project site, no special-status plant species are expected to occur on the project site. Although Monterey cypress (CRPR 1B.2) is present on the project site, these individuals are outside of their known native (coastal) range and are therefore considered invasive at this location.

Special-Status Wildlife Species

Based on database search results and habitat availability, the only special-status wildlife species with the potential to occur on the project site are special-status roosting bat species and nesting birds and raptors.

Burrowing Owl

While the disturbed habitat and open areas adjacent to the project site may provide suitable habitat for burrowing owl, no small mammal burrows (i.e., home of primary prey species, and preferred starting point for burrowing owl burrows) were observed during the site visit. Therefore, because of the lack of available burrows, burrowing owls are not expected to occur on the project site.

Raptors and Migratory Birds

Various migratory and resident raptors and other birds have the potential to inhabit the project site. Some species are afforded specific protection, such as white-tailed kite (*Elanus leucurus*), which is a CDFW Fully Protected species. However, raptor and other bird species such as American kestrel (*Falco sparverius*), merlin (*Falco columbarius*), red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*A. striatus*), California horned lark (*Eremophila alpestris actia*), and loggerhead shrike (*Lanius ludovicianus*), species on the CDFW Watch List, are not protected under the ESA or the CESA. Nonetheless, the nests of all raptor species are protected under the MBTA and FGC Section 3503.5. The nests of nearly all avian species are protected under the MBTA, which makes it illegal to destroy active bird nests.

The project site contains a small area of disturbed habitat that provides suitable foraging habitat for a variety of migratory birds and raptors. In addition, the large eucalyptus trees on the north side of the project area and the mature trees along El Camino Real have the potential to provide suitable nesting habitat for raptors and other birds. During the site visit, several large stick nests were noted in the eucalyptus trees in the northern portion of the project site. Therefore, raptors and other birds may occupy portions of the project site.

Special-Status Bats

The database queries identified four special-status bat species in the project vicinity: western red bat (*Lasiurus blossevillii*), pallid bat (*Antrozous pallidus*), big free-tailed bat (*Nyctinomops macrotis*), and Townsend's big-eared bat (*Corynorhinus townsendii*), all CDFW Species of Special Concern. Habitat on-site for bat species consists of foraging habitat, night-roosting cover, maternity roost sites, and winter hibernacula. These bat species may forage in a variety of habitats. In general, the CDFW is most concerned about the loss of maternity roosting sites. Suitable roosting sites for these species include caves, rock crevices, cliffs, buildings, tree bark, and snags. The mature trees and buildings on the project site may provide marginally suitable roosting habitat for the bat species listed above; therefore, these species have the potential to occur in the project area.

3.3.3 REGULATORY FRAMEWORK

This section summarizes laws and regulations that apply to species and habitat. It also identifies environmental review and consultation requirements, as well as permits and approvals that may be required from local, state, and federal agencies, depending on whether protected species or habitats are present and on the location and type of development.

FEDERAL

Endangered Species Act

The Endangered Species Act of 1973 (ESA), as amended, provides protective measures for federally listed threatened and endangered species, including their habitats, from unlawful take (16 United States Code [USC] Sections 1531–1544). The ESA defines "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Title 50, Part 222, of the Code of Federal Regulations (50 Code of Federal Regulations [CFR] Section 222) further defines "harm" to include "an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including feeding, spawning, rearing, migrating, feeding, or sheltering."

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act of 1918 (16 USC Sections 703–711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Section 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR Section 21). Most of birds found in the project area would be protected under the MBTA.

STATE

California Endangered Species Act

Under the California Endangered Species Act (CESA), the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC Section 2070). The CDFW also maintains a list of "candidate species," which are species formally noticed as being under review for potential addition to the list of endangered or threatened species, and a list of "species of special concern," which serves to monitor species in decline, and others on species "watch lists." State-listed species are fully protected under the mandates of the CESA. Take of protected

species incidental to otherwise lawful management activities may be authorized under FGC Section 206.591. Authorization from the CDFW would be in the form of an incidental take permit.

California Fish and Game Code

Birds of Prey

Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto.

Fully Protected Species

California statutes also afford fully protected status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be taken, even with an incidental take permit.

California Native Plant Society

The CNPS maintains a list of special-status plant species based on collected scientific information. Designation of these species by the CNPS are as follows:

- CRPR 1A: plants presumed extinct
- CRPR 1B: plants rare, threatened, or endangered in California and elsewhere
- CRPR 2: plants rare, threatened, or endangered in California, but more numerous elsewhere
- CRPR 3: plants about which more information is needed—a review list
- CRPR 4: plants of limited distribution—a watch list

In general, plants appearing on CNPS List 1A, 1B, or 2 meet the criteria of Section 15380 of the CEQA Guidelines; thus, substantial adverse effects to these species would be considered significant.

LOCAL

City of South San Francisco General Plan

The Open Space and Conservation Chapter of the City's General Plan includes policies for the protection of biological resources. South San Francisco contains two areas that are set aside as habitat for the conservation of threatened and endangered species: San Bruno Mountain and a portion of Sign Hill (South San Francisco 2014). These areas are subject to the San Bruno Mountain Habitat Conservation Plan. However, the project site is located approximately 0.8 mile from the base of San Bruno Mountain and is not subject to the provisions of the HCP. The following policy from the General Plan is relevant to the project:

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.

City of South San Francisco Municipal Code

Title 13, Public Improvements, Chapter 13.30, Tree Preservation, establishes regulations for the preservation of trees. A tree is protected if it conforms to the following criteria: (1) Any tree with a circumference of 48 inches or more when measured 54 inches above natural grade; (2) A tree or stand of trees so designated by the Director of the Parks and Recreation Department based on findings that it is unique and of importance to the public due to its unusual appearance, location, historical significance or other factor; or (3) A stand of trees in which the Director has determined each tree is dependent upon the others for survival. The removal or alternation of a protected tree requires a permit from the Director. The following measures would be applied to protected trees not slated for removal:

a) Chemicals or other construction materials shall not be stored within the dripline of protected trees.

b) Drains shall be provided as required by the Director whenever soil fill is placed around protected trees.

c) Signs, wires, or similar devices shall not be attached to protected trees.

d) If the proposed development, including any site work for the development, will encroach upon the dripline of a protected tree, special measures shall be utilized, as approved by the Director of the Parks and Recreation Department or the Parks and Recreation Commission, to allow the roots to obtain oxygen, water, and nutrients as needed. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter, if authorized at all by the Director, shall be minimized and subject to such conditions as may be imposed by the Director. No significant change in existing ground level shall be made within the dripline of a protected tree. No burning or use of equipment with an open flame shall occur near or within the protected perimeter.

e) Underground trenching for utilities shall avoid major support and absorbing tree roots of protected trees. If avoidance is impractical, tunnels shall be made below the roots. Trenches shall be consolidated to service as many units as possible. Trenching within the dripline of protected trees shall be avoided to the greatest extent possible and shall only be done under the at-site directions of a certified city arborist.

f) No concrete or asphalt paving shall be placed over the root zones of protected trees.

g) No compaction of the soil within the root zone of protected trees shall occur.

The following measures would be applied to protected trees that are planned to be removed:

a) Replacement shall be three 15-gallon-size or two 24-inch-box-minimum-size landscape trees for each tree removed as determined below. However, the Director of the Parks and Recreation Department maintains the right to dictate size and species of trees in new developments. Permits for tree removal shall expire after four months. Applicants shall reapply if work has not been completed within four months after the Director's approval. A deposit to the tree planting fund shall be made by an applicant and held by the Parks and Recreation Department for tree replacements. Deposits will be refunded on proof of replanting trees. If proof that the replacement trees have been planted has not been submitted to the Director within four months of the tree removal, a payment to the tree

planting fund in the amount of the current cost of two 24-inch-box trees of a species dictated by the Director shall be made.

b) Any protected tree removed without a valid permit shall be replaced by three 24-inch-box-minimum-size landscape trees, of a species approved by the Director, for each tree so removed as determined below. If proof that the replacement trees have been satisfactorily planted has not been submitted to the Director within four months of the tree removal, a payment to the tree planting fund in the amount of the current cost of three 24-inch-box trees, of a species dictated by the Director, shall be made to the City, in an amount not to exceed $1,000. Such payment shall be in addition to any other penalties imposed by the City for violation of this chapter.

c) Replacement of a protected tree can be waived by the Director if a sufficient number of trees exists on the property to meet all other requirements of the tree preservation chapter.

d) At the Director's discretion, if replacement trees, as designated in subsection (a) or (b) of this section, as applicable, cannot be planted on the property, payment in the amount of the replacement value of the tree as determined by the International Society of Arboriculture Standards, plus the costs to the City to plant an equivalent tree elsewhere in the city, shall be made to the City.

e) All payments made in restitution for violation of the tree preservation chapter, or non-refunded tree replacement deposits retained by the City, shall be deposited in the tree planting fund, to be drawn upon for public tree purchase and planting.

Changes in the CEQA Guidelines

There have been no changes in the CEQA Guidelines since 2011 that are relevant to the analysis of biological impacts.

3.3.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the CEQA Guidelines Appendix G thresholds of significance. A project is considered to have significant impacts if implementation of the project would:

1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the US Fish and Wildlife Service (USFWS).

2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

3) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means.

4) 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.

5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

6) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

7) Substantially reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels.

CEQA Guidelines Section 15380 further provides that a plant or wildlife species may be treated as "rare or endangered" even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future.

METHODOLOGY

The analysis of biological impacts was conducted by reviewing the previous analysis of the project setting and impact discussion. Although the previous 2011 ECR/C EIR did not identify any impacts on biological resources, a review of modern database searches and a site survey were conducted to map any changes to vegetative communities or suitable special-status species habitat.

A search of the USFWS Information for Planning and Conservation (IPaC) System (2017a) and Critical Habitat Portal (2017b) was performed to identify federally protected species and their habitats that may be affected by the project. In addition, a query of the CNDDB (CDFW 2017) was conducted for the South San Francisco US Geological Survey (USGS) 7.5-minute quadrangle (quad) and all adjacent quads (San Francisco North, San Francisco South, Point Bonita, Montara Mountain, Oakland West, and San Mateo) to identify known processed and unprocessed occurrences for special-status species. Lastly, the CNPS (2017) database was queried to identify additional special-status plant species with the potential to occur in the aforementioned quads. Raw data from the database queries can be found in **Appendix BIO**. **Figure 3.3-2, Previously Recorded Occurrences of Special-Status Species within One Mile of the Project Site,** depicts the locations of special-status species recorded within a 1-mile radius of the project site.

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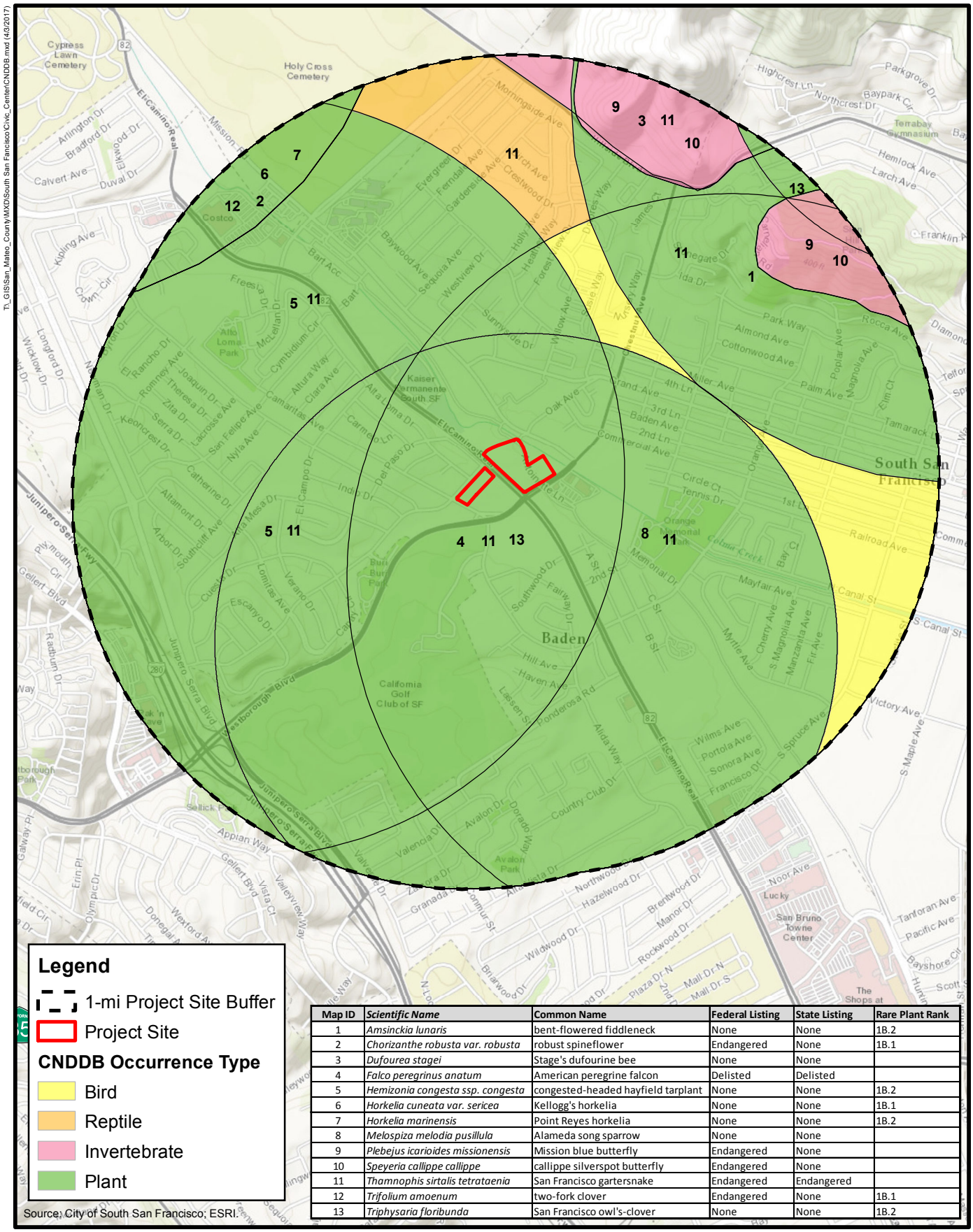

Map ID	*Scientific Name*	Common Name	Federal Listing	State Listing	Rare Plant Rank
1	*Amsinckia lunaris*	bent-flowered fiddleneck	None	None	1B.2
2	*Chorizanthe robusta var. robusta*	robust spineflower	Endangered	None	1B.1
3	*Dufourea stagei*	Stage's dufourine bee	None	None	
4	*Falco peregrinus anatum*	American peregrine falcon	Delisted	Delisted	
5	*Hemizonia congesta ssp. congesta*	congested-headed hayfield tarplant	None	None	1B.2
6	*Horkelia cuneata var. sericea*	Kellogg's horkelia	None	None	1B.1
7	*Horkelia marinensis*	Point Reyes horkelia	None	None	1B.2
8	*Melospiza melodia pusillula*	Alameda song sparrow	None	None	
9	*Plebejus icarioides missionensis*	Mission blue butterfly	Endangered	None	
10	*Speyeria callippe callippe*	callippe silverspot butterfly	Endangered	None	
11	*Thamnophis sirtalis tetrataenia*	San Francisco gartersnake	Endangered	Endangered	
12	*Trifolium amoenum*	two-fork clover	Endangered	None	1B.1
13	*Triphysaria floribunda*	San Francisco owl's-clover	None	None	1B.2

Figure 3.3-2
Previously Recorded Occurrences of Special-Status Species within One Mile of the Project Site

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PROJECT IMPACTS AND MITIGATION MEASURES

Candidate, Sensitive, or Special-Status Plant or Animal Species (Standard of Significance 1)

Impact 3.3.1 Project construction could result in impacts on special-status species, including special-status bats and nesting raptors and other birds. This impact would be **less than significant with mitigation**.

2011 ECR/C Area Plan Impacts

The 2011 ECR/C EIR did not find any impacts to special-status species within the planning area. Three special-status species were analyzed for the potential to occur in the project area: San Francisco garter snake, Alameda song sparrow, and congested-headed hayfield tarplant. The analysis concluded that there were no wetlands, coastal resources, or other habitats within the planning area suitable to support these species.

Subsequent Project Impacts

The project site is within the original 2011 ECR/C planning area and remains fairly consistent with the conditions analyzed in the 2011 EIR. The project site does not contain any wetlands, adjacent coastal resources, or other aquatic features that might provide suitable habitat for the above-mentioned species. Although Colma Creek is located immediately east of the eastern project site, it is completely channelized and lined with concrete sides, with no aquatic vegetation present. Therefore, Colma Creek in this area is not suitable to support special-status aquatic species such as western pond turtle (*Actinemys marmorata*). Therefore, the three species discussed in the previous EIR still do not have the potential to occur on the project site. However, the site survey results showed that the disturbed habitat and large trees on the project site may provide suitable habitat for nesting raptors, migratory birds, and special-status bats.

The large eucalyptus trees and mature ornamental trees may provide suitable nesting habitat for raptors and other birds. The disturbed habitat is suitable foraging habitat for some raptors and other birds, as well as nesting habitat for ground nesting birds such as killdeer (*Charadrius vociferous*). The large trees may also provide suitable roosting habitat for various special-status bat species, and the disturbed habitat provides suitable foraging habitat. Construction activities involving tree removal, demolition, grading, and vegetation clearing may cause direct mortality or damage to nests. In addition, construction activities near active nests may result in nest abandonment, which would be a significant impact. Therefore, mitigation measures **MM 3.3.1a** through **MM 3.3.1f** would be required. Implementation of these mitigation measures would reduce the revised project's impacts to **less than significant**.

Mitigation Measures

MM 3.3.1a If clearing and/or construction activities would occur during the bird breeding season (typically January through July for raptors and February 15 through August 15 for other birds), a qualified biologist shall conduct preconstruction surveys to identify active nests within 3 days prior to construction initiation, particularly vegetation clearing and ground-disturbing activities. Surveys must be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within the proposed impact area, including construction access routes and a 500-foot buffer (if feasible). If no active nests are found, no further mitigation is required. Surveys shall be

repeated if construction activities are delayed or postponed for more than 7 days.

MM 3.3.1b If an active nest is located during preconstruction surveys, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is deemed inactive by a qualified biologist. Restrictions shall include establishment of exclusion zones (no ingress of personnel or equipment) at a minimum radius of 300 feet around an active raptor nest and 100 feet around other active bird nest(s). Activities permitted within exclusion zones and the size may be adjusted through consultation with the CDFW.

MM 3.3.1c Vegetation containing active nests that must be removed as part of the project shall be removed during the non-breeding season (August 16 through December 31).

MM 3.3.1d Prior to the removal of any trees or buildings, a qualified biologist shall conduct a bat survey between March 1 and July 31. If bat roosts are identified, the City shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to roosting season (typically May to August) and prior to the start of construction activities. If maternity roosts are identified during the maternity roosting season (typically May to September), they must remain undisturbed until a qualified biologist has determined the young bats are no longer roosting. If roosting is found to occur on-site, replacement roost habitat (e.g., bat boxes) shall be provided to offset the roosting sites removed. If no bat roosts are detected, then no further action is required if the trees and buildings are removed prior to the next breeding season. If removal is delayed, an additional survey shall be conducted 30 days prior to removal to ensure that a new colony has not established itself.

MM 3.3.1e If a female or maternity colony of bats are found on the project site, and the project can be constructed without the elimination or disturbance of the roosting colony (e.g., if the colony roosts in a large tree not planned for removal), a qualified biologist shall determine what buffer zones shall be employed to ensure the continued success of the colony. Such buffer zones may include a construction-free barrier of 200 feet from the roost and/or the timing of the construction activities outside of the maternity roosting season (after July 31 and before March 1).

MM 3.3.1f If an active nursery roost is documented on-site and the project cannot be conducted outside of the maternity roosting season, bats shall be excluded from the site after July 31 and before March 1 to prevent the formation of maternity colonies. Nonbreeding bats shall be safely evicted, under the direction of a bat specialist in coordination with the CDFW.

Riparian Habitat or Other Sensitive Communities (Standard of Significance 2)

Impact 3.3.2 There are no riparian habitat or special-status vegetation communities on the project site. Therefore, the project would have **no impact**.

2011 ECR/C Area Plan Impacts

The 2011 ECR/C EIR did not identify any riparian habitats or other natural communities in the planning area.

Subsequent Project Impacts

The conditions on the project site have not changed since the original EIR analysis in regard to special-status communities. There are still no riparian habitats or special-status vegetation communities in the project site. Therefore the revised project would continue to have **no impact**.

Mitigation Measures

None required.

Wetlands or Waters of the United States (Standard of Significance 3)

Impacts 3.3.3 There are no wetlands or waters of the United States on the project site. Therefore, the project would have **no impact**.

2011 ECR/C Area Plan Impacts

The 2011 ECR/C EIR did not identify any wetlands or other waters of the United States in the planning area.

Subsequent Project Impacts

The conditions on the project site have not changed since the original EIR analysis in regard to wetlands and aquatic resources. There are still no wetlands or waters of the United States on the project site. Therefore the revised project would continue to have **no impact**.

Mitigation Measures

None required.

Wildlife Movement (Standard of Significance 4)

Impact 3.3.4 The project would not result in impacts on the movement of native resident or migratory fish or wildlife species or established migratory corridors. As such, the project would have **no impact.**

2011 ECR/C Area Plan Impacts

The 2011 ECR/C EIR analysis showed that the project site was highly urbanized, was not located in a migratory corridor, and would not interfere with any wildlife migration routes.

Subsequent Project Impacts

The conditions in the project site have not changed since the original EIR analysis in regard to wildlife movements. Available data on movement corridors and linkages was accessed via the CDFW BIOS Viewer (CDFW 2017). Data reviewed includes the Essential Connectivity Areas [ds623] layer and the Missing Linkages in California [ds420] layer. The project site is not located within an

identified corridor. In addition, the project area is primarily urbanized, does not provide suitable movement opportunities, and is surrounded by additional urban land uses. Therefore the revised project would continue to have **no impact**.

Mitigation Measures

None required.

Conflict with Local Policies (Standard of Significance 5)

Impact 3.3.5 The project may result in the removal of several trees protected under the City of South San Francisco Municipal Code. The project would comply with the provisions in the Municipal Code regarding tree removal permits. In addition, the project would not conflict with General Plan policies regarding natural resources. Therefore, this impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

The 2011 ECR/C EIR analysis identified that tree removals may be required under implementation of the El Camino Real/Chestnut Avenue Area Plan. Tree removals would be subject to City of South San Francisco Municipal Code, Chapter 13.30, Tree Preservation. In addition, the 2011 ECR/C EIR found that the Area Planit would not conflict with the City's 1999 General Plan.

Subsequent Project Impacts

The project impacts would not differ from those analyzed in the 2011 ECR/C EIR. The project would still require removal of several trees that would be subject to the City's Municipal Code, Chapter 13, Tree Preservation. The code requirements would protect trees that are not removed by taking care to keep chemicals and other construction materials away from the dripline of protected trees, not encroaching upon the dripline of a protected tree, not attaching signs, wires, or similar devices to the trees, and safeguarding the major root areas of protected trees. The code also requires replacement trees of three 15-gallon-size or two 24-inch-box-minimum-size landscape trees for each tree removed as approved with a tree permit. In addition, the project would not conflict with General Plan policies regarding natural resources. Therefore, the project would comply with all applicable land use plans and policies regulating biological resources. The revised project's impacts would continue to be **less than significant**.

Mitigation Measures

None required.

Conservation Plans (Standard of Significance 6)

Impact 3.3.6 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 plan. The project would have **no impact.**

2011 ECR/C Area Plan Impacts

The 2011 ECR/C EIR analysis stated that the planning area was not located within any conservation plan areas. The project was not subject to the San Bruno Mountain Habitat Conservation Plan. There was no impact identified.

Subsequent Project Impacts

The project impacts would be similar to those analyzed in the 2011 ECR/C. The San Bruno Mountain Habitat Conservation Plan covers the open areas and habitats on San Bruno Mountain. Although San Bruno Mountain is located less than 1 mile from the project site, the project would not be subject to the HCP. The revised project would continue to have **no impact**.

Mitigation Measures

None required.

Special-Status Species Populations (Standard of Significance 7)

Impact 3.3.7 The project may reduce or restrict the range of an endangered, rare, threatened, or special-status animal or plant species, causing it to drop below self-sustaining levels. As discussed in Impact 3.3.1, special-status species may be affected by the project. The impact would be **less than significant with mitigation.**

2011 ECR/C Area Plan Impacts

Refer to Impact 3.3.1 above. The 2011 ECR/C EIR did not find any impacts to special-status species in the planning area.

Subsequent Project Impacts

Refer to Impact 3.3.1 above. The project has the potential to impact special-status bats and raptors and other birds through direct mortality or disturbance from construction activities. However, implementation of mitigation measures **MM 3.3.1a** through **MM 3.3.1f** would reduce impacts to **less than significant with mitigation** by restricting the timing of construction activities, requiring preconstruction surveys for nests and bat roosts, and requiring buffers for active nests on or near the project site.

Mitigation Measures

MM 3.3.1a through MM 3.3.1f

3.3.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The project site and the surrounding areas of San Mateo County were considered for the purpose of evaluating cumulative biological resources impacts.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Biological Resources Impacts

Impact 3.3.8 Cumulative development could result in impacts on biological resources. The proposed project's contribution would be **less than cumulatively considerable with mitigation**.

2011 ECR/C Area Plan Impacts

The 2011 ECR/C EIR did not identify any impacts on biological resources and did not find any cumulatively considerable impacts on biological resources.

Subsequent Project Impacts

Future development in San Mateo County may result in degradation of wildlife habitat and protected wetlands. This may result in impacts on special-status species when combined with other habitat impacts occurring from development in surrounding areas. Increased development and disturbance created by human activities (e.g., fires, increased nighttime lighting, and reduced access to habitat and movement corridors) could result in direct mortality, habitat loss, and deterioration of habitat suitability.

The project site is located in an urban area and is surrounded by development. The approximately 1.5 acres of disturbed habitat provides marginally suitable habitat for several species of birds and bats. Implementation of the project would not result in a substantial reduction in habitat for special-status species when combined with the development in the larger region. Implementation of mitigation measures **MM 3.3.1a** through **MM 3.3.1f** would reduce the proposed project's impacts and further ensure that the revised project would continue to have a **less than cumulatively considerable** contribution to impacts on special-status species.

Mitigation Measures

MM 3.3.1a through **MM 3.3.1f**

3.3.6 REFERENCES

CDFW (California Department of Fish and Wildlife). 2017. California Natural Diversity Database (CNDDB) QuickView Tool in BIOS 5. Sacramento: CDFW Biogeographic Data Branch. https://www.dfg.ca.gov/biogeodata/cnddb /mapsanddata.asp.

CNPS (California Native Plant Society). 2017. *Inventory of Rare and Endangered Plants* (online edition, v8-01a). Sacramento: CNPS. http://www.rareplants.cnps.org/.

South San Francisco, City of. 2011a. *El Camino Real/Chestnut Avenue Area Plan – General Plan Amendment.*

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USFWS (US Fish and Wildlife Service). 2017a. Information for Planning and Conservation (IPaC) System. http://ecos.fws.gov/ipac/.

———. 2017b. Critical Habitat Portal. http://ecos.fws.gov/crithab/.

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3.4 – CULTURAL RESOURCES

This section considers and evaluates the proposed project's potential impacts on cultural resources. Cultural resources include historic buildings and structures, historic districts, historic resource sites, prehistoric and historic archaeological sites, and other prehistoric and historic objects and artifacts. Paleontological resources include vertebrate, invertebrate, and plant fossils.

The following definitions are common terms used to discuss the regulatory requirements and treatment of cultural resources:

- *Cultural resources* is the term used to describe several different types of properties: prehistoric and historical archaeological sites; architectural properties such as buildings, bridges, and infrastructure; and resources of importance to Native Americans.

- *Historic properties* is a term defined by the National Historic Preservation Act (NHPA) as any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register of Historic Places (NRHP), including artifacts, records, and material remains related to such property.

- *Historical resource* is a California Environmental Quality Act (CEQA) term that includes buildings, sites, structures, objects, or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance and is eligible for listing or is listed in the California Register of Historical Resources (CRHR).

- *Paleontological resource* is defined as including fossilized remains of vertebrate and invertebrate organisms, fossil tracks and trackways, and plant fossils. A unique paleontological site would include a known area of fossil-bearing rock strata.

The information in this subsection is based on the cultural resources report prepared for the project by Michael Baker International (**Appendix CUL**).

3.4.1 SEIR IMPACT SUMMARY

A summary of the Community Civic Campus Project impact conclusions related to cultural resources is provided below.

Impact Number	Impact Topic	Impact Significance
3.4.1	Adverse effect on historic resources	Less than significant
3.4.2	Adverse effect on archaeological resources	Less than significant with mitigation
3.4.3	Adverse effect on paleontological resources	Less than significant with mitigation
3.4.4	Adverse effect on human remains	Less than significant
3.4.5	Cumulative impacts on cultural resources	Less than cumulatively considerable with mitigation

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.4.4.

3.4.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

The original project area consisted of 98 acres approximately 1 mile west of the San Francisco Bay; the area has been urbanized with residential, commercial, and institutional land uses. The planning area is generally flat to gently sloped and is located in the natural floodplain of Colma Creek. The area had been under human habitation for some time, from prehistoric times to modernity.

No sites in the planning area were listed on the National Register of Historic Places. However, based on a records search by the Northwest Information Center (NWIC) of the California Historic Resources Information System at Sonoma State University, Native American archaeological resources and historic period cultural resources were located in the planning area. These resources were:

- A prehistoric site identified in the General Plan with the site number CA-SMA-299. This site however has been completely destroyed.
- A prehistoric site adjacent to the planning area with the site number CA-SMA-355.
- 1281 Mission Road is listed as an early twentieth century Queen Anne–style cottage built in 1900.
- 1080 Mission Road was the Twelve Mile house, a waystation for stagecoaches that has been demolished. The site is identified as a historic marker site through the Historic Marker Program created by the City of South San Francisco Historic Preservation Commission.

PROJECT SITE SETTING

Regional Context

Prehistory

The first survey of archaeological sites in the San Francisco Bay region was led by N. C. Nelson for the University of California at Berkeley between 1906 and 1908, documenting 425 shell mounds. These shell mounds typified Bay Area archaeology and reflected its economic unity, which relied greatly on marine resources. Cultural materials discovered at the University Village Complex (SMA-277) in San Mateo County indicate that the San Francisco Peninsula Region was inhabited between circa 3,500 and 2,500 BC. Excavation and analysis of that site showed that the complex is earlier than middle Horizon, yet unlike Early Horizon deposits, which led excavators to believe that a pre-Costanoan or Early Bay culture once existed (South San Francisco 2011b).

Native American Period

The area was home to the Ohlone Native American tribe prior to the arrival of European settlers. Several villages were located in the area, including along Colma Creek (South San Francisco 2011b).

Historic and Cultural Context

Spanish explorers were the first Europeans to arrive in the San Francisco Bay area. Juan Bautist de Ana led an expedition in 1776 that established the San Francisco Mission. The Santa Clara Mission was established several months later, and a road stretching between the two became a heavily traveled route. This road was called El Camino Real. Its location is the current Mission Road and not the current State Route 82, which is named El Camino Real.

During the Mexican rule of California, large tracts of land were issued to private individuals. The project site was part of the 1820 Rancho Buri Buri land grant, which was one of the largest land grants on the San Francisco Peninsula.

In 1856, Charles Lux bought Rancho Buri Buri and established the community of Baden. Baden was never formally incorporated but was an agricultural and pastoral community. Charles Lux and a rancher named Henry Miller founded a cattle company that supplied San Francisco stockyards. The first local railroad was established in 1863. In 1888, the South San Francisco Land and Improvement Company bought Rancho Buri Buri and an additional 2,000 acres and founded the city of South San Francisco. The city was formally incorporated in 1908 (South San Francisco 2011b).

KNOWN CULTURAL RESOURCES IN AND AROUND THE PROJECT SITE

Records Search

On February 23, 2017, Michael Baker International staff conducted a records search at the Northwest Information Center. The NWIC, as part of the California Historical Resources Information System, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and reports for San Mateo County. As part of the records search, the following federal and California inventories were reviewed:

- California Inventory of Historic Resources.
- California Points of Historical Interest.
- California Historical Landmarks.
- Directory of Properties in the Historic Property Data File. The directory includes the listings of the National Register of Historic Places, National Historic Landmarks, California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest for resources in San Mateo County.

No cultural resources were identified within the east or west project sites. Eight resources were identified within a quarter-mile of the east or west project sites. Summary descriptions of the resources are as follows:

- Historic Resources
  - P-41-000394 – This circa 1930 industrial building was recorded in 1993. It was recommended not eligible for listing in the NRHP. It is not listed in the San Mateo County Historic Property Data File.

  - P-41-000883 – This circa 1860 residence located at 1053 Grand Avenue was recorded in 1986. It is listed in the San Mateo County Historic Property Data File as requiring evaluation.

  - P-41-000384 – This circa 1930 single-family residence located at 114 B Street was determined not eligible for listing in the NRHP in 1996.

  - P-41-000386 – This 1945 Mediterranean revival bungalow located at 136 B Street was determined not eligible for listing in the NRHP in 1996.

  - P-41-000397 – This circa 1930 cottage located at 132 B Street was determined not eligible for listing in the NRHP in 1996.

  - P-41-000398 – This circa 1950 single-family house located at 116 B Street was determined not eligible for listing in the NRHP in 1996.

- Archaeological Resources

  - P-41-000409/CA-SMA-299 – This shell midden site was originally recorded in 1989. It was identified as a 2-kilometer-long shell midden with traces of shell and fire-altered rock, plus two flakes. The site is noted to have been completely disturbed by landfill, planting of exotic species, and urbanization. The site boundaries are unknown, and the site is mapped outside and north of the east project site.

  - P-41-000495/CA-SMA-355 – This Late Period habitation site was discovered during construction and was excavated and recorded in 2000. It consists of very dark grey to black stiff clayey midden containing abundant burnt and unburnt marine shell fragments, burnt and unburnt bone fragment, burnt and fire-cracked rock, charcoal, chert flakes, and fragments of ground stone. Clark notes that the midden deposits appear to be more than 2 meters thick at auger locations and the site is entirely buried with no surface indications. The site boundaries are unknown and the site is mapped outside and east of the east project site.

Ten cultural resources studies were completed within a quarter-mile radius of the east and west project sites. No cultural resources studies were identified for the west project site; seven cultural resource studies were identified for the east project site. These studies identified no cultural resources on the project site. Each study is summarized in **Table 3.4-1, Cultural Resource Studies within One-Quarter-Mile Radius.**

TABLE 3.4-1
CULTURAL RESOURCE STUDIES WITHIN ONE-QUARTER-MILE RADIUS

Author	Date	Title
David Chavez	1977	Cultural Resources Evaluation of the Colma Wastewater Collection System, Town of Colma, San Mateo County, California.
Carolyn Rice	1994	BART-San Francisco Airport Extension Project: Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement – Archaeological Survey Report
Laurence H. Shoup, Mark Brack, Nancy Fee, and Bruno Giberti	1994	Historic Architectural Survey Technical Report
Matthew R. Clark	2008	Section 106 Compliance for the South San Francisco Wet Weather Program: Phase II Archaeological Monitoring Report.
Randy Wiberg	2011	Memorandum: Cultural Resources Surveys for the Crystal Springs Pipeline No. 2 Replacement Project (Construction Deviations Supplement)
Allen G. Pastron and Michelle Touton	2011	Historic Context and Archaeological Survey Report for the Regional Groundwater Storage and Recovery Project Area, San Mateo County, California
Sunshine Psota	2015	Historic Property Survey Report for the South San Francisco Grand Blvd. Project: El Camino Real (SR82) from Chestnut Avenue to Arroyo Drive

Source: Michael Baker International 2017

Historical Map Review

Historical maps for archaeological, ethnographic, historical, and environmental information about the west and east project sites and their vicinities were reviewed to determine the presence of cultural resources.

The east and west project sites were within Rancho Buri Buri in 1868. The Southern Pacific Railroad-Monterey Line was depicted within the east project site by 1896, and by 1915, both the Southern Pacific Railroad and United Interurban Electric Railroad ran through the east project site. From at least 1896 to 1915, the east project site appears to have been part of Baden Station, though no buildings are depicted. The railroads were located in the east project site until circa 1990. The Pet Club building, located at 1 Chestnut Avenue, is first depicted in area maps and aerial photographs in 1956.

Native American Consultation

No tribes have requested consultation with the City in accordance with Assembly Bill 52. No Native American consultation was conducted in support of the proposed project; however the City has provided notification of the Notice of Preparation and the Notice of Availability of the Subsequent EIR to the Native American Heritage Commission.

Project Site Survey

Michael Baker Senior Cultural Resources Manager Nichole Jordan Davis conducted a cultural resources field survey of the east and west project sites on February 27, 2017. The entire east and west project sites were accessible during the survey. Ground visibility on the east project site varied from 0 to 100 percent. The areas of 100 percent visibility were recently tilled and were surveyed

using 10-meter transects. Areas that had not been tilled had 0 percent ground visibility and were surveyed using 20-meter transects. Ground visibility on the west project site was 0 percent because the area was fully paved. No archaeological deposits were observed.

Built Environment Evaluations

The existing buildings on the east and west project sites were evaluated for their eligibility for listing in the California Register of Historical Resources. The Municipal Services Building on the western project site and the existing retail location were not deemed eligible for listing. Full explanations for each building can be found in Attachment 3 to the cultural resources letter report contained in **Appendix CUL**.

3.4.3 REGULATORY FRAMEWORK

FEDERAL

Federal regulations for cultural resources are primarily governed by Section 106 of the National Historic Preservation Act of 1966, which applies to actions taken by federal agencies. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing on the NRHP. The criteria for determining NRHP eligibility are found in Title 36 Code of Federal Regulations (CFR) Part 60. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and affords the federal Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The council's implementing regulations, Protection of Historic Properties, are found in Title 36 CFR Part 800.

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for NRHP eligibility based on visual surface and subsurface evidence (if available) at each site's location, information gathered during the literature and records searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site.

STATE

Historic Resources

Pursuant to Public Resources Code (PRC) Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Historical resource is a term with a defined statutory meaning (PRC Section 21084.1 and CEQA Guidelines Section 15064.5[a], [b]). The term embraces any resource listed in or determined to be eligible for listing in the California Register of Historical Resources. The CRHR is administered through the State Office of Historic Preservation and includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be historical resources for

purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and California Code of Regulations, Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process (PRC Section 5024.1[g]), lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project's impacts on historical resources (PRC Section 21084.1 and CEQA Guidelines Section 15064.5[a][3]). Following CEQA Guidelines Section 15064.5(a) and (b), a historical resource is defined as any object, building, structure, site, area, place, record, or manuscript that:

a) Is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California; and

b) Meets any of the following criteria:

   1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

   2) Is associated with the lives of persons important in our past;

   3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

   4) Has yielded, or may be likely to yield, information important in prehistory or history.

Archaeological Resources

In addition to the mitigation provisions pertaining to accidental discovery of human remains (PRC Section 5097.98), the CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of archaeological resources, generally. Pursuant to CEQA Guidelines Section 15064.5(f), these provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be a historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.

Furthermore, under CEQA, public agencies must consider the effects of their actions on unique archaeological resources. Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Archaeological resources may qualify as historical resources, and PRC Section 5024 requires consultation with the Office of Historic Preservation when a project may impact archaeological resources located on State-owned land.

CEQA also requires lead agencies to consider whether projects would impact unique archaeological resources as outlined in PRC Section 21083.2(g). Treatment options under Section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other

acceptable methods of mitigation under Section 21083.2 include excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a unique archaeological resource).

Paleontological Resources

Paleontological resources are classified as nonrenewable scientific resources and are protected by state statute (PRC Chapter 1.7, Section 5097.5, and CEQA Guidelines Appendix G). No state or local agencies have specific jurisdiction over paleontological resources. No state or local agency requires a paleontological collecting permit to allow the recovery of fossil remains discovered as a result of construction-related earth-moving on state or private land on a project site.

LOCAL

City of South San Francisco General Plan

The Open Space and Conservation Chapter of the City's General Plan includes policies for the protection of cultural resources.

7.5-G-I 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.

7.5-G-2 Encourage municipal and community awareness, appreciation, and support for South San Francisco's historic, cultural, and archaeological resources. 7.5-1-4. Ensure the protection of known archaeological resources in the city by requiring a records review for any development proposed in areas of known resources.

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 Historic Preservation Survey (1985–1986)

The survey identifies the architectural and historic resources of South San Francisco. The survey is intended to serve as a resource in the planning process, to integrate the preservation of cultural resources with decisions affecting South San Francisco. By identifying potential historic resources, the survey allows for the Historic Preservation Commission to review all requests for demolition permits for these resources.

South San Francisco Historic Preservation Commission

The commission designates historic resources; reviews applications for altering or demolishing historic resources; disseminates information to the public concerning structures, sites, and areas deemed worthy of preservation; and considers and recommends to the City Council methods for encouraging and achieving historical or architectural preservation. Procedures to identify and designate historic resources are outlined in Section 2.56.120, Procedures for Designation of Historic Resources, of the City's Municipal Code.

El Camino Real/Chestnut Avenue Area Plan

The ECR/C Area Plan does not include policies regarding cultural resources.

3.4.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Following Public Resources Code Sections 21083.2, 21084.1, and 5097.98, and CEQA Guidelines Section 15064.5 and Appendix G, cultural resource impacts are considered to be significant if project implementation would result in any of the following:

1) Cause a substantial adverse change in the significance of a historical resource as defined in Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5, respectively.

2) Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.

3) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

4) Disturb or discover any human remains, including those interred outside of formal cemeteries.

CEQA Guidelines Section 15064.5 defines "substantial adverse change" as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired. CEQA Guidelines Section 15064.5(b)(2) defines "materially impaired" for purposes of the definition of substantial adverse change as follows:

> The significance of an historical resource is materially impaired when a project:
>
> (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
>
> (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
>
> (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

CEQA requires that if a project would result in an effect that may cause a substantial adverse change in the significance of a historical resource or would cause significant effects on a unique archaeological resource, then alternative plans or mitigation measures must be considered. Therefore, prior to assessing effects or developing mitigation measures, the significance of cultural resources must first be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

- Identify potential historical resources and unique archaeological resources;
- Evaluate the eligibility of historical resources; and
- Evaluate the effects of the project on eligible historical resources.

Changes in the CEQA Guidelines

There have been no changes in the CEQA Guidelines since 2011 that are relevant to the analysis of cultural resources impacts.

METHODOLOGY

The following impact analysis is based on a historical records search for the project at the NWIC, historical map review, a project site survey, and built environment evaluations.

The CRHR evaluates a resource's historic significance based on the following four criteria:

- Criterion 1 (Event): Resources associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- Criterion 2 (Person): Resources associated with the lives of persons important to local, California, or national history.
- Criterion 3 (Design/Construction): Resources that embody the distinctive characteristics of a type, period, region, or method of construction or that represents the work of a master or possess high artistic values.
- Criterion 4 (Information Potential): Resources that have yielded or have the potential to yield information important to the prehistory or history of the local area, California, or the nation.

PROJECT IMPACTS AND MITIGATION MEASURES

Adverse Effect on Historic Resources (Standard of Significance 1)

Impact 3.4.1 Project demolition and construction may have the potential to adversely affect historic resources that appear on state historical inventories or may be eligible for inclusion on such lists. This impact would be **less than significant**.

ECR/C Area Plan Impacts

The NWIC identified one recorded property in the planning area. This property, located at 1281 Mission Road, is listed as an early twentieth century Queen Anne–style cottage, built circa 1900–1915. However, the cottage has since been demolished, and the current owner of 1281 Mission Road (APN 010-430-180) is listed as the San Mateo County Transit District.

The NWIC also identified seven unrecorded properties in and around the planning area meeting the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value. However, in addition to age, these unrecorded buildings, structures, and objects would have to possess architecturally significant elements or integrity to be eligible for inclusion on the CRHR. The 1985–1986 South San Francisco Historic Preservation Survey does not identify any local historic resources in the planning area.

Compliance with federal, state, and local laws would reduce potential impacts on historic resources to less than significant (South San Francisco 2011b).

Subsequent Project Impacts

The ECR/C EIR identified historic resources in the planning area. A new search was conducted to determine whether any resources are located on the project site. During the search, conducted at the NWIC at Sonoma State University, eight potentially historic resources were identified within one-quarter mile of the project site. These sites are listed above. However, none are located on the project site. A historic resources evaluation was undertaken on the existing buildings on the eastern and western project sites; the structures were not considered eligible for listing on the CRHR. The revised project's demolition and construction would continue to have a **less than significant** impact on historic resources.

Mitigation Measures

None required.

Adverse Effect on Archaeological Resources (Standards of Significance 2)

Impact 3.4.2 Project construction may have the potential to adversely affect undiscovered archaeological resources. This impact would be **less than significant with mitigation**.

2011 ECR/C Area Plan Impacts

One Native American archaeological resource was found within the planning area, but evaluation of the resource found that the site had been destroyed and the project would have no impact. The planning area is moderately sensitive for historic archaeological materials since it includes the former edge of the marshlands. There may be potential for project construction to impact prehistorical archaeological resources in the planning area.

Pursuant to CEQA Guidelines Section 15064.5(f), if potentially significant cultural resources are discovered, work would stop in that area until a qualified archaeologist can assess the significance of the find, and, if necessary, develop appropriate treatment measures in consultation with the City of South San Francisco and other appropriate agencies and interested parties. If the archaeologist determines that the find does not meet the CEQA standards of significance, construction may proceed. On the other hand, if the archaeologist determines that further information is needed to evaluate significance, Department of Economic and Community Development staff would be notified and a data recovery plan would be prepared (South San Francisco 2011b).

Subsequent Project Impacts

The NWIC identified two archaeological Native American sites within one-quarter mile of the project site. One was a shell midden site and the other was a past habitation site. Both sites were identified outside of the western project site. Due to the eastern project site's location near Colma Creek and the location of two identified archaeological resources near the site, project construction has the potential to impact unidentified archaeological resources during ground disturbance. Therefore, mitigation measures **MM 3.4.2a** and **MM 3.4.2b** would be required, which would reduce the project's impact through construction worker education and site monitoring on the eastern project site. While the western project site has a low likelihood of unknown archaeological resources, ground disturbance could uncover unknown resources. Therefore, mitigation measure **MM 3.4.2c** would be required. The revised project's impact would be **less than significant with mitigation.**

Mitigation Measures

MM 3.4.2a An archaeologist approved by the City and meeting the Secretary of the Interior's Standards for Archeology shall conduct a preconstruction meeting for all construction workers who will be disturbing the ground on the eastern project site. The preconstruction meeting shall cover archaeological and tribal cultural resources sensitivity, safety, and next steps if a resource is identified, and shall be conducted on the first day of construction.

MM 3.4.2b An archaeologist meeting the Secretary of the Interior's Standards for Archeology shall monitor all ground disturbance on the east project site. If an archaeological resource is identified, the archaeologist will assess the find and evaluate whether it is eligible for inclusion in the California Register of Historical Resources, if applicable.

MM 3.4.2c If deposits of prehistoric or historic period archaeological resources are encountered during project construction on the west project site, all work within 50 feet will be halted until an archaeologist can evaluate the findings and make recommendations. Prehistoric materials can include flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, or quartzite toolmaking debris; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash, and charcoal, shellfish remains, and cultural materials); and stone milling equipment (e.g., mortars, pestles, handstones). Historic period materials might include wood, stone, or concrete footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, metal, glass, ceramics, and other refuse. The City shall consider the mitigation recommendations and agree on implementation of the measure(s) that are feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, or other appropriate measures. After the measures have been put into place, construction activities may resume.

Adverse Effect on Paleontological Resources (Standard of Significance 3)

Impact 3.4.3 Project construction may adversely affect paleontological resources. Ground disturbance has the potential to impact unknown paleontological resources. The impact is **less than significant with mitigation**.

ECR/C Area Plan Impacts

According to the University of California Museum of Paleontology, South San Francisco contains a record for the genus Equus, which includes horses, donkeys, and zebras. Equus has numerous extinct species known only from fossils. However, the record indicates that the fossils are most likely found on San Bruno Mountain or near the San Francisco Bay, both of which are outside the planning area. Therefore, there would be no impact on paleontological resources (South San Francisco 2011b).

Subsequent Project Impacts

As identified in the ECR/C EIR, South San Francisco has a record of paleontological resources. While the project site is not located in an area known to have paleontological resources, ground disturbance has the potential to impact unknown paleontological resources. Therefore, mitigation measure **MM 3.4.3** would be required, which would reduce potential impacts of the revised project to **less than significant with mitigation.**

Mitigation Measure

MM 3.4.3 If deposits of paleontological resources are encountered during project construction on the west project site, all work within 50 feet will be halted until a qualified paleontologist can evaluate the findings and make recommendations. Work will not commence until significance of the find has been determined and the find has been evaluated.

Adverse Effect on Human Remains (Standard of Significance 4)

Impact 3.4.4 Project construction may adversely affect unknown human remains. The impact would be **less** than **significant**.

ECR/C Area Plan Impacts

Project construction would be in accordance with state laws pertaining to the discovery of human remains. Accordingly, if human remains of Native American origin are discovered, a project applicant and/or the City's Department of Economic and Community Development staff would be required to comply with state laws relating to the disposition of Native American burials, which are under the jurisdiction of the Native American Heritage Commission (PRC Section 5097). If any human remains are discovered or recognized in any location on a project site, there can be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the proper procedures have been undertaken. Compliance with these regulations and City General Plan policies reduces impacts to less than significant South San Francisco 2011b).

Subsequent Project Impacts

While no known human remains are located on the project site, the history of human habitation in the area could lead to the discovery of unknown human remains. The project would follow all state laws pertaining to the discovery of human remains. If the human remains are of Native American origin, the contractor would be required to comply with state laws relating to the disposition of Native American burials, which are under the jurisdiction of the Native American Heritage Commission (PRC Section 5097). If any human remains are discovered, excavation of the area and all nearby areas that could be reasonably suspected to contain adjacent human remains would immediately stop until the proper procedures have been undertaken. By complying with state law, the revised project would continue to have a **less than significant** impact on unknown human remains.

Mitigation Measures

None required.

3.4.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting associated with the project includes the project area and the entirety of South San Francisco. Most cultural resources impacts are generally site-specific and not cumulative in nature, as impacts generally vary by site characteristics and site history. However, continued growth in the region would contribute to potential conflicts with cultural and

paleontological resources. These resources include archaeological resources associated with Native American activities and historic resources associated with settlement, farming, and economic development.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts on Cultural Resources

Impact 3.4.5 The project, in addition to existing, approved, proposed, and reasonably foreseeable development in the region, could result in cumulative impacts on cultural resources. This impact would be **less than cumulatively considerable with mitigation**.

2011 ECR/C Area Plan Impacts

Impacts on cultural resources will be mitigated by existing regulations, and therefore cumulative impacts are not considered significant (ECR/C EIR, page 5-5).

Subsequent Project Impacts

Project implementation, in combination with other development in the city, could result in a cumulative loss of known and previously undiscovered cultural resources and paleontological resources in the region.

As discussed under Impacts 3.4.1, 3.4.2, and 3.4.3, no historical resources, archaeological resources, or paleontological resources were identified on the project site through either the records search or the cultural resources survey. However, project construction has the potential to disturb undiscovered cultural resources (i.e., prehistoric sites, historical resources, isolated artifacts and features), paleontological resources (i.e., fossils and fossil formations), and unrecorded human remains.

The project would comply with the requirements of California Health and Safety Code Section 7050.5(b) related to previously undiscovered cultural and paleontological resources and human remains and with California Public Resources Code Section 5097.98 protocol if Native American remains are discovered.

With implementation of mitigation measures **MM 3.4.2a, MM 3.4.2b, MM 3.4.2c,** and **MM 3.4.3**, the revised project's contribution to cumulative impacts on cultural resources in the region would be **less than cumulatively considerable with mitigation**.

Mitigation Measures

None required.

3.4.6 REFERENCES

Michael Baker International. 2017. *Confidential Cultural Resources Letter Report for the Community Civic Campus Project, City of South San Francisco, San Mateo County, California.*

South San Francisco, City of. 2011a. *El Camino Real/Chestnut Avenue Area Plan – General Plan Amendment.*

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3.5 – Geology and Soils

This section describes geologic hazards, such as ground shaking and liquefaction, and soil-related hazards, such as expansive soils, in the project area. The section evaluates the potential for the project site to affect or be affected by geologic and soil hazards and identifies feasible mitigation measures to lessen significant impacts, where necessary.

3.5.1 SEIR IMPACT SUMMARY

A summary of the project's impact conclusions related to geology and soils is provided below.

Impact Number	Impact Topic	Impact Significance
3.5.1	Fault rupture	Less than significant
3.5.2	Ground shaking and liquefaction	Less than significant with mitigation
3.5.3	Soil erosion	Less than significant
3.5.4	Located on expansive soil, or unstable soil that could result in landslide, lateral spreading, subsidence, liquefaction, or collapse	Less than significant with mitigation
3.5.5	Cumulative geologic and soils hazards	Less than cumulatively considerable

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.5.4.

3.5.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

The original site analyzed in the ECR/C EIR consisted of 98 acres of urban, developed land in South San Francisco. The planning area is located in the low-lying Colma Creek valley south of the south slope of Sign Hill. Surface sediments were found to consist of Holocene alluvium and bay sediments consisting primarily of silty sand, silt, or sandy silt, which are Quaternary in age. Surface soils were found to be non-expansive and well drained, with low permeability and low erosion potential. Several local pockets have high erosion potential and lower soil stability (South San Francisco 2011b).

While the Bay Area contains many faults, including the San Andreas, the San Gregorio, the Hayward, and the Calaveras, none of these are located in the planning area. The San Andreas fault is located 2 miles to the west, while the San Bruno fault bisects the project area. The planning area was not found to be within an Earthquake Safety Zone (or Alquist-Priolo Zone).

Other geologic hazards include liquefaction and landslides. Liquefaction is the transformation of saturated loose, fine-grained sediment into a fluid-like state due to earthquake-induced ground shaking. The liquefaction susceptibility in the planning area was identified as high, except in the Colma Creek channel where it is moderate. The risk of landslides was identified as minimal due to the area's classification as "flatland" per the Association of Bay Area Governments (ABAG) landslide susceptibility map (2017).

REGIONAL AND PROPOSED PROJECT SITE GEOLOGIC SETTING

Faults and Seismicity

According to the California Geological Survey (2010) Fault Activity Map of California, no active faults cross the project site. In addition, the project site is not located within the boundaries of any Alquist-Priolo Earthquake Fault Zones (DOC 1974). The San Bruno fault crosses the project site but is inactive (South San Francisco 2014). The San Andres fault is located approximately 2 miles to the west.

The region has historically experienced strong ground shaking from large earthquakes and will likely continue to do so. The project site is in an area known for generally high seismicity. Permanent ground displacement, liquefaction, landslides, lurching, and other types of ground movement can occur as a result of an earthquake.

Ground Shaking

Ground shaking is the most widespread effect of an earthquake. The sudden release of energy in an earthquake causes waves to travel through the earth. These waves not only shake structures to the breaking point but can trigger secondary effects such as landslides or other types of ground failure.

The strength of an earthquake is generally expressed in two ways: magnitude and intensity. Magnitude is a measure that depends on the seismic energy radiated by the earthquake as recorded on seismographs. The most commonly used magnitude scale today is the moment magnitude (Mw) scale. Moment magnitude is related to the physical size of fault rupture and the movement (displacement) across the fault, and it is therefore a more uniform measure of the strength of an earthquake.

The intensity at a specific location is a measure that depends on the effects of the earthquake on people or buildings and is used to express the severity of ground shaking. Earthquake intensities (ground shaking and damage) are estimated by the Modified Mercalli Intensity Scale, which characterizes the intensity of an earthquake's effects in a given locality and is based on observations of earthquake effects in specific places. On the Modified Mercalli Intensity Scale, values range from I to XII (see **Table 3.5-1**). While an earthquake has only one magnitude, it can have various intensities, which decrease with distance from the epicenter (CGS 2002).

TABLE 3.5-1
MODIFIED MERCALLI INTENSITY SCALE

Modified Mercalli Scale	Effects of Intensity
I	I. Not felt except by a very few under especially favorable conditions.
II–III	II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing. III. Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV–V	IV. Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably. V. Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.
VI–VII	VI. Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight. VII. Everybody runs outdoors. Damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.
VIII–IX	VIII. Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed. IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
X or higher	X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks. XI. Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly. XII. Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.

Source: CGS 2002

The project site can be expected to experience strong ground shaking from earthquakes on regional or local faults (South San Francisco 2014).

Liquefaction

Soil liquefaction is the loss of soil strength due to a significant seismic event. It occurs primarily where the groundwater level is shallow and where loose to medium dense, fine to medium grained sands and sandy silts occur within a depth of about 50 feet. Liquefaction potential decreases as grain size and clay and gravel contents increase. According to the liquefaction hazards map prepared by ABAG (2017), the eastern project site is in an area with high susceptibility to liquefaction. The project site is located in the city's lowland zone as designated in the Health and Safety Element of the South San Francisco General Plan (2014). The entire lowland zone is described as being susceptible to liquefaction.

SOILS

The project area is underlain by Holocene alluvium and bay sediments consisting primarily of silty sand, silt, or sandy silt (South San Francisco 2011b).

Erosion

Soil erosion is the process by which soils are worn away by precipitation and runoff or wind. Soil type, degree of surface disturbance, vegetation cover, the amount of wind and rain, and erosion control practices all impact the degree to which an area is eroded.

Expansive Soils

Expansive soils are soils that tend to shrink or swell depending on their moisture content. As expansive soils get wet, the clay minerals absorb water molecules and expand; conversely, as they dry, they shrink. When structures are located on expansive soils, foundations have the tendency to rise during the wet season and shrink during the dry season. This movement can create new stresses on various sections of the foundation and connected utilities and can lead to structural failure and damage to infrastructure. Cracked foundations, floors, and basement walls are typical types of damage created by expansive soils. Undisturbed native soils in the project area may have a slight to moderate shrink-swell potential, which could result in development constraints.

The project site is located in the city's lowland zone as designated in the General Plan Health and Safety Element (South San Francisco 2014). This area is known to have a high shrink-swell potential and soil settlement.

3.5.3 REGULATORY FRAMEWORK

FEDERAL

Uniform Building Code

The purpose of the Uniform Building Code (UBC) is to establish minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures. UBC standards address foundation design, shear wall strength, and other structural-related conditions.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The act's main purpose is to prevent the construction of buildings used for human occupancy on the surface of active faults. The act requires the State Geologist to establish regulatory zones known as earthquake fault zones around the surface traces of active faults and to issue appropriate maps.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 directs the Department of Conservation, California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the act is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards. The CGS has published regulatory maps identifying areas that require special evaluation.

California Building Code

The State of California establishes minimum standards for building design through the California Code of Regulations, Title 24, also known as the California Building Standard Code or the California Building Code (CBC). The CBC is based on the Uniform Building Code but modifies UBC regulations for specific conditions found in California and includes a large number of more detailed and/or more restrictive regulations.

For example, the CBC includes common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil–related impacts. The CBC requires structures to be built to withstand ground shaking in areas of high earthquake hazards and the placement of strong motion instruments in larger buildings to monitor and record the response of the structure and the site of seismic activity. Compliance with California Building Code regulations ensures the adequate design and construction of building foundations to resist soil movement. In addition, the CBC contains drainage requirements in order to control surface drainage and to reduce seasonal fluctuations in soil moisture content.

LOCAL

City of South San Francisco General Plan

General Plan Chapter 8, the Health and Safety Element, contains the following guiding policy related to geologic hazards:

8.1-G-I Minimize the risk to life and property from seismic activity and geologic hazards in South San Francisco.

El Camino Real/Chestnut Avenue Area Plan

No ECR/C Area plan policies pertain to geology and soils impacts.

3.5.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

This analysis evaluates the proposed project's impacts on geology and soils based on the standards identified in the California Environmental Quality Act (CEQA) Guidelines Appendix G. A geology and soils impact is considered significant if the project would:

1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence or other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.

ii) Strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction.

iv) Landslides.

2) Result in substantial soil erosion or the loss of topsoil.

3) 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.

4) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994) and in ASTM D4829-11, creating substantial risk to life or property.

5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Changes in the CEQA Guidelines

There have been no changes in the CEQA Guidelines since 2011 that are relevant to the analysis of geology and soils impacts.

METHODOLOGY

The following qualitative impact analysis is based on a review of findings in the ECR/C EIR and information available from ABAG, the USGS, and the California Department of Conservation.

Impacts Not Evaluated in Detail (Impacts 1.iv and 5)

The ECR/C EIR did not evaluate project impacts as they relate to the exposure of people or structures to landslide (Standard of Significance 1[iv]) or impacts from soils incapable of adequately supporting the use of septic tanks (Standard of Significance 5). ABAG designated the planning area as "flatland" with no threat of landslide. The project site is not located in an area that is susceptible to rainfall or earthquake-induced landslides (ABAG 2017). The planning area is also served by the City's municipal sewer system, and all future projects would be connected to this system. The project would have no impact with respect to landslides or the use of septic tanks.

PROJECT IMPACTS AND MITIGATION MEASURES

Fault Rupture (Standard of Significance 1[i])

Impact 3.5.1 Project implementation would not expose people or structures to the rupture of a known earthquake fault. The impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

The ECR/C EIR found that the project would have a less than significant impact due to fault rupture because of the lack of active faults in the planning area. The ECR/C EIR also indicated that any projects in the planning area would implement the California Building Code and Chapters 19.40 and 20.170 of the South San Francisco Municipal Code. Chapter 19.40 requires a preliminary soils report as part of the City's standard subdivision procedures. Chapter 20.170 requires all areas identified as seismic and geologic hazard areas in the City's General Plan to prepare a soils and geologic report prior to construction.

Subsequent Project Impacts

As described in subsection 3.5.2, Existing Setting, the project site is in a region known for its seismic activity and would experience strong ground shaking from earthquakes on regional or local faults. However, as described in the ECR/C EIR, the project would be required to comply with the California Building Code. Compliance with the building standards in the California Building Code and contained in Title 24 of the California Code of Regulations would protect against building collapse and major injury. Therefore, the revised project's impact would continue to be **less than significant**.

Mitigation Measures

None required.

Ground Shaking and Liquefaction (Standards of Significance 1[ii] and 1[iii])

Impact 3.5.2 Project implementation may expose people or structures to seismic hazards such as ground shaking or liquefaction. The impact would be **less than significant with mitigation.**

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, structures and infrastructure in the planning area would likely experience at least one major earthquake during their functional lifetime. Building codes and construction standards established by the California Building Code and contained in Title 24 of the California Code of Regulations would protect against building collapse and major injury.

Additionally, the ECR/C EIR found that the project is in an area with a high liquefaction potential. All projects in the planning area would comply with the California Building Code as well as Chapters 15.08 and 19.40 of the City's Municipal Code. Chapter 15.08 adopts and amends the California Building Code. Chapter 19.40 requires a preliminary soils report using the City's standard subdivision procedure (South San Francisco 2011b). As such, compliance with the existing building codes and construction standards would reduce seismic-related ground shaking and liquefaction to less than significant levels.

Subsequent Project Impacts

As described in subsection 3.5.2, Existing Setting, the project site is in a region that is susceptible to seismic activity and may experience an earthquake in the project's lifetime. The site is also known to be in an area susceptible to liquefaction. The project would be required to comply with the California Building Code, which contains policies to reduce impacts from earthquakes and liquefaction. Because the project site is located in an area with high seismic activity and

susceptible to liquefaction, the project would have a potentially significant impact. With implementation of mitigation measure **MM 3.5.2**, which requires that a site-specific geotechnical report be prepared prior to construction, project impacts would be less than significant. The revised project's impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

MM 3.5.2 Prior to construction, the City shall prepare a site-specific geotechnical report for the project site. The report shall contain information regarding liquefaction, landslides, ground shaking, surface faulting, and other geologic hazards. If the report indicates the presence of soil conditions or geologic hazards which, if not corrected, could lead to structural defects, the report shall recommend corrective action that is likely to prevent structural damage to each structure proposed to be constructed. These soil conditions shall include liquefaction potential of the soil and the chance of subsidence and/or soil expansion. The report shall be submitted for approval by the City Engineer, and all recommended corrective actions shall be required to be present in the final project plans.

Soil Erosion (Standard of Significance 2)

Impact 3.5.3 Project implementation may result in soil erosion due to construction and operation activities. Therefore, the impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, plan implementation would result in soil erosion due to construction and operation activities. The ECR/C EIR outlines policies required in the South San Francisco Municipal Code for subdivision applications and compliance with National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements. The ECR/C EIR determined that mandatory compliance with the City's Municipal Code and NPDES General Construction Permit requirements would reduce impacts due to soil erosion to less than significant levels (South San Francisco 2011b).

Subsequent Project Impacts

The project would disturb soil during project construction, and site soils would be exposed to the erosive effects of wind and water. Additionally, landscaping activities would also result in soil exposure and soil erosion.

Any development involving clearing, grading, or excavation that causes soil disturbance of 1 or more acres would be subject to the State's General Construction Permit (CGP) and would be required to prepare and implement an approved storm water pollution prevention plan (SWPPP). SWPPPs provide a schedule for the implementation and maintenance of erosion control measures and a description of erosion control practices, including appropriate design details and a time schedule. Because the project would involve clearing, grading, and evacuation activities over an area of approximately 8.8 acres, the project would be required to prepare a SWPPP.

The project would comply with Municipal Code Chapter 15.08, which requires the project to obtain a grading permit from the City Engineer prior to excavation, grading, filling, clearing, or erosion control measures.

Compliance with adopted City Municipal Code sections and SWPPP implementation would ensure that the revised project's soil erosion and related impacts would continue to be **less than significant**.

Mitigation Measures

None required.

Located on Expansive Soil, or Unstable Soil That Could Result in Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse (Standards of Significance 3 and 4)

Impact 3.5.4 The project would be located on unstable soils that would be subject to subsidence, liquefaction, or collapse and could subject foundations and paved areas to potential distress. This impact would be **less than significant with mitigation.**

2011 ECR/C Area Plan Impacts

As described in the ECR/C EIR, due to the variability of soils in the planning area, it is possible that future development could be subject to soil expansion and settlement. The ECR/C EIR outlines policies required in the South San Francisco Municipal Code for subdivision application, which require the preparation of a site-specific soil report as a way of reducing hazards related to expansive or unstable soils. The ECR/C EIR concluded that compliance with these codes would reduce impacts to a less than significant level (South San Francisco 2011b).

Subsequent Project Impacts

As described in subsection 3.5.2, Existing Setting, the project site is not in an area where landslides have historically occurred. The project site is relatively flat and is not in an area that has slopes which would be susceptible to landslides. Therefore, the project would have a less than significant impact due to landslides.

Additionally, the project site is located in the city's lowland zone. This area is known to have a high shrink-swell potential and the potential for soil settlement. The project site is also in an area with the potential for unstable soils. Construction on either would result in a potentially significant impact. As such, the project would implement mitigation measure **MM 3.5.2**, which requires the preparation of a geotechnical report and requires that any recommended building techniques be implemented in the project's construction plans. This mitigation measure would reduce impacts to a less than significant level. Therefore, the revised project would have a **less than significant impact with mitigation.**

Mitigation Measures

Implement mitigation measure **MM 3.5.2.**

3.5.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

Site-specific topography, soil conditions, and surrounding development determine geological and soil-related impacts, which generally are not considered cumulative in nature. However, erosion and sediment deposition can be cumulative, depending on the type and amount of development proposed in a given geographical area. The cumulative setting for soil erosion consists of existing, planned, proposed, and reasonably foreseeable land use conditions in the project vicinity.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Geologic and Soils Hazards

Impact 3.5.5 The project area is located in a seismically active region that puts the area at risk for seismically induced ground shaking, liquefaction, and landslides. The project would not contribute to cumulative soil erosion impacts. The project's contribution to this impact would be **less than cumulatively considerable**.

2011 ECR/C Area Plan Impacts

Impacts on geologic resources will be mitigated by existing regulations, and therefore cumulative impacts are not considered significant (ECR/C EIR, page 5-5).

Subsequent Project Impacts

Geologic impacts tend to be site-specific rather than cumulative in nature. For example, expansive soil may damage or impact the project, but would not cause any adjacent parcels to become more susceptible to risks related to expansive soil. Similarly, hazards associated with development on unstable soils would also be site-specific. Because the project area is built out and graded, potential erosion effects would be limited to construction periods only and would not be cumulatively considerable.

The project would be required to prepare a SWPPP and implement erosion control measures though the City's grading permit. This would reduce cumulative impacts from soil erosion to less than significant levels. Therefore, the revised project's contribution to this impact would continue to be **less than cumulatively considerable**.

Mitigation Measures

None required.

3.5.6 REFERENCES

ABAG (Association of Bay Area Governments). 2017. San Francisco Bay Region Hazards Map. http://gis.abag.ca.gov/website/Hazards/?hlyr=existingLndsld.

CGS (California Geological Survey). 2002. How Earthquakes and Their Effects Are Measured. Revised April 2002. Accessed September 2016. http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/note_32/documents/note_32.pdf.

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3.6 – GREENHOUSE GAS EMISSIONS

This section discusses the project's effect on greenhouse gas (GHG) emissions and the associated effects of climate change. The reader is referred to Section 3.2, Air Quality, for a discussion of project impacts associated with air quality.

3.6.1 SEIR IMPACT SUMMARY

A summary of the Community Civic Campus Project impact conclusions related to greenhouse gases is provided below.

Impact Number	Impact Topic	Impact Significance
3.6.1	Generation of greenhouse gas emissions	Less than significant
3.6.2	Compliance with the applicable GHG reduction plan	Less than cumulatively considerable

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.6.4.

3.6.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

The area originally analyzed in the 2011 ECR/C EIR consisted of approximately 98 acres of primarily developed land located in South San Francisco. The 2011 ECR/C EIR described the project site as primarily developed with commercial and medical uses, located in an urbanized part of South San Francisco.

The ECR/C EIR analyzed energy use and GHG emissions in South San Francisco. Electricity and natural gas are supplied by the Pacific Gas and Electric Company (PG&E). PG&E obtains energy from power plants and natural gas fields in Northern California and delivers electricity through high voltage transmission lines. Energy demand is slowly growing with population growth and an increase in commercial activity. Transportation energy is dominated by automobiles and commercial vehicles, with additional energy demand from ferries, buses, light rail, BART, and commuter rail.

GHG emissions in South San Francisco were obtained from the 2005 Community-Wide Greenhouse Gas Emissions Inventory prepared for the City. The transportation sector and the commercial sector are the two largest contributors to GHG emissions. Together, these two sectors emitted approximately 70 percent of all emissions in the city, each contributing approximately 35 percent. Other major contributors are the waste sector (approximately 13.2 percent) and the residential sector (approximately 12.7 percent).

GLOBAL CLIMATE CHANGE

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into

space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014).

Table 3.6.1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

TABLE 3.6-1
GREENHOUSE GASES

Greenhouse Gas	Description
Carbon Dioxide (CO_2)	Carbon dioxide is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.[1]
Methane (CH_4)	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH_4 to the atmosphere. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH_4 is about12 years.[2]
Nitrous Oxide (N_2O)	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.[3]

Sources: [1] EPA 2016a, [2] EPA 2016b, [3] EPA 2016c

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 28 times more heat per molecule than CO_2, and N_2O absorbs 265 times more heat per molecule than CO_2 (IPCC 2014).[1] Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Table 3.6-2 shows the global warming potentials for different GHGs for a 100-year time horizon.

TABLE 3.6-2
GLOBAL WARMING POTENTIAL FOR GREENHOUSE GASES

Greenhouse Gas	Global Warming Potential
Carbon Dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous Oxide (N_2O)	265

Source: IPCC 2014

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), greenhouse gases have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remain stored in the atmosphere (IPCC 2013).

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice it to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of the California Environmental Quality Act (CEQA), GHG impacts to global climate change are inherently cumulative.

California is a significant emitter of CO_2e in the world and produced 459 million gross metric tons of CO_2e in 2012. Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2010, accounting for 36 percent of total GHG emissions in the state. This category was followed by the electric power sector (including both in-state and out-of-state sources) (21 percent) and the industrial sector (19 percent) (CARB 2014).

[1] Note that these global warming potentials are from the IPCC's 5th Assessment Report published in 2014. The GHG Inventory and Climate Action Plan (discussed later in this document) used IPCC's 2nd Assessment Report global warming potentials due to international GHG inventory conventions. In the 2nd Assessment Report, CH_4 traps 21 times more heat than CO_2 and N_2O traps 310 times more heat. Increasingly, GHG inventories are converting to using more updated IPCC data on global warming potentials.

GREENHOUSE GAS EMISSION SOURCES

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors. California is a significant emitter of CO_2e in the world and produced 459 million gross metric tons of CO_2e in 2013. In the state, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction (CARB 2015).

Emissions of CO_2 are by-products of fossil fuel combustion. CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. Carbon dioxide sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water), respectively, two of the most common processes for removing carbon dioxide from the atmosphere.

EFFECTS OF GLOBAL CLIMATE CHANGE

California can draw on substantial scientific research conducted by experts at various universities and research institutions. With more than a decade of concerted research, scientists have established that the early signs of climate change are already evident in the state—as shown, for example, in increased average temperatures, changes in temperature extremes, reduced snowpack in the Sierra Nevada, sea level rise, and ecological shifts.

Many of these changes are accelerating locally, across the country, and around the globe. As a result of emissions already released into the atmosphere, California will face intensifying climate change in coming decades (CNRA 2009). Generally, research indicates that California should expect overall hotter and drier conditions, with a continued reduction in winter snow (with concurrent increases in winter rains), as well as increased average temperatures and accelerating sea-level rise. In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing (CNRA 2009).

Climate change temperature projections identified in the CNRA 2009 California Climate Adaptation Strategy suggest the following:

- Average temperature increase is expected to be more pronounced in the summer than in the winter season.
- Inland areas are likely to experience more pronounced warming than coastal regions.
- Heat waves are expected to increase in frequency, with individual heat waves also showing a tendency toward becoming longer and extending over a larger area, thus more likely to encompass multiple population centers in California at the same time.
- Because GHGs remain in the atmosphere for decades, temperature changes over the next 30 to 40 years are already largely determined by past emissions. By 2050, temperatures are projected to increase by an additional 1.8 to 5.4°F (an increase one to three times as large as that which occurred over the entire twentieth century).
- By 2100, the models project temperature increases between 3.6 and 9°F.

The impacts of climate change in California have the potential to include but are not limited to the issue areas summarized in **Table 3.6-3**.

Exposure to Environmental Impacts from Climate Change

Table 3.6-3 provides an overview of various environmental impacts from climate change that could occur throughout the state. The project area lies just outside of the areas anticipated to be impacted by sea level rise. Water supply is addressed in Section 3.11, Utilities and Service Systems, of this Draft SEIR, which notes water conservation measures to reduce water demand and regional efforts to improve water supply reliability. No significant environmental impacts from climate change are expected to occur in the Community Civic Campus Project area.

TABLE 3.6-3
POTENTIAL STATEWIDE IMPACTS FROM CLIMATE CHANGE

Potential Statewide Impact	Description
Public Health	Climate change is expected to lead to an increase in ambient (i.e., outdoor) average air temperature, with greater increases expected in summer. Larger temperature increases are anticipated in inland communities as compared to the California coast. The potential health impacts from sustained and significantly higher than average temperatures include heat stroke, heat exhaustion, and the exacerbation of existing medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Numerous studies have indicated that there are generally more deaths during periods of sustained higher temperatures. The elderly, infants, and socially isolated people with pre-existing illnesses who lack access to air conditioning or cooling spaces are among the most at risk during heat waves (CNRA 2009).
Floods and Droughts	The impacts of flooding may include population displacement, severe psychosocial stress with resulting mental health impacts, exacerbation of pre-existing chronic conditions, and infectious disease. Additionally, impacts can range from a loss of personal belongings, and the emotional ramifications from such loss, to direct injury and/or mortality. Drinking water contamination outbreaks in the United States are associated with extreme precipitation events. Runoff from rainfall is also associated with coastal contamination that can lead to contamination of shellfish and contribute to food-borne illness. Floodwaters may contain household, industrial, and agricultural chemicals, as well as sewage and animal waste. Flooding and heavy rainfall events can wash pathogens and chemicals from contaminated soils, farms, and streets into drinking water supplies. Flooding may also overload storm and wastewater systems, or flood septic systems, also leading to possible contamination of drinking water systems. Drought impacts develop more slowly over time. Risks to public health that Californians may face from drought include impacts on water supply and quality, food production (both agricultural and commercial fisheries), and risks of waterborne illness. As surface water supplies are reduced as a result of drought conditions, the amount of groundwater pumping is expected to increase to make up for the water shortfall. The increase in groundwater pumping has the potential to lower the water tables and cause land subsidence. Communities that utilize well water will be adversely affected by drops in water tables or through changes in water quality. Groundwater supplies have higher levels of total dissolved solids compared to surface waters. This introduces a set of effects for consumers, such as repair and maintenance costs associated with mineral deposits in water heaters and other plumbing fixtures, and on public water system infrastructure designed for lower salinity surface water supplies. Drought may also lead to increased concentration of contaminants in drinking water supplies (CNRA 2009).

Potential Statewide Impact	Description
Water Resources	The state's water supply system already faces challenges to provide water for California's growing population. Climate change is expected to exacerbate these challenges through increased temperatures and possible changes in precipitation patterns. The trends of the last century, especially increases in hydrologic variability, will likely intensify in this century. The state can expect to experience more frequent and larger floods and deeper droughts. Rising sea level will threaten the Delta water conveyance system and increase salinity in near-coastal groundwater supplies (CNRA 2009).
Forests and Landscapes	Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, wildfire occurrence statewide could increase from 57 to 169 percent by 2085. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state (CNRA 2009).
Sea Level Rise	The San Francisco Bay Conservation and Development Commission (BCDC) issued a report on sea level rise that states that sea level along the West Coast rises approximately 7.9 inches per century, or approximately 0.08 inches per year. However, the rate of sea level rise is increasing. During the period of 1993–2003, the rate was approximately 0.12 inches per year, which could demonstrate the result of human-induced warming on sea level. The BCDC uses the same sea level rise estimates that are used by California Climate Action Team–funded assessments. These estimates anticipate the sea level in the Bay Area will rise 16 inches by mid-century and 55 inches by the end of the century. This data was used to make maps of projected flood areas but does not take into consideration existing shoreline protections; if an area is below sea level, it is shown as vulnerable on their maps despite any existing projections. By mid-century, approximately 180,000 acres of the Bay Area could be flooded, and 213,000 acres could be flooded by the end of the century. A large amount of development along the shoreline is vulnerable to flooding and erosion. Due to Bay Area topography, 100 percent of the development located in 100-year floodplain areas will likely flood by the year 2050. Also, different parts of the Bay Area are more vulnerable to flooding and erosion than others. In the vulnerable areas are several large commercial and industrial developments, including 93 percent of both the Oakland and the San Francisco airports that may be inundated by 2100. Half of the vulnerable development is residential, and approximately 270,000 people would be at risk of flooding and problems with erosion. Approximately 4,300 acres of waterfront parks are expected to flood by 2100. The Bay Area currently has approximately 300 miles of public access to and along the San Francisco Bay shoreline. Eighty-seven (87) percent of that access is located in areas vulnerable to flooding and erosion by 2100. It may be very hard to relocate or re-create access opportunities in areas further inland. Jetties and seawalls may have to be raised and strengthened to protect harbors that are used for shipping, recreation, and tourism. As discussed above, by the year 2050, 100 percent of 100-year floodplain areas are expected to be flooded, and by the year 2100 an estimated 213,000 acres of Bay Area land, much of which is in the central Bay Area, could be impacted. South San Francisco is located in the southern Bay Area. Parts of South San Francisco to the east of US Route 101 could be exposed to sea level rise by 2050. A much larger region to the east of US 101 and some areas to the west extending almost to South Spruce Street may be exposed to sea level rise by 2100. Rising sea levels may flood Colma Creek, with rising waters expected along Canal Street and to the west. Rising sea levels are not expected to impact the project area. Much of the developed Bay Area shoreline will require enhanced shoreline protection, which will be developed regionally to maximize safety and minimize impacts on sensitive bay resources, including public access, visual resources, and soil stability. Structural shoreline protections common to the Bay Area include seawalls, riprap revetments, and levees. These protections are reliable but expensive to build and maintain, and often cause significant impacts to resources. Incorporating ecosystem elements with engineering elements would provide balanced and long-term shoreline protection (BCDC 2011).

Source: Compilation and summary from CNRA 2009 and BCDC 2011

3.6.3 REGULATORY FRAMEWORK

STATE

The State of California has adopted various administrative initiatives and legislation relating to climate change, much of which set aggressive goals for GHG emissions reductions statewide. Although lead agencies must evaluate climate change and GHG emissions of projects subject to CEQA, the CEQA Guidelines do not require or suggest specific methodologies for performing an assessment or specific thresholds of significance and do not specify GHG reduction mitigation measures. Instead, the guidelines allow lead agencies to choose methodologies and make significance determinations based on substantial evidence, as discussed in further detail below. No state agency has promulgated binding regulations for analyzing GHG emissions, determining their significance, or mitigating significant effects in CEQA documents. Thus, lead agencies exercise their discretion in determining how to analyze GHGs.

California Global Warming Solutions Act (Assembly Bill 32)

The primary act that has driven GHG regulation and analysis in California is the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599), which instructs the California Air Resources Board (CARB) to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. The act directed CARB to set a greenhouse gas emissions limit based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. The heart of the bill is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020.

AB 32 Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business as usual"). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates early actions by CARB and the state's Climate Action Team and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the adopted role of a cap-and-trade program.[2] Additional development of these measures and adoption of the appropriate regulations occurred through the end of year 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.

[2] The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of state agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the state's Climate Adaptation Strategy.

- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions.

- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.

- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, heavy-duty truck measures, and the Low Carbon Fuel Standard.

- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state of California's long-term commitment to AB 32 implementation. (CARB 2008)

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated in light of current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO_2e to 545 million metric tons of CO_2e. The reduction in projected 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory forecast that incorporated state-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The Scoping Plan update also looks beyond 2020 toward the 2050 goal established in Executive Order S-3-05, though not yet adopted as state law, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal." The Scoping Plan update does not establish or propose any specific post-2020 goals, but it identifies such goals adopted by other governments or recommended by various scientific and policy organizations. Executive Order B-30-15 (signed April 29, 2015) endorses the effort to set interim GHG reduction targets for year 2030 (40 percent below 1990 levels).

Amendments to California Global Warming Solutions Act of 2006: Emission Limit (Senate Bill 32)

Signed into law in September 2016, Senate Bill (SB) 32 codifies the 2030 target in Executive Order B-30-15. The bill authorizes the state board to adopt an interim GHG emissions level target to be achieved by 2030. SB 32 states that the intent is for the legislature and appropriate agencies to adopt complementary policies which ensure that the long-term emissions reductions advance specified criteria. CARB is tasked with updating the Scoping Plan to provide guidance for compliance with SB 32. The next updated Scoping Plan is expected to be adopted in 2017.

Table 3.6-4 provides a brief overview of other California legislation relating to climate change that may affect emissions associated with the proposed project.

TABLE 3.6-4
CALIFORNIA STATE CLIMATE CHANGE LEGISLATION

Legislation	Description
Assembly Bill 1493 and Advanced Clean Cars Program	Assembly Bill 1493 ("the Pavley Standard") (Health and Safety Code Sections 42823 and 43018.5) aims to reduce GHG emissions from noncommercial passenger vehicles and light-duty trucks of model years 2009–2016. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions.
Low Carbon Fuel Standard	Executive Order S-01-07 (2007) requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California. The regulation took effect in 2010 and is codified at Title 17, California Code of Regulations, Sections 95480–95490. The Low Carbon Fuel Standard (LCFS) will reduce GHG emissions by reducing the carbon intensity of transportation fuels used in California by at least 10 percent by 2020.
Renewables Portfolio Standard (Senate Bill X1-2 & Senate Bill 350)	California's Renewables Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. The 33 percent standard is consistent with the RPS goal established in the Scoping Plan. The passage of Senate Bill 350 in 2015 updates the RPS to require the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. The bill will make other revisions to the RPS program and to certain other requirements on public utilities and publicly owned electric utilities.
Senate Bill 375*	SB 375 took effect in 2008 and provides a new planning process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established in AB 32. SB 375 requires metropolitan planning organizations to incorporate a sustainable communities strategy in their regional transportation plans that will achieve GHG emissions reduction targets by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.
California Building Energy Efficiency Standards	In general, the California Building Energy Efficiency Standards require the design of building shells and building components to conserve energy. The California Energy Commission adopted changes to the 2013 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code) and associated administrative regulations in Part 1. The amended standards took effect in the summer of 2014. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The standards offer builders better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. Energy-efficient buildings require less electricity, and increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.
California Green Building Standards	The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2017.

** Senate Bill 375 is codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01, as well as at Public Resources Code Sections 21061.3 and 21159.28 and Chapter 4.2.*

REGIONAL

Bay Area Air Quality Management District

The Bay Area Air Quality Management District's (BAAQMD) (2011) CEQA Air Quality Guidelines were developed to assist lead agencies in evaluating air quality impacts for projects and plans in the San Francisco Bay Area Air Basin. The guidelines were updated in 2010 to include guidance on assessing GHG and climate change impacts as required under CEQA Section 15183.5(b) and to establish thresholds of significance for impacts related to GHG emissions. These thresholds can be used to assess plan-level and project-level impacts.

Association of Bay Area Governments Plan Bay Area 2013–2040

The Association of Bay Area Governments' (ABAG) (2013) Plan Bay Area is the Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) for the San Francisco Bay Area. ABAG was tasked by CARB to achieve a 7 percent per capita reduction in mobile-source GHG emissions compared to 2005 vehicle emissions by 2020 and a 15 percent per capita reduction by 2035. Plan Bay Area 2013–2040 establishes an overall mechanism to achieve these GHG targets for the project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32. CARB (2014) confirmed that the project region will achieve its GHG reduction targets by implementing Plan Bay Area.

LOCAL

City of South San Francisco Climate Action Plan

The South San Francisco Climate Action Plan (CAP) is a strategic planning document that identifies sources of GHG emissions from within the city's boundary and reduces emissions through energy use, transportation, land use, water use, and solid waste strategies (referred to as reduction measures in the CAP). The CAP includes goals, policies, and programs to reduce GHG emissions, adapt to climate change, and support the goals of AB 32 and SB 375. Provisions of the City's CAP include the following:

- Continue to enforce the City's Transportation Demand Management (TDM) program to require employers to demonstrate achieved mode share and to continually adjust their programs to meet the requisite goals. (Action 1.2.3)

- Implement Priority Development Areas and Station Area Plans, including the El Camino Real Master Plan, including the General Plan and Zoning Code amendments adopted by the City in 2010 and 2011, respectively. (Action 1.3.1)

- Require new large-scale nonresidential developments to provide a conduit for future electric vehicle charging installations, and encourage the installation of conduits or electric vehicle charging stations for all new development. (Action 2.1.5)

- Model the use of electric and energy-efficient equipment in City operations. (Action 2.2.4)

- Continue to require tree planting in new development in accordance with Chapter 13.30 of the Zoning Code, and encourage tree placement to maximize building shading. (Action 3.4.2)

- Continue to enforce the existing construction and demolition ordinance, required 100% of inert waste and 65% of non-inert waste to be recycled from all eligible projects. (Action 5.1.2)

- Continue to support implementation of the Urban Water Management Plan to reduce potable water by at least 20%. (Action 6.1.1)

  – Revitalize implementation and enforcement of the Water 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.

  – Reducing impervious surfaces. (Action 6.1.2)

- Work with water providers to support the installation of smart water meters on all accounts in the city. (Action 6.1.3)

- Where possible, remove turf from municipal facilities. (Action 7.2.2)

- Conduct training of staff for the use and installation of water-saving irrigation technology and auditing. (Action 7.2.4)

City of South San Francisco General Plan

The General Plan Land Use, Planning Sub-Areas, Transportation, and Open Space and Conservation Elements contain the following policies that are relevant to the analysis of greenhouse gas impacts:

Chapter 2: Land Use

2-I-4 Require all new developments seeking an FAR bonus to achieve a progressively higher alternative mode usage. The requirements of the TDM program are detailed in the Zoning Ordinance.

2-I-6 Undertake a comprehensive review of the parking standards and establish criteria for reduced parking for mixed-use developments, for development that meets specified TDM criteria, and Medium- and High-Density Residential development.

2-I-13 As part of development review in environmentally sensitive areas, require specific environmental studies and/or review as stipulated in Section 7.1: Habitat and Biological Resources Conservation.

2-I-15 As part of the General Plan Annual Report, monitor the rate and density/intensity of residential, commercial, and industrial development, and site availability for future development.

Chapter 3: Planning Sub-Areas

3.4-1-1 Work with Caltrans and other agencies to implement the El Camino Real Landscape Conceptual Master Plan for the entire stretch of El Camino Real through South San Francisco.

3.4-1-2 Prepare and implement an El Camino Real overlay district in the City's Zoning Ordinance that provides development standards that further El Camino's development as a mixed-use use boulevard, accommodating the need for both auto-oriented uses as well as designated pedestrian-oriented centers.

3.4-1-6 Prepare a focused plan for public improvements to the BART station that includes:

- Streets and other infrastructure improvements; and
- Sidewalk design and construction within a 1/2-mile of the BART station to integrate the station with the surroundings.

3.4-1-8 Require any new development/redevelopment within 1/2-mile of the BART station at a density of no less than 30 units per net acre for residential uses, or a FAR of 1.5 for non-residential uses, or an appropriate combination of the two. Maintain higher intensities where specified otherwise in the General Plan.

3.4-1-13 Develop the El Camino Real/Chestnut Area in accordance with the vision established for the area by the El Camino Real/Chestnut Avenue Area Plan.

3.4-1-14 Maintain the El Camino Real/Chestnut Avenue Area Plan as the detailed implementing guide for the area. The El Camino Real/Chestnut Avenue Area Plan provides principles and policies that lay the framework for development within the area. The Area Plan provides an overall vision for the area in terms of land use, urban design and circulation, and emphasizes the creation of a vibrant and viable activity center in South San Francisco. The Area Plan also includes Design Standards and Guidelines to guide design review of projects.

Chapter 4: Transportation

4.2-I-11 Implement, to the extent feasible, circulation system improvements.

4.3-I-1 Prepare and adopt a Bikeways Master Plan that includes goals and objectives, a list or map of improvements, a signage program, detailed standards, and an implementation program. Once adopted, the Bicycle Master Plan shall be the guiding policy document regarding bicycling matters that are within the scope of the adopted Bicycle Master Plan.

4.3-I-5 Prepare, adopt, and maintain a PMP as a long-term vision for supporting and improving pedestrian access in South San Francisco, including goals, policies, and strategic near-term implementation measures that encourage pedestrian activity and prioritizes pedestrian improvements for funding.

4.3-I-9 Promote pedestrian safety and access through education, collaboration with C/CAG, and regular public awareness efforts that advocate walking.

4.3-I-12 Use the El Camino Real/Chestnut Avenue Area Plan to identify, schedule, and implement pedestrian improvements for the El Camino Real/Chestnut Area.

4.3-I-15 Adopt a TDM program or ordinance which includes, but is not limited to, the following components:

- Methodology to determine eligibility for land use intensity bonuses for TDM programs identified in the Land Use Element.
- Procedures to ensure continued maintenance of measures that result in intensity bonuses.
- Requirements for off site improvements (such as bus shelters and pedestrian connections) that are directly necessary as a result of development.
- Establishment of baseline TDM requirements for all new projects generating more than 100 peak period trips.
- Establishment of additional requirements for all new projects seeking a FAR bonus.
- An ongoing monitoring and enforcement program to ensure TDM measures are actually implemented.
- Reduce parking requirements for new projects implementing a TDM Program in proximity to fixed guide way transit or those with demonstrated measures that would reduce trip generation.

4.3-I-16 Favor Transportation Systems Management programs that limit vehicle use over those that extend the commute hour.

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.

4.3-I-19 Amend the Zoning Ordinance to reduce minimum parking requirements for projects proximate to transit stations and for projects implementing a TDM program.

4.3-I-20 Investigate opportunities for shared parking facilities whenever possible to reduce the number of new parking stalls required.

4.4-I-1 Develop a Downtown multi-modal transit center southeast of the Grand Avenue/ Airport Boulevard intersection, with a relocated Caltrain Station as its hub.

4.4-I-3 Explore the feasibility a shuttle system between the Downtown/multimodal station and South San Francisco and San Bruno stations. Explore mechanisms to provide the shuttle service free to riders.

Chapter 7: Open Space and Conservation

7.3-I-2 Use the City's development review process and the California Environmental Quality Act (CEQA) regulations to evaluate and mitigate the local and cumulative effects of new development on air quality and GHG emissions.

7.3-I-5 In cooperation with local conservation groups, institute an active urban forest management program that consists of planting new trees and maintaining existing ones.

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.

7.3-I-7 Adopt and implement the City of South San Francisco's CAP, which will identify a GHG emissions reduction target and measures and actions to achieve the reduction target.

7.3-I-8 Evaluate and regularly report to City Council, or its designee, on the implementation status of the CAP and update the CAP as necessary should the City find that adopted strategies are not achieving anticipated reductions, or to otherwise incorporate new opportunities.

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.

7.3-I-10 Facilitate energy efficiency in building regulations and streamlined review processes, providing flexibility to achieve specified energy performance levels and requiring energy efficiency measures as appropriate.

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.

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.

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.

7.3-I-14 Ensure that design guidelines and standards support operation of alternative fuel facilities, vehicles, and equipment.

7.3-I-15 Demonstrate effective operations in municipal facilities that reduce GHG emissions.

3.6.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the CEQA Guidelines Appendix G thresholds of significance. A project is considered to have significant impacts if implementation of the project would:

1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The assessment of GHG emissions below is based on guidance from the Bay Area Air Quality Management District. On June 2, 2010, the BAAQMD adopted guidance on assessing greenhouse gases and climate change impacts as required under CEQA Section 15183.5(b), as well as new CEQA significance thresholds including the thresholds for GHGs of 1,100 metric tons of CO_2e per year; or 4.6 metric tons of CO_2e per service population per year; or evidence of compliance with a Qualified GHG Reduction Strategy for evaluating operation-related emissions (BAAQMD 2011). These thresholds were developed based on overall projections of development in the region and how the region would come into compliance with the goals established by AB 32.

On March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted these thresholds. The court did not determine whether the thresholds were valid on the merits, but rather found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease their dissemination until the BAAQMD had complied with CEQA. On August 13, 2013, the Court of Appeals reversed the Superior Court's decision, finding that the BAAQMD's thresholds were not a "project" under CEQA and, as such, did not require CEQA review. Although the Alameda County Superior Court has ordered the BAAQMD to cease dissemination of the previously adopted thresholds, the court has made no finding on the applicability or the merits of the quantitative threshold. BAAQMD states that lead agencies will need to determine appropriate air quality thresholds to use for each project they review based on substantial evidence that they should include in the administrative record for the project. One resource BAAQMD provides as a reference for determining appropriate thresholds is the CEQA Thresholds Options and Justification Report developed by staff in 2009 (BAAQMD 2009). The report outlines substantial evidence supporting a variety of thresholds of significance.

On November 26, 2013, the California Supreme Court by unanimous vote granted review to address the legal issue of whether CEQA review is confined to an analysis of a proposed project's impacts on the existing environment or also requires analysis of the existing environment's impacts on the proposed project and its future occupants and users. On December 17, 2015, the State Supreme Court concluded that agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project. The decision vindicated the air district's CEQA stance to a considerable degree in that it reduced the focus

of the lawsuit to the issue of thresholds surrounding the siting of sensitive receptors. Furthermore, the decision did not invalidate such thresholds, but simply noted that it is not appropriate to apply them to every proposed project routinely.

The BAAQMD has yet to announce a recommendation to use its 2010 thresholds in light of these court decisions. Nevertheless, in the meantime, jurisdictions may exercise their discretion and utilize said thresholds based on a determination that they are supported by substantial evidence. Based on a review of the BAAQMD's (2009) CEQA Thresholds Options and Justification Report, the City has determined, in its discretion, that the guidelines are based on substantial evidence to "attribute an appropriate share of greenhouse gas emission reductions necessary to reach AB 32 goals to new land use development projects in the BAAQMD's jurisdiction that are evaluated pursuant to CEQA" (BAAQMD 2011). Therefore, the City is using the BAAQMD CEQA Guidelines to determine the level of impact from the project's contribution of GHG emissions.

The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions; however, the air district recommends the quantification and disclosure of construction-generated GHG emissions.

The BAAQMD project-level operational threshold of significance for GHG emissions is the project generation of 1,100 metric tons of CO_2e per year during operations (bright-line numeric threshold); or the project generation of 4.6 metric tons of CO_2e per service population per year during operations (efficiency-based threshold); or compliance with a Qualified GHG Reduction Strategy. For the purposes of this assessment, the proposed project's service population (project employees and patrons) is identified in order to present the project's service population efficiency in comparison to the BAAQMD efficiency-based threshold of 4.6 metric tons of CO_2e per service population per year.

As previously described, statewide goals for GHG reductions in the years beyond 2020 have been recently codified into state law with the passage of SB 32. SB 32 codifies the 2030 target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes the state board to adopt an interim GHG emissions level target to be achieved by 2030. SB 32 states that the intent is for the Legislature and appropriate agencies to adopt complementary policies which ensure that the long-term emissions reductions advance specified criteria. However, at the time of writing this document, no specific policies or emissions reduction mechanisms have been established. Therefore, while project design can contribute to reducing potential GHG emissions from the proposed project, achievement of future GHG efficiency standards is also dependent on regulatory controls applied to all sectors of the California economy. Thus, the ability of this project—and all land use development—to achieve GHG reduction goals beyond 2020 is partially out of the control of the project and its proponents.

Given the recent legislative attention and judicial action regarding post-2020 goals and the scientific evidence that additional GHG reductions are needed beyond the year 2020 to stabilize CO_2 concentrations, the Association of Environmental Professionals' (AEP) Climate Change Committee (2016) recommended in its Beyond 2020: The Challenges of Greenhouse Gas Reduction Planning by Local Governments in California (Beyond 2020) white paper that CEQA analyses for most land use development projects can continue to rely on current thresholds for the immediate future, but that long-term projects should consider "post-2020 emissions consistent with 'substantial progress' along a post-2020 reduction trajectory." The Beyond 2020 white paper further recommends that the "significance determination…should be based on consistency with 'substantial progress' along a post-2020 trajectory." Accordingly, project-related impacts in 2030 are considered in this analysis.

The project is compared to the City's Climate Action Plan and ABAG's Plan Bay Area (the RTP/SCS for the San Francisco Bay Area), which establishes an overall greenhouse gas reduction target for the project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32.

Changes in the CEQA Guidelines

The ECR/C EIR used the following guidelines from criteria presented in the CEQA Guidelines (including the 2010 amendments) and the BAAQMD 2010 CEQA Guidelines to determine the thresholds of significance:

3) Generate greenhouse gas emissions, either directly or indirectly, in excess of 4.6 metric tons of CO2e per year per service population; or

4) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The BAAQMD project-level operational threshold of significance for GHG emissions is the project generation of 1,100 metric tons of CO_2e per year during operations (bright-line numeric threshold); or the project generation of 4.6 metric tons of CO_2e per service population per year during operations (efficiency-based threshold); or compliance with a Qualified GHG Reduction Strategy. Therefore, the addition of the threshold of 1,100 metric tons of CO_2e is a change in the guidelines.

METHODOLOGY

GHG and climate change-related impacts were assessed in accordance with methodologies recommended by the BAAQMD, based on the development potential assumptions provided by the project applicant. Criteria air pollutant emissions were modeled using the California Emissions Estimator Model (CalEEMod) (see **Appendix AIR**). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions from a variety of land use projects.

IMPACTS AND MITIGATION MEASURES

Generation of Greenhouse Gas Emissions (Standard of Significance 1)

Impact 3.6.1 The project would not exceed the BAAQMD's service population efficiency threshold. This impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

Implementation of the ECR/C Area Plan would increase commercial development in the planning area and could result in increased GHG emissions, which would contribute to global climate change. Global climate change is a significant cumulative impact, caused by the cumulative GHG emissions from human activities. For the purposes of the ECR/C EIR, the analysis made the determination of whether the plan would make a cumulatively considerable contribution to the overall cumulative impact of global climate change. Future emissions were estimated to increase 6,515 metric tons of CO_2e in 2020 and 6,769 metric tons of CO_2e in 2035 under a business-as-usual scenario. Per capita emissions are projected to increase to 2020 and then again slightly increase to 2035. These projections are without any reductions due to state policy. State mandates and local programs will significantly reduce GHG emissions by 2020. These include California's Renewables Portfolio Standard and Low Carbon Fuel Standard,

AB 1492 reducing GHG emissions from new motor vehicles, and the BAAQMD CEQA Air Quality Guidelines. With emissions reductions under these laws and guidelines, the project would result in 2035 emissions levels that are slightly higher than baseline levels without the project, but emissions per service population are lower than the BAAQMD thresholds baseline rate under the plan. Due to these emissions reductions, emissions in 2020 and 2035 would not exceed existing levels. Per service population emissions would not exceed 4.6 metric tons of CO_2e. Therefore, the project would not make a considerable contribution to the impact.

Subsequent Project Impacts

Contribution of Greenhouse Gas Emissions

The project's GHG emissions would be generated over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with new vehicular trips and indirect source emissions, such as electricity usage for lighting.

Construction GHG Emissions

The approximate quantity of annual GHG emissions generated by construction equipment is shown in **Table 3.6-5.**

TABLE 3.6-5
CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS (METRIC TONS PER YEAR)

Year of Construction Activities	CO_2e
2017	556
2018	870
2019	450
Total	**1,876**

*Source: CalEEMod version 2016.3.1. See **Appendix AIR** for emission model outputs.*

As shown, construction would generate approximately 1,876 metric tons of CO_2e. Once construction is complete, generation of GHG emissions associated with construction would cease.

Operational GHG Emissions

The project's long-term operational emissions are summarized in **Table 3.6-6**.

TABLE 3.6-6
OPERATIONS-RELATED GREENHOUSE GAS EMISSIONS (METRIC TONS PER YEAR)

Emissions Source	CO_2e
Area Source (landscaping, hearth)	0
Energy	933
Mobile	4,174
Waste	288
Water	102
Total	**5,497**

*Source: CalEEMod version 2016.3.1. See **Appendix AIR** for emission model outputs.*

As shown in **Table 3.6-6**, project operations would generate approximately 5,497 metric tons of CO_2e annually.

The proposed project's service population (project employees and patrons) is identified to present the project's service population efficiency in comparison to the BAAQMD efficiency-based threshold of 4.6 metric tons of CO_2e per service population per year. To estimate the number of people who will visit the site, the number of potential project-related daily vehicle trips is divided by two to account for each service population member making one trip to and one trip from the site; therefore, each project customer and vendor would count for two trips. This is a conservative assumption since each vehicle is assumed to accommodate only one person, whereas many of the vehicles would accommodate more than one person. The proposed project would generate approximately 5,571 trips per day (see **Appendix TRA**).[3] The number of trips per day is divided by two (2,786) to derive the service population.

As shown in **Table 3.6-7,** dividing the project GHG emissions yields a metric ton per service population ratio of 1.97. This ratio of 1.97 metric tons of CO_2e per service population annually is below the BAAQMD efficiency-based threshold of 4.6. Therefore, the revised project would continue to have a **less than significant** impact.

TABLE 3.6-7
PROJECT GHG EMISSIONS PER SERVICE POPULATION

Per Capita Emissions	Emissions	Service Population	$MTCO_2e/SP/Year$	Threshold	Exceed Threshold?
Proposed Project	5,497	2,786	**1.97**	4.6	**No**

Mitigation Measures

None required.

Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases (Standard of Significance 2)

Impact 3.6.2 The project would not conflict with an applicable plan adopted for the purpose of reducing GHG emissions for the year 2020. This impact would be **less than cumulatively considerable**.

ECR/C Area Plan EIR Impacts

The City did not have an adopted policy or plan regarding the reduction of GHG emissions in 2011. The City had undertaken a community-wide GHG inventory and was developing a climate action plan. The ECR/C Area Plan and the City's General Plan policies conform to the control strategies in the Bay Area 2010 Clean Air Plan. Therefore the project would have a less than significant impact (South San Francisco 2011b, p. 3.3-43).

[3] Note: The TIA states the ECR/C plan area would add 9,962 additional trips. However, the project only encompasses blocks D and E (-340 trips), blocks F and G (4,856 trips), and the outside focus area (1,055 trips) for a total of 5,571 trips. Therefore, the GHG analysis used 5,571 trips in its calculations.

Subsequent Project Impacts

Compliance with South San Francisco Climate Action Plan

Climate Action Plan policies are intended to achieve transit-oriented and mixed land use development throughout South San Francisco, with an abundance of opportunity for alternative modes of transportation.

The CAP contains separate policy provisions addressing the increase of pedestrian, bicycle, and private shuttle systems. Consistent with the CAP, the Area Plan is a transit-oriented development in support of the South San Francisco BART station. The General Plan includes strategies to establish a transit-supportive environment by improving connections between the station and adjacent destinations, densifying and intensifying land uses at key locations within the plan area, and enhancing the physical design of the urban environment. The ECR/C Area Plan would provide moderate- to high-density housing in locations within convenient walking distance of employment centers, shopping centers, and transit routes. As such, the plan would result in improved access to local and regional transit services, as well as promote alternative means of transportation through increased access to pedestrian and bicycle facilities.

Furthermore, as listed above, the South San Francisco CAP contains environmental sustainability-related policy provisions in the categories of land use and mixed-use development, open space, efficient and alternative transportation, transportation demand management, and parking that promotes transit. The Community Civic Campus Project promotes a similar commitment to sustainability as contained in the City's Climate Action Plan. A diversity of transportation options reduces dependence on a single mode of transportation and provides feasible long-term alternatives in response to fuel shortages, climate change, and other unforeseen challenges. The Community Civic Campus Project has been developed with the objective of environmental sustainability, as its focus is to enhance utilization of an existing commuter rail line. Compliance with the City's CAP will greatly reduce the regional GHG emissions.

Compliance with Association of Bay Area Governments Plan Bay Area 2013–2040

ABAG's Plan Bay Area is the RTP/SCS for the San Francisco Bay Area. Plan Bay Area establishes GHG emissions goals for automobiles and light-duty trucks, a potent source of GHG emissions attributable to land use development. As previously described, the California Air Resources Board tasked ABAG with achieving a 7 percent per capita reduction in mobile-source GHG emissions compared to 2005 vehicle emissions by 2020 and a 15 percent per capita reduction by 2035. Plan Bay Area 2013–2040 establishes an overall mechanism to achieve these GHG targets for the project region consistent with both the target date of AB 32 (2020) and the post-2020 GHG reduction goals of SB 32. CARB (2014) confirmed that the project region will achieve its GHG reduction targets by implementing Plan Bay Area. The plan contains thousands of individual transportation projects, including highway improvements, railway electrification, bicycle lanes, new transit hubs, and replacement bridges. These future investments seek to reduce traffic bottlenecks, improve the efficiency of the region's transportation network, and expand mobility choices. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, Plan Bay Area is supported by a combination of transportation and land use strategies that help the region achieve state GHG emissions reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and use resources more efficiently.

Since the project site is an Urbanized Area in the RTP/SCS planning period as opposed to a Priority Conservation Area, and is surrounded by lands identified as Urbanized Area, it is included in an area where urban development is predicted by ABAG (2013, Map 1). The proposed project would maximize mobility and accessibility because of its close proximity to the South San Francisco BART station (approximately 0.5 mile away) and the El Camino and Arroyo Drive SamTrans stop (approximately 0.1 mile away).

For these reasons, the project would be consistent with Plan Bay Area, and it can be assumed that regional mobile emissions will decrease in line with the goals of Plan Bay Area with implementation of the proposed project. Implementing Plan Bay Area will greatly reduce the regional GHG emissions from transportation, and the proposed project would not obstruct the achievement of the plan's emissions reduction targets. Therefore, the revised project's impact would continue to be **less than cumulatively considerable**.

Mitigation Measures

None required.

3.6.5 REFERENCES

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3.7 – Hazards and Hazardous Materials

This section discusses safety hazards in the project area and analyzes the potential for the proposed project to create hazards to public health or the environment related to hazardous materials and airport hazards. For information about toxic air contaminants, please refer to Section 3.2, Air Quality.

3.7.1 SEIR SUMMARY TABLE

A summary of the Community Civic Campus Project impact conclusions related to hazards and hazardous material is provided below.

Impact Number	Impact Topic	Impact Significance
3.7.1	Hazardous materials use	Less than significant
3.7.2	Cortese List sites and potential for environmental contamination	Less than significant with mitigation
3.7.3	Hazardous building materials	Less than significant
3.7.4	Cumulative hazardous materials impacts	Less than cumulatively considerable with mitigation

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.7.4.

3.7.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

Land uses in the planning area for the El Camino Real/Chestnut Avenue (ECR/C) Area Plan include medical, commercial, office, and residential. Activities associated with these land uses may pose environmental, health, and safety risks. These risks include accidents involving vehicles transporting hazardous materials or hazardous wastes, accidental spills or leaks, and improper use, handling, storage, transport, and disposal of hazardous materials. The 2011 ECR/A Area Plan EIR indicated there were two locations with permitted underground storage tanks (USTs), but no open cases of soil or groundwater contamination within the planning area or sites included on the Cortese List (South San Francisco 2011b).[1]

The City of South San Francisco has adopted an emergency operations plan (Association of Bay Area Governments Multi-Jurisdictional Local Hazard Mitigation Plan), which is used for managing the City's response to multi-department and multi-jurisdiction emergencies and to facilitate communications and coordination between all levels of the system and among all responding departments and agencies.

The planning area is not identified as a fire hazard management unit in the City's General Plan, which identifies areas that need vegetation management or other measures to reduce wildland fire risk and increase the potential for successful fire suppression.

[1] Government Code Section 65962.5 requires compilation of a list of hazardous waste and substances sites to be used as a planning document by state and local agencies and developers to comply with the CEQA requirements. This list is commonly referred to as the Cortese List. The California State Water Resources Control Board (SWRCB) and the California Department of Toxic Substances Control (DTSC) maintain lists of contaminated sites in California (GeoTracker and EnviroStor databases, respectively).

The planning area is located north of San Francisco International Airport (SFO) and within the San Mateo County Airport Land Use Commission's (ALUC) jurisdiction. The ALUC allows development within the ALUC boundaries, provided that development is below a prescribed height limit and within certain noise level ranges. These limits are established in the Comprehensive Airport Land Use Compatibility Plan, the most recent of which was adopted by the City/County Association of Governments of San Mateo County (C/CAG) in 2012. The planning area is not located in any runway safety zones, but it is within Airport Influence Area B (C/CAG 2012).

PROJECT SITE CURRENT CONDITIONS

The eastern project site is vacant except for the office/commercial development on one parcel on the east side. A channelized segment of Colma Creek flows through the eastern project site. The western project site contains the existing Municipal Services Building and an adjacent parking lot. The Municipal Services Building, which has a subterranean garage, houses the South San Francisco Parks and Recreation Department, the South San Francisco Police Department, and South San Francisco Fire Station No. 63.

Hazardous Materials

Hazardous materials use and waste generation is minimal on the western project site because current developed uses are limited to the City's Municipal Services Building and office/commercial activities.

A Phase I Environmental Site Assessment (ESA) was prepared in August 2016 for a portion of the eastern project site and additional parcels not part of this project (see **Appendix HAZ**). The eastern project site contains two sites listed on the Cortese List. Both are former underground fuel storage tank sites that are on the parcel which would remain developed with existing uses. The two sites are indicated as "case closed" in the EnviroStor and GeoTracker regulatory databases. The remaining parcels on the eastern project site are currently vacant. However, based on a cursory review of aerial photographs from the 1950s to the early 2000s, there were various small features, including vehicles and a parking lot, indicating some activity occurred on the eastern project site for several years.

There are no Cortese List sites on the western project site. However, there is an active soil and groundwater investigation and cleanup site on the parcel adjoining the Municipal Services Building. Soil, soil vapor, and shallow, perched groundwater beneath a former dry cleaning business (My Cleaners) is contaminated with volatile organic compounds (VOCs). Investigations are also being performed to determine whether two former dry cleaners upgradient from the My Cleaners site have also contributed to VOCs in the immediate area. The San Mateo County Environmental Health Department is overseeing the assessments at the three former dry cleaner sites (DTSC 2017; SWRCB 2017).

The planning area is crossed by a Pacific Gas and Electric Company (PG&E) 30-inch high-pressure gas line, which runs southeasterly along Mission Road and enters the planning area near Oak Avenue and continues southeast toward First Street (South San Francisco 2011b). The high-pressure gas line was relocated as outlined in the El Camino Real Specific Plan and it does not cross the project site.

The Municipal Services Building and Fire Station No. 63 were constructed in the 1970s. Building materials in structures constructed at the time sometimes contain hazardous materials such as asbestos-containing materials (ACM) in insulation and flooring materials. Lead-based paint (LBP)

may have also been used. Prior to demolition of structures where ACM or LBP may be present, regulations require testing for the materials, and if these materials are present in amounts that are subject to regulation, demolition may not proceed until hazards have been abated.

California Environmental Quality Act (CEQA) Guidelines Section 15186 establishes a special requirement for certain projects near schools to ensure that potential health impacts resulting from exposure to hazardous materials, wastes, and substances will be examined and disclosed in a negative declaration or EIR. There are two schools within 0.25 mile of the project site: Urban Sprouts Preschool and R. W. Drake Preschool.

Airport Operations Hazards

The project site is not located in any runway safety zones at SFO, but it is within Airport Influence Area B (C/CAG 2012).

Emergency Response/Evacuation

The project site is bisected by El Camino Real, which may be used for evacuation purposes in the event of an emergency. There is an existing Fire Station (Station No. 63) adjoining the Municipal Services Building on the western project site. As part of the proposed project, this station would be replaced and would remain in its same location.

3.7.3 REGULATORY FRAMEWORK

FEDERAL

Several federal agencies regulate hazardous substances. These include the US Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), and the US Department of Transportation (DOT). Applicable federal regulations and guidelines are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR).

The key EPA laws governing the use, storage, and disposal of hazardous materials that are relevant to the proposed project are the Resources Conservation and Recovery Act (RCRA), the Hazardous and Solid Waste Amendments Act, and the Toxic Substances Control Act, which address hazardous materials and wastes, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act, which address cleanup of contamination. Specific regulations for implementation of these statutes are codified in CFR Title 40. Federal regulations have also been adopted regarding the removal and disposal of asbestos-containing materials and items containing polychlorinated biphenyl (PCB).

CFR Title 29, Part 1910 describes the federal Hazard Communication Standard, which requires that workers, including workers at construction sites, be informed of the hazards associated with the materials they handle. Training in chemical work practices must include methods in the safe handling of hazardous substances, use of emergency response equipment, and an explanation of the building emergency response plan and procedures.

The transportation of hazardous materials on roadways and by rail and air is regulated by the DOT and the EPA. These two agencies coordinate their efforts, especially at the regional level, to obtain compliance with both RCRA and Hazardous Materials Transportation Act (HMTA) regulations. Under the authority of the RCRA, the EPA regulates the transportation of hazardous

materials. The EPA coordinates its transportation ordinances with the requirements of the HMTA and any statutes promulgated by the US Department of Transportation pursuant to the HMTA.

Occupational and Safety Health Act (29 USC Section 651 et seq.)

The Occupational and Safety Health Act is intended to ensure worker and workplace safety by requiring that employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions.

Toxic Substances Control Act (15 USC Section 2601 et seq.)

The Toxic Substances Control Act provides the EPA with the authority to require reporting, record-keeping, and testing requirements, and restrictions relating to chemical substances and/or mixtures. The act addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyl, asbestos, radon, and lead-based paint.

Federal Hazardous Materials Transportation Law and Hazardous Materials Regulations (49 USC Section 5101 et seq.)

The federal hazardous materials transportation law is the basic statute regulating the transportation of hazardous materials in intrastate, interstate, and foreign commerce. The Hazardous Materials Regulations are administered by the Pipeline and Hazardous Material Safety Administration (PHMSA) and implement the federal hazmat law. The regulations govern the transportation of hazardous materials via highway, rail, vessel, and air by addressing hazardous materials classification, packaging, hazard communication, emergency response information, and training. They also issue procedural regulations, including provisions on registration and public sector training and planning grants (49 CFR Parts 105, 106, 107, and 110).

STATE

Hazardous Materials and Waste Management

The primary state laws pertaining to hazardous materials and wastes that may be applicable to the proposed project, depending on the activity, include the Hazardous Waste Control Law, the Hazardous Substances Information and Training Act, the Air Toxics Hot Spots and Emissions Inventory Law, the Underground Storage of Hazardous Substances Act, and the Porter-Cologne Water Quality Control Act.

At the state level, the California Environmental Protection Agency (CalEPA) is the "umbrella" agency under which a number of the state's environmental agencies operate. These subordinate agencies include the California Air Resources Board, the Department of Pesticide Regulation, the Department of Toxic Substances Control (DTSC), the Department of Resources Recycling and Recovery (CalRecycle), the Office of Environmental Health Hazard Assessment, and the State Water Resources Control Board (SWRCB).

Within CalEPA, the DTSC has primary regulatory responsibility for hazardous waste management. CalEPA has adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program is implemented at the local level by a local agency—the Certified Unified Program Agency (CUPA). The San Mateo County Environmental Health Department is the CUPA with oversight of projects in South San Francisco. Assembly Bill 2286 requires all businesses handling regulated quantities of hazardous

material to electronically report inventories and site maps to the local jurisdiction. As the CUPA, the County's Environmental Health Department is required to report hazardous materials inventories and compliance inspection data to the State of California.

The California Highway Patrol, the California Department of Transportation (Caltrans), and the DTSC implement and enforce state and federal laws regarding hazardous materials transportation.

Certain projects are required to comply with the National Pollutant Discharge Elimination System (NPDES) general construction permit to manage stormwater runoff (see Section 3.8, Hydrology and Water Quality). This permit requires a stormwater pollution prevention plan (SWPPP) that identifies best management practices (BMPs) for the handling of fuels and oils, including measures to minimize the potential for spills. These BMPs are intended to minimize the potential for accidental spills on construction sites by requiring the designation of safe, covered storage areas for such materials as well as safe handling practices.

LOCAL

City of South San Francisco General Plan

The City's General Plan includes Chapter 8, the Health and Safety Element, that addresses hazards in a comprehensive manner through hazard abatement policies and measures to reduce risks to life and property in existing and new development. Policies that are relevant to the project are:

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.

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, Cal EPA), and local (County of San Mateo, City of South San Francisco) regulations.

El Camino Real/Chestnut Avenue Area Plan

Section 3.2 in the ECR/C Area Plan establishes the maximum building heights for the project site at 80 feet, rising to 120 feet with discretionary approval. Figure 3-2 in the Area Plan illustrates the planning area relative to height restrictions for SFO. The project site is not in an area subject to Federal Aviation Regulations Part 77 airspace protection surfaces subject to height restrictions.

The Area Plan does not include any policies that address hazardous materials.

3.7.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

This analysis evaluates the project's impacts from hazards and hazardous materials based on the standards identified in CEQA Guidelines Appendix G. A hazards and hazardous materials impact is considered significant if the project would:

1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

2) 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.

3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

4) 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.

5) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.

6) For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

8) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Changes in the CEQA Guidelines

There have been no changes in the CEQA Guidelines since 2011 that are relevant to the analysis of hazards and hazardous materials impacts.

Impacts Not Evaluated in Detail

The maximum building heights for the project site were established in the ECR/C Area Plan. The site is not in an area subject to Federal Aviation Regulations Part 77 airspace protection surfaces subject to height restrictions. There are no private airports within 2 miles. There would be no impacts relative to Standards of Significance 5 and 6, and these impacts are not further evaluated.

The project site is an urban infill site and is not located at a wildland-urban interface. There would be no impact relative to Standard of Significance 8, and this impact is not further evaluated.

METHODOLOGY

The following qualitative impact analysis is based on a review of the analysis completed in the project area for the ECR/C Area Plan EIR, supplemented with current information from public databases pertaining to hazardous materials, and the current adopted Comprehensive Airport Land Use Compatibility Plan for SFO.

PROJECT IMPACTS AND MITIGATION MEASURES

Hazardous Materials Use (Standards of Significance 1, 2, and 3)

Impact 3.7.1 The proposed project would involve the use of hazardous materials during demolition, construction, and operation, but types and amounts would be limited due to the civic campus land uses. This impact would be **less than significant**.

ECR/C Area Plan EIR Impacts

The ECR/C Area Plan EIR concluded there would be no impacts related to hazardous materials use, including uses near schools, because the land use designations and zoning would limit development to commercial and residential uses. No hazardous materials handlers (e.g., auto repair) would be permitted as a commercial land use (South San Francisco 2011b).

Subsequent Project Impacts

Demolition and construction activities would require the temporary transport, handling, use, storage, and disposal of common products used in construction equipment such as gasoline, diesel fuel, oils, and construction materials such as solvents, asphalt, glues and cements, and paints. The ECR/C Area Plan would be amended to allow for the proposed municipal uses, and activities in the new facilities would involve the routine use of common items such as cleaning and maintenance products. Similar to the approved uses in the ECR/C Area Plan, none of community civic campus uses would involve large quantities of hazardous materials or industrial uses that would pose a substantial adverse risk to people and the environment. None of the activities or uses would result in hazardous air emissions within 0.25 mile of the preschools in the vicinity.

As described in subsection 3.7.3, Regulatory Framework, numerous existing regulations at the federal, state, and local levels are intended to minimize potential hazards to the public and the environment from the improper handling or accidental release of hazardous materials. As described in Section 3.8, Hydrology and Water Quality, in compliance with the State's Construction General Permit, the City would be required to prepare and implement an approved SWPPP that identifies measures to ensure hazardous materials use is managed properly to reduce the possibility of contamination of nearby waterways. Construction contractors would be responsible for ensuring compliance with applicable regulations during any construction activities involving hazardous materials use or the generation of hazardous waste. This would minimize the potential for improper use, transport, and disposal that could result in releases of hazardous materials. The revised project's impact would be **less than significant**.

Mitigation Measures

None required.

Cortese List Sites and Potential for Environmental Contamination (Standards of Significance 2, 3, and 4)

Impact 3.7.2 The proposed project would involve ground disturbance in locations adjacent to or near known sources of soil and groundwater contamination (western project site) or where there is the potential for contamination from historic

uses (eastern project site). This impact would be **less than significant with mitigation**.

ECR/C Area Plan EIR Impacts

The ECR/C Area Plan EIR stated that the planning area does not contain any sites listed on the DTSC's Cortese List, and there would be no impact posed by future development on a site listed on the Cortese List (South San Francisco 2011b).

Subsequent Project Impacts

If project construction activities result in soil disturbance, there is the potential that hazardous materials contamination could be encountered. This could pose a risk to construction workers through direct contact with contaminated soils or an inhalation hazard from dust containing contaminants. The public could also be at risk from contaminated soil that becomes airborne. If soil containing contaminants is exposed during rain events, there is the potential for stormwater to become contaminated and discharged to the City's storm drain system, where it could adversely affect water quality in Colma Creek, which receives runoff from the planning area. If soil requires export (e.g., on the eastern project site), there is the potential that contaminated soil could be disposed of improperly. This would be a potentially significant impact because it could result in 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.

Environmental site assessments (ESAs) are used to ascertain the potential for hazardous materials to be present in the environment (soil, soil vapor, surface water, sediment, or groundwater). The results of a Phase I ESA are used to determine whether additional investigation and/or cleanup or other management controls are necessary to protect human health and the environment (Phase II ESA). Even with due diligence, there would still be the potential for previously unknown or unidentified environmental contamination to be discovered during earthwork, particularly during excavation and trenching. The mechanisms for human and environmental exposure would be as described above and would be a potentially significant impact. For the portion of the project that has an existing ESA (see **Appendix HAZ**), recommendations for remediation would need to be implemented or an additional Phase II would be required prior to construction. For those parcels that have no ESA, implementation of mitigation measures **MM 3.7.2a** and **MM 3.7.2b** would ensure that hazardous materials contamination, if any, is properly identified and managed in accordance with applicable regulations. The potential environmental impacts of remediation (e.g., removing contaminated soil) would be mitigated through adherence to applicable regulations, and the benefits of remediation would outweigh the potential risks. This would reduce the revised project's impacts to **less than significant with mitigation**.

Mitigation Measures

MM 3.7.2a If project construction will result in soil disturbance or underground utility work where soil will be disturbed, the City shall require that a Phase I Environmental Site Assessment be completed according to ASTM E 1527 (Standard Practice for Environmental Site Assessments). A Phase I ESA shall also be required for any work involving subsurface building structures at the Municipal Services Building due to the presence of soil vapor investigations and monitoring wells on the adjoining parcel to the east.

If the Phase I ESA concludes there are no recognized environmental conditions, as defined in ASTM E 1527, work may proceed, but construction drawings shall include a note indicating the potential to encounter previously unknown contamination, as specified in mitigation measure **MM 3.7.2b**. If the Phase I ESA concludes that a Phase II ESA is required to investigate the extent of known or potential contamination, construction may not occur until a work plan describing remediation and/or necessary site controls has been approved and the site has been remediated to the satisfaction of the regulatory agency with oversight responsibility. The appropriate regulatory agency or agencies will depend on the nature of the contamination and could include the San Mateo County Environmental Health Department, the San Francisco Bay Regional Water Quality Control Board, and/or the California Department of Toxic Substances Control.

MM 3.7.2b If hazardous materials are encountered during construction or accidentally released as a result of construction activities, the following procedures shall be implemented:

- The contractor shall stop all work within 100 feet of any discovered contamination or release.
- A qualified professional shall determine the scope and immediacy of the problem and recommend control measures.
- The City shall be responsible for regulatory oversight agency notification as required by state law and regulations.
- The City shall commence the necessary investigation and remediation activities to resolve the situation before continuing construction work.

Hazardous Building Materials (Standards of Significance 2 and 3)

Impact 3.7.3 The proposed project would demolish Fire Station No. 63 prior to its replacement. If the building contains asbestos or lead-based paint, there is the potential for these materials to be released to the environment. This impact would be **less than significant**.

2011 ECR/C Area Plan EIR Impacts

The ECR/C Area Plan EIR did not identify any impacts pertaining to asbestos-containing materials or lead-based paint.

Subsequent Project Impacts

Building materials sometimes contain hazardous materials such as ACM in insulation and flooring materials. LBP may have also been used. Prior to demolition of structures where ACM or LBP may be present, regulations require testing for the materials. If these materials are present in amounts that are subject to regulation, demolition may not proceed until hazards have been abated. The City would be responsible for ensuring proper testing and removal of these materials, which would reduce the potential for accidental release or improper disposal that could pose an adverse human health or environmental risk. Impacts would be **less than significant**.

Mitigation Measures

None required.

3.7.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The ECR/C EIR defined the cumulative setting for the analysis of impacts as development of the Area Plan through 2030 concurrent with development in the region (South San Francisco 2011b).

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Hazardous Materials Impacts

Impact 3.7.4 The project, in combination with regional development, would result in hazardous materials use and/or potential impacts associated with hazardous materials contamination, but the project's contribution would be **less than cumulatively considerable with mitigation**.

2011 ECR/C Area Plan Impacts

The 2011 ECR/C EIR found all impacts on hazards and hazardous materials to be less than significant and did not find any cumulatively considerable impacts on hazardous materials (ECR/C EIR, page 3.12-11).

Subsequent Project Impacts

Hazardous materials impacts are generally site-specific and not cumulative by nature, as impacts generally vary by land use, site characteristics, and site history. Hazardous materials are routinely used in South San Francisco, primarily in research and development and industrial land uses. Demolition, construction, and operation of the proposed project would not result in new hazardous materials uses or an increase in hazardous materials use compared that which would have occurred with implementation of the approved Area Plan, as described in Impact 3.7.1. As such, the proposed project's contribution would be less than cumulatively considerable. For sites where hazardous materials contamination may be present, there is a comprehensive regulatory framework for investigating, evaluating, and remediating, where necessary, potential hazards, including but not limited to environmental contamination and hazardous materials in building features. The proposed project may result in impacts related to hazardous materials contamination (Impacts 3.7.2 and 3.7.3), but with implementation of mitigation measures (**MM 3.7.2a** and **MM 3.7.2b**) and adherence to existing regulations, the project's contribution would not be cumulatively considerable. Therefore, the project's contribution to hazardous materials impacts would be **less than cumulatively considerable with mitigation**.

Mitigation Measures

MM 3.7.2a and MM 3.7.2b

3.7.6 REFERENCES

C/CAG (City/County Association of Governments of San Mateo County). 2012. *Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport.*

DTSC (Department of Toxic Substances Control). 2017. EnviroStor database.

South San Francisco, City of. 2011a. *El Camino Real/Chestnut Avenue Area Plan – General Plan Amendment.*

———. 2011b. *City of South San Francisco El Camino Real/Chestnut Avenue Area Plan, and associated General Plan Amendment, and Zoning Ordinance Amendment. Final Environmental Impact Report*.

———. 2014. *South San Francisco General Plan*.

SWRCB (State Water Resources Control Board. 2017. GeoTracker database.

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3.8 – HYDROLOGY AND WATER QUALITY

This section identifies the hydrological resources, the existing drainage conditions, and the surface water and groundwater quality in the project area. The section also evaluates the potential project impacts with respect to flooding, drainage, erosion, and water quality.

3.8.1 SEIR SUMMARY TABLE

A summary of the Community Civic Campus Project impact conclusions related to hydrology and water quality is provided below. Several hydrology impacts were determined to result in no impact and do not require further detailed analysis in this section. See Impacts Not Evaluated in Detail, in subsection 3.8.4.

Impact Number	Impact Topic	Impact Significance
3.8.1	Water quality standards	Less than significant
3.8.2	Cumulative stormwater runoff and water quality	Less than cumulatively considerable

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.8.4.

3.8.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

Surface Water Hydrology and Water Quality

The planning area is in the Colma Creek watershed. Colma Creek flows through portions of Colma, South San Francisco, San Bruno, and Daly City, extending from San Bruno Mountain to the creek's outlet at the San Francisco Bay just north of San Francisco International Airport and south of Point San Bruno. Colma Creek runs southeast through the planning area between El Camino Real and Mission Road. It is channelized along its reach through the planning area. Within the planning area, the majority of stormwater runoff is conveyed to a network of drain inlets and pipes that discharge to Colma Creek (South San Francisco 2011b).

The City has developed a Storm Water Management Plan and participates in the San Mateo Countywide Stormwater Pollution Prevention Program. The City has selected a number of best management practices (BMPs), which have been implemented for City-owned drainage systems and will be required for all new development or redevelopment to reduce contaminants from entering the City's stormwater system and Colma Creek. The City requires all new development and redevelopment to incorporate stormwater quality BMPs in drainage design to reduce urban pollutants discharged in stormwater to Colma Creek.

Colma Creek is listed under Section 303(d) of the federal Clean Water Act as an impaired water body due to trash. BMPs required by the City address trash, and upon project-level review, the City has required some projects to provide trash cleanup on a daily basis (South San Francisco 2011b).

Flood Hazards

Figure 3.11-1 in the El Camino Real/Chestnut Avenue (ECR/C) Area Plan EIR shows flood zones associated with Colma Creek in the planning area, based on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) available at that time. The Colma Creek channel was designated as Zone A, and areas northeast of the channel were designated Zone AE (South San Francisco 2011b).

The planning area is within the Colma Creek Flood Control Zone. Flood control and maintenance of stream channel improvements are the responsibility of the San Mateo County Flood Control District (South San Francisco 2011b).

Dam failure inundation maps prepared by the Association of Bay Area Governments (ABAG) show the planning area as urbanized with no dam failure inundation area. There are no levees along Colma Creek in the planning area (South San Francisco 2011b).

The Tsunami Inundation Emergency Planning map for the San Francisco Bay Region prepared by ABAG does not identify the planning area as a tsunami inundation area. The planning area does not contain nor is it near any large enclosed water bodies in the county that may pose significant seiche potential. The project site is flat, and because Colma Creek is channelized through the planning area, there is no mudflow hazard (South San Francisco 2011b).

Groundwater

Most of the planning area is largely built out with impermeable surfaces (approximately 80 percent), and underlying soils are typically clays with low permeability. There is limited potential for infiltration. Recharge is generally concentrated in the immediate near-stream areas where open space is present. Colma Creek is channelized through the planning area. Potable water supply for the planning area is provided by California Water Service (Cal Water) through existing local infrastructure (South San Francisco 2011b).

PROJECT SITE CURRENT CONDITIONS

Colma Creek is immediately northeast of the eastern project site. The western project site and the parcel with an existing structure are developed with impervious surfaces such as buildings and parking areas. Although there are some remnant impervious surfaces from past uses on the project site, there has been no development on the vacant parcels in the eastern project site or storm drainage system capacity improvements. Runoff from the western and eastern project sites is currently conveyed to the City's storm drain system from those locations and is discharged to Colma Creek.

In 2012, subsequent to the approval of the ECR/C Area Plan, FEMA published a new 100-year flood hazard map that includes the planning area. The project site is not within a 100-year flood hazard zone delineated on the 2012 map.

According to maps developed by the National Oceanic and Atmospheric Administration (NOAA), Colma Creek beginning just west of S. Spruce Avenue and continuing east toward Oyster Point and San Francisco Bay may be vulnerable to increased water levels (NOAA 2017). The project site is west of that location and therefore would not be anticipated to be at risk of climate change–induced sea level rise.

3.8.3 REGULATORY FRAMEWORK

FEDERAL

Clean Water Act

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States, including wetlands and perennial and intermittent stream channels. The CWA is administered and enforced at the state level by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs).

National Pollutant Discharge Elimination System

CWA Section 402 regulates construction-related stormwater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program, administered by the US Environmental Protection Agency (EPA). In California, the State Water Resources Control Board is authorized by the EPA to oversee the NPDES program through the Regional Water Quality Control Boards. The project area is under the jurisdiction of the San Francisco Bay RWQCB.

NPDES permits are required for projects that disturb more than 1 acre of land. The NPDES permitting process requires the applicant to file a public 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. In addition, it describes the best management practices (BMPs) that would be implemented to prevent soil erosion and discharge of other construction-related pollutants (e.g., petroleum products, solvents, paints, cement) that could contaminate nearby water resources. Permittees are required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants. Because the proposed project would disturb more than 1 acre of land, an NPDES permit and a SWPPP would be required for construction activities.

Section 402(p) of the CWA regulates stormwater discharges from municipal separate storm sewer systems (MS4s) and industrial activities. An MS4 is a conveyance system or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) designed or used for collecting or conveying stormwater. The San Francisco Bay RWQCB has issued a permit for municipal discharges, which is described under the Local subheading, below.

STATE

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act governs the coordination and control of water quality in the state and includes provisions relating to non-point source pollution. 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)."

RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of surface water and groundwater. Water quality objectives and beneficial uses for the San Francisco Bay and surface waters that flow to the bay are set forth in the Water Quality Control Plan for the San Francisco Bay Region (Basin Plan).

NPDES General Permit for Stormwater Discharges Associated with Construction

The SWRCB has adopted a General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order 2012-0006-DWQ). The Construction General Permit applies to any construction activity affecting 1 acre or more. The focus of the permit is to minimize the potential effects of construction runoff on receiving water quality. The permit requires preparation of a SWPPP that identifies best management practices describing erosion control measures. Project proponents (which includes the City of South San Francisco) are required to submit a notice of intent, a site map, a signed certification statement, an annual fee, and a SWPPP. The permit program is risk-based, wherein a project's risk is based on the project's potential to cause sedimentation and the risk of such sedimentation on the receiving waters. The project would result in more than 1 acre of disturbance and therefore would be required to implement permit requirements.

The SWPPP must include best management practices to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges. Examples of typical construction best management practices included in SWPPPs include, but are not limited to, using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters.

Small amounts of construction-related dewatering are covered under the Construction General Permit. Coverage under the Construction General Permit typically covers uncontaminated dewatering activities, which are considered in the permit to be authorized non–stormwater discharges. As part of the Construction General Permit, all dewatering discharges are required to be filtered or treated, using appropriate technology, from sedimentation basins.

REGIONAL

Municipal Regional Stormwater Permit

South San Francisco is one of 20 cities in San Mateo County that, together with other jurisdictions in Alameda, Contra Costa, and Santa Clara counties, are regulated under Joint Municipal NPDES Permit Municipal Regional Stormwater Permit [MRP] NPDES No. CAS612008 Order No. R2-2015-0049 issued by the San Francisco Bay RWQCB. Provision C.3 of the MRP contains requirements that each MRP discharger (such as the City of South San Francisco) must control the flow of stormwater and stormwater pollutants from new and redevelopment sites over which it has jurisdiction. Provision C.3.c establishes thresholds at which new development and redevelopment projects must comply with Provision C.3, although the MRP also requires agencies to encourage all projects subject to local development review to include adequate source control and site design measures that minimize stormwater pollutant discharges. Regardless of a project's need to comply with Provision C.3, municipalities apply standard stormwater conditions of approval for projects that receive development permits. These conditions of approval require appropriate site design, source control measures, and, in some cases, treatment measures. The thresholds for determining whether Provision C.3 applies to a project (in which case the project is a C.3 Regulated Project) are based on the amount of impervious surface that is created and/or replaced by a project (C/CAG 2014).

Because the City of South San Francisco is a permittee, implementation of the MRP requirements in the city is administered and monitored through the San Mateo Countywide Water Pollution Prevention Program.[1] The City currently requires the submittal of Stormwater Control Plans with all new development applications. Plans must be consistent with the Program's C.3 Stormwater Technical Guidance, which includes many options for site control and treatment of runoff.

LOCAL

City of South San Francisco General Plan

Section 7.2, Water Quality, of General Plan Chapter 7, Open Space and Conservation, contains the following policies that are relevant to the analysis of the proposed project's hydrology and water quality impacts:

7.2-G-l Comply with the San Francisco Bay RWQCB regulations and standards to maintain and improve the quality of both surface water and groundwater resources.

7.2-G-2 Enhance the quality of surface water resources and prevent their contamination.

7.2-G-3 Discourage use of insecticides, herbicides, or toxic chemical substances within the city.

7.2-1-1 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.

7.2-1-2 Review and update the Best Management Practices adopted by the City and in STOPPP as needed.

City of South San Francisco Municipal Code

Municipal Code Title 14, Water and Sewage, Chapter 14.04, Stormwater Management and Discharge Control, also known as the City of South San Francisco Stormwater Management and Discharge Control Ordinance, prohibits non-stormwater discharges to the City's storm sewer system. The purpose of the ordinance is to eliminate non-stormwater discharges to the municipal separate storm sewer, control the discharge to municipal separate storm sewers from spills, dumping, or disposal of materials other than stormwater, and reduce pollutants in stormwater discharges to the maximum extent practicable. Section 14.04.131 establishes that stormwater treatment requirements as specified in the MRP are mandated for certain categories of new and redevelopment projects based on the amount of impervious area created. Sections 14.04.132 and 14.04.133 set forth requirements for incorporating specific design strategies for non-regulated and regulated project, respectively. Section 14.04.134 requires that regulated projects implement low impact design (LID) requirements as specified in the MRP.

City of South San Francisco Best Management Practices

The City requires the implementation of BMPs for new development and construction as part of its stormwater management program, as levied through standard City conditions of project approval by the Public Works Department, Engineering Division. These BMPs address both stormwater quantity and quality.

[1] Formerly called the San Mateo Countywide Storm Water Pollution Prevention Program (STOPPP).

El Camino Real/Chestnut Avenue Area Plan

The ECR/C Area Plan contains the following policies that are applicable to the analysis of hydrology and water quality impacts:

UD-7 Ensure that development incorporates green building and site design measures such as energy-efficient building design, passive heating/cooling strategies, permeable paving, low-water-consumption planting, and stormwater management.

DG-40 Extensive and Intensive green roofs will manage stormwater runoff, reduce energy consumption through insulation, and provide common open space for residential units. Soil layers are typically two to six inches deep for Extensive roofs and eight to 24 inches deep for Intensive roofs, depending on the loading capacity of the roof and the architectural and plant features desired. All green roofs must be designed to permit routine maintenance and irrigation as necessary.

3.8.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Per the California Environmental Quality Act Guidelines (CEQA) Guidelines, a hydrologic or water quality impact is considered significant if project implementation would result in one or more of the following:

1) Violate any water quality standards or waste discharge requirements.
2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would in substantial flooding on- or off-site.
5) 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.
6) Otherwise substantially degrade water quality.
7) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
8) Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
9) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam.
10) Expose people or structures to inundation by seiche, tsunami, or mudflow.

Changes in the CEQA Guidelines

There have been no changes in the CEQA Guidelines since 2011 that are relevant to the analysis of hydrology and water quality impacts.

Impacts Not Evaluated in Detail

The ECR/C EIR concluded that implementation of the Area Plan would have no impact on groundwater supplies or recharge (South San Francisco 2011b). There are no changed circumstances since certification of the ECR/C EIR in 2011. There would be no impact relative to Standard of Significance 2, and this impact is not further evaluated.

As noted above, FEMA published a new 100-year flood hazard map in 2012, which identifies flood hazard zones that include Colma Creek and adjoining lands to the northeast, similar to that depicted in Figure 3.11-1 in the certified ECR/C EIR. Although a 100-year flood hazard zone is mapped in the planning area, the project site is not in the hazard zone, and the proposed project would not place housing or structures within that 100-year flood hazard area. There would be no impact relative to Standards of Significance 7 and 8, and these impacts are not further evaluated.

The project site is not in a dam or levee failure flood inundation area and is not in a location vulnerable to seiche, tsunami, or mudflow. The ECR/C EIR concluded there would be no impacts relative to Standards of Significance 9 and 10 (South San Francisco 2011b), and these impacts are not further evaluated. The project site is inland and is not in an area subject to climate change–induced sea level rise, including potential increases in water elevation in Colma Creek that are predicted east of the project site. There would be no impact relative to Standard of Significance 9, and this impact is not further evaluated.

METHODOLOGY

The following qualitative impact analysis is based on a review of published information, reports, maps, and plans regarding regional and local hydrology, water quality, and regulations.

PROJECT IMPACTS AND MITIGATION MEASURES

Water Quality Standards (Standards of Significance 1, 3, 4, 5, and 6)

Impact 3.8.1 Demolition, construction, and operation of the proposed project would change drainage patterns and generate increased stormwater runoff containing pollutants that could affect water quality. Compliance with existing regulations would reduce this impact to **less than significant**.

2011 ECR/C Area Plan Impacts

The ECR/C EIR stated that implementation of the Area Plan could result in increased rates of stormwater runoff and subsequent flooding hazards, erosion and siltation, and increases in nonpoint source pollutants affecting receiving water quality. During construction and operation, compliance with the Construction General Permit and the MRP during operation requires future development to provide permanent treatment for site runoff, prepare SWPPPs for construction-related activities, and implement BMPs as part a project's stormwater management program.

Because Colma Creek is concrete-lined through the planning area, future land use changes and resultant stormwater discharges to the creek would not result in changes in channel form (hydromodification) due to flows or sediment. An increase in stormwater flows and accompanying major infrastructure improvements is not anticipated. The ECR/C EIR concluded that implementation of the Area Plan would result in less than significant impacts on the capacity of stormwater drainage systems (South San Francisco 2011a, 2011b).

Future development would be subject to review and approval by the City Engineer and the City's Stormwater Coordinator and would be required to submit a SWPPP and an Erosion Control Plan to the City Engineer and the Water Quality Control Division prior to the commencement of any grading or construction. The SWPPP is required to include stormwater pollution control devices and filters to be installed to prevent pollutants from entering the City's storm drain system and the San Francisco Bay. Water quality measures are required to be included in the building permit packet. The ECR/C EIR concluded that with adherence to federal, state, and local laws, policies and standards in the General Plan and Municipal Code, and with standard development conditions, will ensure that impacts would be less than significant (South San Francisco 2011b).

Subsequent Project Impacts

Construction

The project would include construction activities on the vacant parcels on the eastern project site, which are near Colma Creek. These activities would alter the drainage pattern in the area. Construction site stormwater runoff has the potential to contribute soil and pollutants from equipment and materials handling to Colma Creek, which could affect water quality. The City's construction contractors would be required to implement a SWPPP and best management practices in accordance with the Construction General Permit requirements, as described in the certified ECR/C EIR. This would ensure construction activities would not violate water quality standards or waste discharge requirements or otherwise degrade water quality. The project would not result in any new or more severe impacts related to construction runoff, changes in drainage patterns, erosion, and water quality impacts than previously identified. Impacts would continue to be **less than significant**.

Operation

The new fire station that would replace the existing fire station would not result in an increase in impervious surfaces that would be a new source of urban runoff which could contribute flows or pollutants to Colma Creek. The currently vacant portion of the eastern project site was assumed to be developed with buildings, sidewalks, paving, hardscaping, and other features that would increase surface runoff, but plazas and landscaping that would help reduce runoff in that area would also be a component of future design. The proposed project would result in a smaller overall building footprint in Blocks D, E, F, and G compared to the approved ECR/C Area Plan concept, which would reduce the amount of runoff from building rooftops compared to the approved plan. In addition, the proposed project would include and emphasize outdoor use areas, which provide greater opportunities for the creation of permeable surfaces, thus reducing runoff.

While the proposed project would contribute stormwater flows to the City's storm drain system, it would not result in new increases not previously anticipated. New development on the project site would be required to implement stormwater runoff reduction measures as directed under Area Plan Policies UD-7 and DG-40, and as required under Municipal Code Chapter 14.04,

Stormwater Management and Discharge Control, in compliance with the MRP Provision C.3 of the San Mateo Countywide Water Pollution Prevention Program C.3 Stormwater Technical Guidance Manual. As noted in the ECR/C Area Plan, an increase in stormwater flows and accompanying major infrastructure improvements is not anticipated for the planning area. The proposed project would not result in any new or more severe operational impacts related to hydrology and water quality than previously identified. Impacts would continue to be **less than significant**.

Mitigation Measures

None required.

3.8.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The ECR/C EIR defined the cumulative setting for the analysis of hydrology and water quality impacts as development of the Area Plan through 2030 concurrent with development in the region (South San Francisco 2011b).

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Stormwater Runoff and Water Quality

Impact 3.8.2 The proposed project, in combination with regional development, would generate stormwater runoff discharges into Colma Creek, but the project's contribution to stormwater runoff and water quality impacts would be **less than cumulatively considerable**.

2011 ECR/C Area Plan Impacts

The ECR/C EIR concluded that cumulative hydrology and water quality impacts would be mitigated by existing regulations and/or Area Plan policies, resulting in less than significant cumulative impacts (South San Francisco 2011b).

Subsequent Project Impacts

The proposed project would result in stormwater flows and urban runoff discharges to Colma Creek. However, as explained in Impact 3.8.1, project flows would not be greater than previously identified and would likely be reduced compared to the approved Area Plan because a lesser amount of impervious surfaces would be created. These reductions would result from implementation of design features required under Provision C.3 and Municipal Code Chapter 14.04, Stormwater Management and Discharge Control, and Area Plan policies. Construction impacts would be site-specific and would be mitigated through the Construction General Permit. The revised project's contribution to stormwater runoff and water quality impacts would be **less than cumulatively considerable**.

Mitigation Measures

None required.

3.8.6 REFERENCES

C/CAG (City/County Association of Governments of San Mateo County). 2014. San Mateo Countywide Water Pollution Prevention Program C.3 Stormwater Technical Guidance.

FEMA (Federal Emergency Management Agency). 2012. Flood Rate Insurance Map, Map Number 06081C0041E. Effective Date October 16, 2012.

NOAA (National Oceanic and Atmospheric Administration). 2017. Sea Level Rise and Coastal Flooding Impacts. https://coast.noaa.gov/slr/.

South San Francisco, City of. 2011a. *El Camino Real/Chestnut Avenue Area Plan – General Plan Amendment.*

———. 2011b. *City of South San Francisco El Camino Real/Chestnut Avenue Area Plan, and associated General Plan Amendment, and Zoning Ordinance Amendment. Final Environmental Impact Report*.

———. 2014. *South San Francisco General Plan*.

3.9 – Noise

This section describes the existing noise environment in the project area and the potential for the project to result in noise impacts exceeding the applicable noise level criteria.

3.9.1 SEIR SUMMARY

A summary of the Community Civic Campus Project impact conclusions related to noise is provided below.

Impact Number	Impact Topic	Impact Significance
3.9.1	Exceed noise standards or result in a permanent or temporary increase in ambient noise levels	Less than significant
3.9.2	Excessive groundborne vibration	Less than significant
3.9.3	Excessive noise exposure (within 2 miles of a public use airport or private airstrip)	Less than significant
3.9.4	Cumulative noise impacts	Less than cumulatively considerable

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.9.4.

3.9.2 EXISTING SETTING

ECR/C EIR AREA PLAN SETTING

The ECR/C EIR describes ambient noise levels at the project site as dominated by transportation sources. Aircraft departures from San Francisco International Airport are the primary source of transportation noise in the city. Other sources of noise include roadway noise. El Camino Real, Chestnut Avenue, and Mission Road are the primary contributors. BART tracks also run parallel to the planning area. Between the South San Francisco station and the San Bruno station (the segment passing the planning area), the tracks are underground and therefore BART does not contribute significantly to noise in the planning area.

PROPOSED PROJECT SETTING

The eastern project site is bordered by Chestnut Avenue and El Camino Real, and the western project site is bordered by El Camino Real, Arroyo Drive, and Camaritas Avenue. The western project site is separated from Westborough Boulevard by a strip mall. The primary noise source at the project site is roadway noise from these streets. Noise levels are also impacted by aircraft departures from San Francisco International Airport.

FUNDAMENTALS OF SOUND AND ENVIRONMENTAL NOISE

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as airborne sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. A typical noise environment consists of a base of steady background noise that is the sum of many distant and indistinguishable noise sources.

Superimposed on this background noise is the sound from individual local sources. These sources can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

The decibel scale is used to measure sound and it uses the hearing threshold (20 micropascals) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

Addition of Decibels

The decibel scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound and twice as loud as a 60 dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions (FTA 2006). Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

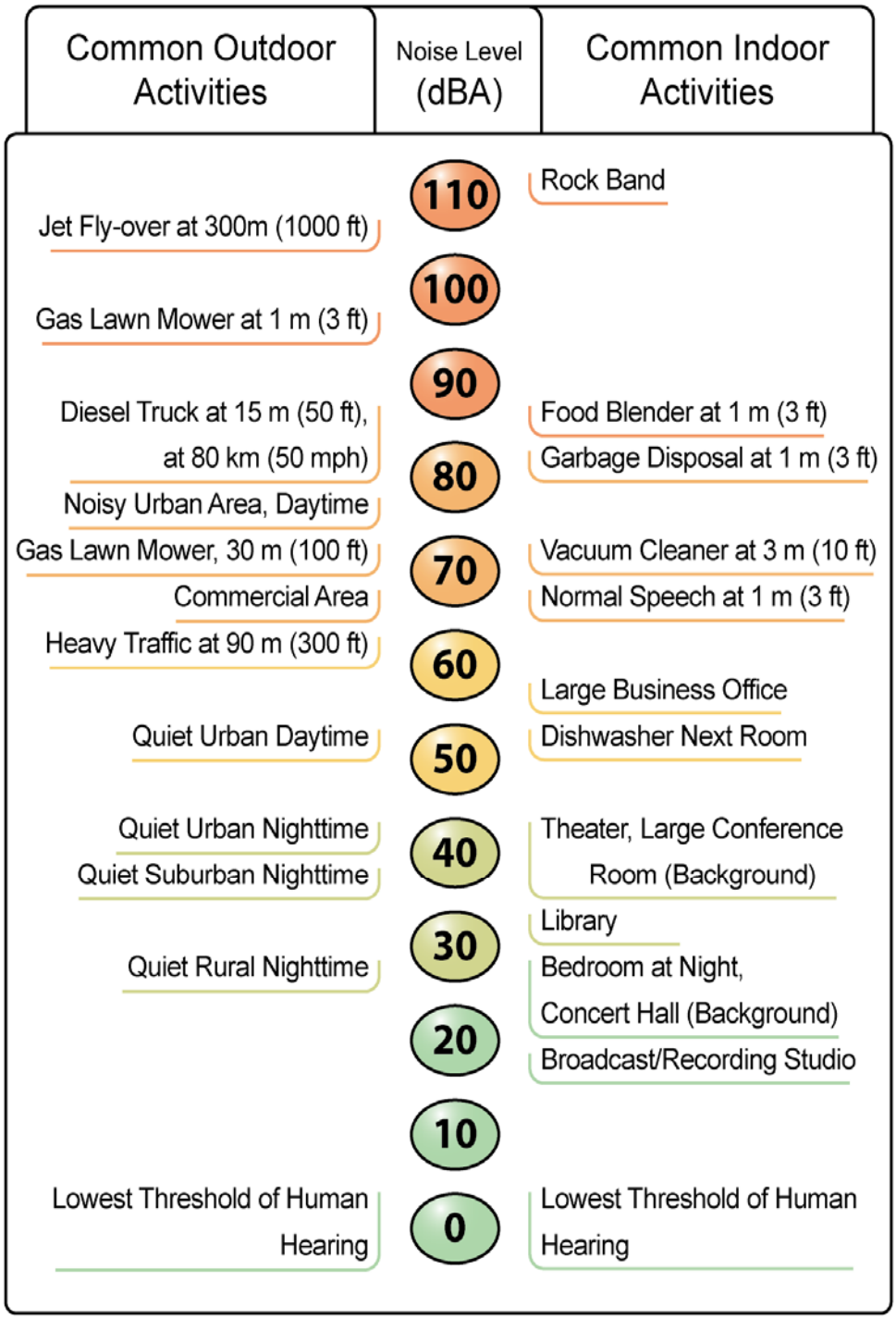
Typical noise levels associated with common noise sources are depicted in **Figure 3.9-1**.

Sound Propagation and Attenuation

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (FHWA 2011). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA (FHWA 2006). The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

FIGURE 3.9 -1
TYPICAL COMMUNITY NOISE LEVELS



Source: Caltrans 2012

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Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined in **Table 3.9-1**.

The A-weighted decibel sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

TABLE 3.9 -1
DEFINITIONS OF ACOUSTICAL TERMS

1	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10 dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Effects of Noise on People

Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even in a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise, but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated by chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) (2017) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. For ground vehicles, a noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance.

FUNDAMENTALS OF ENVIRONMENTAL GROUNDBORNE VIBRATION

Sources of earthborne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration. For the purposes of this analysis, a PPV descriptor with units of inches per second is used to evaluate construction-generated vibration for building damage and human complaints.

Table 3.9-2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

TABLE 3.9 -2
HUMAN REACTION AND DAMAGE TO BUILDINGS FOR CONTINUOUS OR FREQUENT INTERMITTENT VIBRATION LEVELS

Peak Particle Velocity (inches/second)	Human Reaction	Effect on Buildings
0.006–0.019	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.1	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings
0.2	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Architectural damage and possibly minor structural damage

Source: Caltrans 2004

NOISE-SENSITIVE RECEPTORS

Noise-sensitive land uses are those that may be subject to stress and/or interference from excessive noise. Noise-sensitive land uses include public schools, hospitals, and institutional uses such as churches, museums, and private schools. Typically, residential uses are also considered noise-sensitive receptors. Industrial and commercial land uses are generally not considered sensitive to noise.

The project site is located near several sensitive receptors. Residential uses are located approximately 100 feet away from the western project site across Arroyo Drive. Residential uses are located between the eastern project site and Colma Creek, adjacent to Antoinette Lane. The closest school is the Urban Sprouts Preschool, located approximately 600 feet to the northwest of the western project site. R.W Drake Preschool is also located approximately 900 feet to the south of the eastern project site. A hospital, Kaiser Permanente of South San Francisco, is located approximately 1,200 feet north of the project site.

EXISTING CONDITIONS

Existing Roadway Noise Levels

Existing roadway noise levels were calculated for the roadway segments in the project vicinity. This task was accomplished using the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108) (**Appendix NOI**) and traffic volumes from the transportation impact analysis prepared by Kimley-Horn (2017; **Appendix TRA**). The FHWA model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) in the FHWA model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans). The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along roadway segments in the project area are shown in **Table 3.9-3**.

TABLE 3.9-3
EXISTING TRAFFIC NOISE LEVELS

Roadway Segment	Existing Conditions				
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance (feet) from Roadway Centerline to:		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
El Camino Real					
Hickey Boulevard to McLellan Drive	24,084	63.5	172	80	—
McLellan Drive to Arroyo Drive	20,277	62.8	154	71	—
Arroyo Drive to Chestnut Avenue	22,500	63.2	165	76	—
Chestnut Avenue to Orange Avenue	30,951	64.6	204	95	—
Mission Road					
Grand Avenue to Oak Avenue	5,940	54.1	—	—	—
Oak Avenue to Chestnut Avenue	6,966	54.8	45	—	—
Chestnut Avenue/Westborough Boulevard					
Grand Avenue to Mission Road	12,609	57.3	66	—	—
Mission Road to El Camino Real	19,332	63.7	176	82	—
El Camino Real to Junipero Serra Boulevard	24,615	64.7	207	96	—

*Source: Based on traffic data within the transportation impact analysis prepared by Kimley-Horn (2017). Refer to **Appendix NOI** for traffic noise modeling assumptions and results.*

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

As shown, the existing traffic-generated noise level on project-vicinity roadways currently ranges from 54.1 to 64.7 dBA CNEL. As previously described, CNEL is the 24-hour average noise level with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

3.9.3 REGULATORY FRAMEWORK

FEDERAL

US Department of Housing and Urban Development

The US Department of Housing and Urban Development (HUD) environmental criteria and standards are presented in 24 Code of Federal Regulations (CFR) Part 51. New residential construction qualifying for HUD financing proposed in high noise areas (exceeding 65 dBA L_{dn}) must incorporate noise attenuation features to maintain acceptable interior noise levels. A goal of 45 dBA L_{dn} is set for interior noise levels, and attenuation requirements are geared toward achieving that goal. It is assumed that with standard construction any building will provide sufficient attenuation to achieve an interior level of 45 dBA L_{dn} or less if the exterior level is 65 dBA L_{dn} or less. Approvals in a normally unacceptable noise zone (exceeding 65 decibels but not exceeding 75 decibels) require a minimum of 5 decibels of additional noise attenuation for

buildings if the day-night average is greater than 65 decibels but does not exceed 70 decibels, or a minimum of 10 decibels of additional noise attenuation if the day-night average is greater than 70 decibels but does not exceed 75 decibels.

Federal Aviation Act of 1958

The Federal Aviation Act of 1958 created the Federal Aviation Agency. When the agency became a part of the US Department of Transportation in 1967, it adopted its present name of Federal Aviation Administration (FAA). Among other responsibilities, the FAA is in charge of developing and carrying out programs to control aircraft noise and other environmental effects of civil aviation.

Federal Aviation Administration Airport Improvement Program

The Airport Improvement Program (AIP) provides grants to public agencies—and, in some cases, to private owners and entities—for the planning and development of public-use airports that are included in the National Plan of Integrated Airport Systems. When airport owners or sponsors, planning agencies, or other organizations accept funds from FAA-administered airport financial assistance programs, they must agree to certain obligations (or assurances). These obligations require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. The assurances appear either in the application for federal assistance and become part of the final grant offer or in restrictive covenants to property deeds. The duration of these obligations depends on the type of recipient, the useful life of the facility being developed, and other conditions stipulated in the assurances. The City of South San Francisco currently runs an Aircraft Noise Insulation Program with its AIP grant. South San Francisco's assurances include taking "appropriate action, including adoption of zoning laws, to the extent reasonable, to restrict use of land adjacent to or in the immediate vicinity of the Airport to activities and purposes compatible with normal Airport operations, including landing and takeoff of aircraft" and "maintaining zoning and land uses within its jurisdiction that would not reduce the compatibility of the Airport or federally financed noise compatibility measures."

STATE

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act, find 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 which jeopardizes their health or welfare.

California Noise Insulation Standards (CCR Title 24, Part 2, Chapter 2-35)

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for multi-family residential buildings (Title 24, Part 2, California Code of Regulations). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a multi-family residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit

line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or L_{dn}) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or L_{dn}) of at least 45 dBA.

LOCAL

Comprehensive Airport Land Use Compatibility Plan

In San Mateo County, the City/County Association of Governments of San Mateo County (C/CAG) is the designated Airport Land Use Commission. C/CAG (2012) developed and implements the Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport, which establishes the procedures that C/CAG uses in reviewing proposed local agency actions which affect land use decisions in the vicinity of the county's airports. Airport planning boundaries define where height, noise, and safety standards, policies, and criteria are applied to certain proposed land use policy actions.

City of South San Francisco General Plan

The City's General Plan contains Land Use and Noise Elements, among others. These elements include policies to reduce noise impacts in the city. **Table 3.9-4** lists the Comprehensive Airport Land Use Plan noise/land use compatibility standards that have been adopted by the City of South San Francisco.

TABLE 3.9-4
LAND USE CRITERIA FOR NOISE-IMPACTED AREAS

Land Use	CNEL Range	General Land Use Criteria
Residential and other noise sensitive uses (e.g., schools, hospitals, and churches)	Less than 65	Satisfactory; no special insulation requirements
	65 to 70	Development requires analysis of noise reduction requirements and noise 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 noise 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 noise 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 2014

Other relevant policies in the General Plan are listed below.

Chapter 2: Land Use

2-I-22 Require that all future development conforms to the relevant height, aircraft noise, and safety policies and compatibility criteria contained in to the most recently adopted version of the San Mateo County Comprehensive Airport Land Use Plan for the environs of San Francisco International Airport.

Chapter 9: Noise

9-G-I Protect public health and welfare by eliminating or minimizing the effects of existing noise problems, and by preventing increased noise levels in the future.

9-G-2 Continue efforts to incorporate noise considerations into land use planning decisions, and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

9-I-1 Work to adopt a pass-by (single event) noise standard to supplement the current 65 dB CNEL average noise level standard as the basis for aircraft noise abatement programs.

9-I-2 Work to adopt a lower average noise standard for aircraft-based mitigation and land use controls.

9-I-3 Pursue additional funding sources and programs for the noise insulation retrofit of homes not completed before the expiration of the Memorandum of Understanding in 2000.

9-I-4 Ensure that project applications for all new noise-sensitive land uses (plans and specifications), including hospitals and residential units proposed within the CNEL 60 dB to CNEL 69 dB aircraft noise contour include an acoustical study, prepared by a professional acoustic engineer, that specifies the appropriate noise mitigation features to be included in the design and construction of these uses, to achieve an interior noise level of not more than CNEL 45 dB in any habitable room, based on the latest official SFIA noise contours and on-site measurement data.

9-I-5 Ensure that project applications for new noise-sensitive land uses (plans and specifications), including schools and places of assembly, proposed within the CNEL 60 dB to CNEL 69 dB aircraft noise contour include an acoustical study, prepared by a professional acoustic engineer, that specifies the appropriate noise mitigation features to be included in the design and construction of these uses, to achieve an interior noise level of not more than L_{eq} 45 dB for the noisiest hour of normal facility operation.

9-I-6 Require that applicants for new noise-sensitive development in areas subject to noise generators producing noise levels greater than 65 dB CNEL, obtain the services of a professional acoustical engineer to provide a technical analysis and design of mitigation measures.

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.

9-I-8 Require the control of noise at source through site design, building design, landscaping, hours of operation, and other techniques, for new developments deemed to be noise generators.

City of South San Francisco Municipal Code

The South San Francisco Municipal Code also contains provisions to reduce the impact of noise on city residents.

Title 8, Health and Welfare

Section 8.32.050, Special provisions

d. Construction. Construction, alteration, repair or landscape maintenance activities which are authorized by a valid city permit shall be allowed on weekdays between the hours of 8 a.m. and 8 p.m., on Saturdays between the hours of 9 a.m. and 8 p.m., and on Sundays and holidays between the hours of 10 a.m. and 6 p.m., or at such other hours as may be authorized by the permit, if they meet at least one of the following noise limitations:

1. 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.

2. The noise level at any point outside of the property plane of the project shall not exceed 90 dB.

Title 20, Zoning

Division IV, Part I, Section 20.300.010, Performance Standards

E. Noise

1) Noise Attenuation Measures. Noise attenuation measures identified in an acoustic study shall be incorporated into the project to reduce noise impacts to satisfactory levels.

2) Maximum Acceptable Interior Noise Levels. New noise-sensitive uses (e.g. schools, hospitals, churches, and residences) shall incorporate noise attenuation measures to achieve and maintain and interior noise level of CNEL 45 dB.

3) Residential Interior Noise Level Reduction. New dwellings exposed to CNEL above 65 dB shall incorporate the following noise reduction design measures unless alternative designs that achieve and maintain an interior noise level of CNEL 45 dB are incorporated and verified by a Board Certified Acoustical Engineer.

a. All façades must be constructed with substantial weight and insulation;

b. Sound-rated windows providing noise reduction performance similar to that of the façade must be included for habitable rooms;

c. Sound-rated doors or storm doors providing noise reduction performance similar to that of the façade must be included for all exterior entries;

d. Acoustic baffling of vents is required for chimneys, fans, and gable ends;

e. Installation of a mechanical ventilation system affording comfort under closed-window conditions; and

f. Double-stud construction, double doors, and heavy roofs with ceilings of two layers of gypsum board on resilient channels.

4) Vibration. No vibration shall be produced that is transmitted through the ground and is discernible without the aid of instruments by a reasonable person at the lot lines of the site. Vibrations from temporary construction, demolition, and vehicles that enter and leave the subject parcel (e.g., construction equipment, trains, trucks, etc.) are exempt from this standard.

The Airport/Community Roundtable

The Airport/Community Roundtable is a voluntary committee of elected representatives from 45 municipalities near San Francisco International Airport, established in 1981 to address community noise impacts from aircraft operations at the airport. The roundtable monitors a performance-based noise mitigation program implemented by airport staff, interprets community concerns, and attempts to achieve noise mitigation through a cooperative sharing of authority among the aviation industry, the Federal Aviation Administration, airport management, and local government.

Residential Sound Insulation Program

The home insulation program at San Francisco International Airport began in 1983, treating homes, churches, and schools in San Mateo County, Daly City, Millbrae, Pacifica, San Bruno, and South San Francisco. The program is administered directly by the local jurisdictions but funded through a combination of FAA and airport funds distributed through the airport. FAA guidelines set the standard for eligibility for the use of federal funds to insulate residences; noise-sensitive properties within the federally approved CNEL 65 dB annual noise contour are eligible.

3.9.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the CEQA Guidelines Appendix G thresholds of significance. A project is considered to have significant impacts if implementation of the project would result in:

1) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or of applicable standards of other agencies.

2) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

3) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

5) For a project located within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or a public use airport, exposure of people residing or working in the project area to excessive noise levels.

6) For a project in the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

Changes in the CEQA Guidelines

The CEQA Guidelines have not been updated in regard to noise since preparation of the ECR/C EIR.

METHODOLOGY

The following qualitative impact analysis is based on a review of the analysis completed in the project area for the ECR/C EIR. The impact analysis focuses on whether noise generated by the proposed project would have a significant impact on the physical environment and whether the project would expose sensitive receptors to significant noise levels.

PROJECT IMPACTS AND MITIGATION MEASURES

Exceed Noise Standards or Result in a Permanent or Temporary Increase in Ambient Noise Levels (Standards of Significance 1, 3, and 4)

Impact 3.9.1 Noise generation during construction and operations would not exceed standards, nor would it result in an increase in ambient noise levels. This impact would be **less than significant.**

2011 ECR/C Area Plan Impacts

The ECR/C EIR concluded that construction activities associated with the project could substantially increase ambient noise levels at noise-sensitive locations, which could result in potentially significant, but temporary, impacts to sensitive receptors. However, compliance with the limitations on construction activity and associated noise standards established in Title 8 of the South San Francisco Municipal Code, including limiting the hours during which such construction activity may occur, would ensure that construction noise impacts are less than significant (South San Francisco 2011b, p. 3.5-15).

The ECR/C EIR concluded that the plan could increase noise over existing conditions due to traffic volume increases. Noise was calculated to increase by less than 3 dB over existing conditions by 2030. This increase would not be noticeable, and therefore the impact would be less than significant (San Francisco 2011b, p. 3.5-16).

Subsequent Project Impacts

Construction Noise

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than 1 minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Typical noise levels associated with individual construction equipment are listed in **Table 3.9-5.**

TABLE 3.9-5
TYPICAL CONSTRUCTION NOISE LEVELS

Equipment	Typical Noise Level (dBA) at 50 Feet from Source	
	L_{max}	L_{eq}
Air Compressor	80	76
Backhoe/Front End Loader	80	76
Compactor (ground)	80	73
Concrete Mixer Truck	85	81
Concrete Mixer (vibratory)	80	73
Concrete Pump Truck	82	75
Concrete Saw	90	83
Crane	85	77
Dozer/Grader/Excavator/Scraper	85	81
Drill Rig Truck	84	77
Generator	82	79
Gradall	85	81
Hydraulic Break Ram	90	80
Jackhammer	85	78
Impact Hammer/Hoe Ram (mounted)	90	83
Pavement Scarifier/Roller	85	78
Paver	85	82
Pneumatic Tools	85	82
Pumps	77	74
Truck (dump/flat bed)	84	80

Source: FTA 2006

In conformance with Section 8.32.050 of the City's Municipal Code, construction activities would be restricted to the hours between 8 a.m. and 8 p.m. on weekdays, between 9 a.m. and 8 p.m. on Saturdays, and between 10 a.m. and 6 p.m. on Sundays and holidays. Additionally, a valid City permit may authorize construction to occur at other hours if it meets certain noise limitations defined in the Municipal Code section.

As shown in **Table 3.9-5**, the loudest piece of equipment will reach maximum noise levels of 90 dBA at 50 feet from the source. Since construction noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor, the loudest piece of equipment will reach maximum noise levels of 84 dBA at 25 feet from the source. Therefore, no individual piece of equipment will produce a noise level exceeding 90 dB at a distance of 25 feet. Since project construction would not exceed City standards, there would be no substantial temporary or periodic increase in ambient noise levels. Therefore, the revised project's impact would continue to be **less than significant.**

Operational Noise

Fire Station

A portion of the existing Municipal Services Building would be demolished to accommodate the construction of a new 7,250-square-foot fire station, which would be located in the site's west corner. Interior spaces would include a drive-through bay for fire engines, a turnout and decontamination area, office space, and living quarters. The new fire station would replace the existing fire station in the Municipal Services Building and would have similar hours. Therefore, there would not be a significant increase in noise levels over existing conditions and the revised project would continue to have a **less than significant** impact on ambient noise levels due to fire station operations.

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. The Future without Project and Future with Project scenarios are compared in **Table 3.9-6**. As depicted in **Table 3.9-6**, under the Future without Project scenario, noise levels would range from approximately 55.7 dBA to 66.3 dBA, with the highest noise levels occurring along Chestnut Avenue/Westborough Boulevard (from El Camino Real to Junipero Serra Boulevard). The Future with Project scenario noise levels would range from approximately 56.4 dBA to 66.4 dBA, with the highest noise levels occurring along the same roadway segment.

TABLE 3.9-6
FUTURE PROJECT TRAFFIC NOISE LEVELS

Roadway Segment	Future without Project					Future with Project					Difference in dBA @ 100 Feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance (feet) from Roadway Centerline to:			ADT	dBA @ 100 Feet from Roadway Centerline	Distance (feet) from Roadway Centerline to:			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
El Camino Real											
Hickey Blvd. to McLellan Dr	34,038	65.0	217	101	—	37,422	65.5	231	107	—	0.5
McLellan Dr to Arroyo Dr	28,440	64.3	193	89	—	31,221	64.7	205	95	—	0.4
Arroyo Dr to Chestnut Ave	32,310	64.8	210	97	—	34,308	65.1	218	101	—	0.3
Chestnut Ave to Orange Ave	43,740	66.1	257	119	—	45,441	66.3	263	122	—	0.2
Mission Road											
Grand Ave to Oak Ave	8,586	55.7	51	—	—	10,260	56.4	58	—	—	0.7
Oak Ave to Chestnut Ave	9,207	56.0	54	—	—	10,440	56.5	59	—	—	0.5
Chestnut Avenue/Westborough Boulevard											
Grand Ave to Mission Rd	17,820	58.8	84	—	—	18,144	58.9	85	—	—	0.1
Mission Rd to El Camino Real	27,315	65.2	222	103	48	29,322	65.5	233	108	50	0.3
El Camino Real to Junipero Serra Blvd.	34,785	66.3	261	121	56	36,198	66.4	268	124	58	0.1

*Source: Based on traffic data in the transportation impact analysis prepared by Kimley-Horn (2017). Refer to **Appendix NOI** for traffic noise modeling assumptions and results.*
Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

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Library

Per the City's General Plan, development requires analysis of noise reduction requirements and noise insulation as needed for residential and other noise-sensitive uses (e.g., schools, hospitals, and churches) when the CNEL is between 65 and 70 dBA. Since the proposed library will be located at Chestnut Avenue and El Camino Real (64.8 to 66.3 dBA), it is in an area where the CNEL is between 65 and 70 dBA. However, with closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer building. Therefore, the library's interior noise levels will be around 40–45 dBA. This noise level is in conformance with Municipal Code Section 20.300.010, which requires that new noise-sensitive uses (e.g., schools, hospitals, churches, and residences) incorporate noise attenuation measures to achieve and maintain and interior noise level of CNEL 45 dB. Therefore, the revised project would continue to have a **less than significant** impact.

Traffic

As shown in **Table 3.9-6**, increases in vehicular traffic would result in a maximum increase of 0.7 dBA in the project area. To determine whether there would be a substantial permanent increase in ambient noise levels, this analysis uses a 3 dBA increase as a threshold, which is considered a just-perceivable difference. Since the proposed project would not increase noise levels above 3 dBA along the roadway segments analyzed, the revised project would continue to have a **less than significant** impact.

Parking

The project would accommodate parking on-site. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. Therefore, parking lot noise associated with the proposed project would be contained. The revised project would have **no impact** due to parking noise.

Mitigation Measures

None required.

Exposure of Persons to or Generation of Excessive Groundborne Vibration or Groundborne Noise Levels (Standards of Significance 2)

Impact 3.9.2 Project construction would not expose persons to groundborne vibration or noise levels. This impact would be **less than significant.**

2011 ECR/C Area Plan Impacts

Development under the proposed Area Plan would adhere to Municipal Code Section 20.300.010, which establishes performance standards regarding groundborne vibrations. No new industrial activities are anticipated and there are no railroad activities in the Planning Area, though vibration could be created through construction. The ECR/C EIR found that subsequent CEQA analysis and documentation for individual projects would have project -specific data and will be required to mitigate any potential construction/operations-related vibration, which would reduce noise impacts to a less than significant level (South San Francisco 2011b, p. 3.5-19).

Subsequent Project Impacts

Project construction would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. As stated in Municipal Code Section 20.300.010, vibrations from temporary construction, demolition, and vehicles that enter and leave the parcel under construction are exempt from vibration standards. Once operational, the project would not be a source of groundborne vibration. This impact would continue to be **less than significant.**

Mitigation Measures

None required.

Within 2 Miles of a Public Airport or Private Airstrip or Land Use Plan Area, Exposure of Persons to Excessive Noise (Standards of Significance 5 and 6)

Impact 3.9.3 The project is not located near a private airstrip and is outside any noise impact zones for San Francisco International Airport. The project would have **no impact.**

2011 ECR/C Area Plan impacts

Under the San Francisco International Comprehensive Airport Land Use Plan, the 2001 Noise Exposure Map (NEM) is the most recent federally accepted NEM and is the noise contour map that C/CAG uses in making its determination of the consistency of a proposed local agency land use policy action with the plan. A small portion of the Planning Area in the southwest is located between the 2001 CNEL 60 dB and CNEL 65 dB noise contours (i.e., noise levels are between CNEL 60 dB and CNEL 65 dB). No noise/land use compatibility standards apply within these noise contours ((South San Francisco 2011b, p. 3.5-10). Therefore, plan implementation would have no impact.

Subsequent Project Impacts

As analyzed in the ECR/C EIR, there are no private airports in the vicinity of the project site. The project site is located approximately 2.6 miles northwest of San Francisco International Airport. A review of the Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport (C/CAG 2012) shows the project site located outside of any noise impact zones. Therefore, the revised project would continue to have **no impact.**

Mitigation Measures

None required.

3.9.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The geographic extent of the cumulative setting for noise consists of the project site and vicinity. Ambient noise levels in the project area are primarily affected by vehicle traffic on nearby area roadways. As a result, the primary factor for cumulative noise impact analysis is the consideration of future noise typically associated with vehicle traffic.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Noise Impacts

Impact 3.9.4 Project operation would not result in a substantial contribution to cumulative noise levels. This impact would be considered **less than cumulatively considerable.**

2011 ECR/C Area Plan Impacts

The ECR/C Area Plan concluded that by its nature, the noise analysis presented in the noise chapter (and summarized above) represents a cumulative analysis of noise conditions through 2030. The ECR/C EIR found the plans contribution to be less than cumulative considerable because the increase in noise elves associated with the plan was less than 3 dB compared to existing conditions (South San Francisco 2011b, p. 5-5).

Subsequent Project Impacts

Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to buildout of the proposed project and other projects in the vicinity. A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the cumulative with project condition to existing conditions. This comparison accounts for the traffic noise increase generated by the project combined with the traffic noise increase generated by projects in the cumulative project list. The following criteria were used to evaluate the combined effect of the cumulative noise increase.

- Combined Effect. The cumulative with project noise level (Future with Project) would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project.
- Incremental Effects. The Future with Project causes a 1.0 dBA increase in noise over the Future without Project noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and it reduces as distance from the source increases. Consequently, only the proposed project and growth due to occur in the project site's general vicinity would contribute to cumulative noise impacts. **Table 3.9-7** lists the traffic noise effects along roadway segments in the project vicinity for existing, Future without Project, and Future with Project conditions, including incremental and net cumulative impacts.

TABLE 3.9-7
CUMULATIVE NOISE SCENARIO

Roadway Segment	Existing	Future without Project	Future with Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference in dBA Between Existing and Future with Project	Difference in dBA Between Future without Project and Future with Project	
El Camino Real						
Hickey Blvd to McLellan Dr	63.5	65.0	65.5	2	0.5	No
McLellan Dr to Arroyo Dr	62.8	64.3	64.7	1.9	0.4	No
Arroyo Dr to Chestnut Ave	63.2	64.8	65.1	1.9	0.3	No
Chestnut Ave to Orange Ave	64.6	66.1	66.3	1.7	0.2	No
Mission Road						
Grand Ave to Oak Ave	54.1	55.7	56.4	2.3	0.7	No
Oak Ave to Chestnut Ave	54.8	56.0	56.5	1.7	0.5	No
Chestnut Avenue/Westborough Boulevard						
Grand Ave to Mission Rd	57.3	58.8	58.9	1.6	0.1	
Mission Rd to El Camino Real	63.7	65.2	65.5	1.8	0.3	No
El Camino Real to Junipero Serra Blvd	64.7	66.3	66.4	1.7	0.1	No

Source: Noise modeling is based on traffic data within the transportation impact analysis prepared by Kimley-Horn (2017). Refer to ***Appendix NOI*** *for traffic noise modeling assumptions and results.*
Notes: ADT = average daily traffic; dBA = A-weighted decibels; CNEL = community noise equivalent level

As indicated in **Table 3.9-7**, the proposed project would not result in long-term mobile noise impacts based on project-generated traffic as well as cumulative and incremental noise levels. None of the roadway segments would exceed both the Incremental Effects and Combined Effects criteria; thus, none of the roadway segments would be significantly impacted. Therefore, the revised project in combination with cumulative background traffic noise levels would continue to result in a **less than cumulatively considerable** noise impact.

Mitigation Measures

None required.

3.9.6 REFERENCES

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3.10 – TRANSPORTATION AND CIRCULATION

This section evaluates project traffic impacts on intersections, freeway facilities, bicycle, pedestrian, and transit facilities, vehicle miles traveled, and design hazards in the project area. A transportation impact analysis (TIA) was prepared for the project by Kimley-Horn and Associates (2017) and is included in **Appendix TRA** in this Draft SEIR. This section summarizes the analysis in the Kimley Horn report.

Impacts to the surrounding transportation system as a result of the project were evaluated in accordance with the standards set forth by the City of South San Francisco and the California Department of Transportation (Caltrans). Baseline conditions are based on existing conditions.

3.10.1 SEIR SUMMARY TABLE

A summary of the project impacts on transportation and circulation is provided below.

Impact Number	Impact Topic	Impact Significance
3.10.1	Cause a substantial increase in traffic load, or conflict with an applicable congestion management program	Less than significant with mitigation
3.10.2	Result in a change in air traffic patterns	Less than significant
3.10.3	Increase hazards due to a design feature	Less than significant
3.10.4	Result in inadequate emergency access	Less than significant
3.10.5	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	Less than significant
3.10.6	Cumulative traffic impacts	Less than cumulatively considerable with mitigation

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.10.4.

3.10.2 EXISTING SETTING

ECR/C AREA PLAN SETTING

The ECR/C Area Plan consists of 98 acres of developed land along El Camino Real in South San Francisco. Regional access to the planning area is via several regional highways, including Interstate 280 (I-280), Interstate 380 (I-380), and US Highway 101 (US 101). Local access to the planning area is via arterials, collectors, and local streets in South San Francisco. El Camino Real (State Route [SR] 82), Mission Road, Westborough Boulevard/Chestnut Avenue, Arroyo Drive, Camaritas Avenue, and Oak Avenue are the major streets providing access to and within the planning area.

Transit services in the planning area are provided by the Bay Area Rapid Transit (BART) system, the San Mateo County Transit District (SamTrans), and Caltrain. BART provides heavy rail access both to the south and north of the city. SamTrans runs fixed-route buses. Caltrain is a commuter rail system connecting Gilroy to San Francisco, with a station located approximately 2 miles from the planning area.

PROJECT SITE SETTING

The circulation system serving South San Francisco consists of roadways, bicycle and pedestrian facilities, and the public transit system. Major transportation facilities, travel characteristics, and existing travel conditions in the surrounding area are described below. This information is summarized from the project-specific 2017 transportation impact analysis prepared by Kimley Horn (**Appendix TRA**).

EXISTING ROADWAY NETWORK

Regional access to the project site is via several regional highways, including I-280, I-380, and US 101. Local access to the site is via El Camino Real, Mission Road, Westborough Boulevard/Chestnut Avenue, Arroyo Drive, Camaritas Avenue, and Oak Avenue. The roads are classified as follows:

- El Camino Real is a six-lane major arterial with a raised, landscaped median.
- Mission Road is a four-lane minor arterial with no median or center turn lane, except from Oak Avenue to Chestnut Avenue.
- Westborough Boulevard/Chestnut Avenue is a four-lane major arterial.
- Arroyo Drive is a two-lane collector.
- Camaritas Avenue is classified as an "other street" in the City's General Plan and is four lanes between Arroyo Drive and Westborough Road.
- Oak Avenue is a two-lane collector.

EXISTING PEDESTRIAN NETWORK

Most roads near the project site have Americans with Disabilities Act compliant pedestrian sidewalks, and most signalized intersections have pedestrian crossings.

The Centennial Way Trail is a multi-use bicycle and pedestrian path that passes through South San Francisco and near the project site. There are several gaps in the sidewalk network, with the largest on the west side of El Camino Real from the BART access road to north of Arroyo Drive. Mission Road also lacks a sidewalk on the west side from Oak Avenue to Grand Avenue.

EXISTING BICYCLE NETWORK

Bikeway planning and design in California typically rely on guidelines and design standards established by Caltrans (2015) in the *Highway Design Manual* (Chapter 1000: Bikeway Planning and Design). The manual describes three distinct types of bikeway facilities, as listed below.

- Bike path (Class I) – A completely separate right-of-way designed for the exclusive use of bicycle and pedestrian traffic with cross-flow minimized.
- Bike lane (Class II) – A striped lane for one-way bike travel on a street or highway, typically including signs placed along the street segment.
- Bike route (Class III) – Provides a shared use with pedestrian or motor vehicle traffic. Typically, these facilities are city streets with signage designating the segment as a bike route without additional striping or facilities.

The following Class I bicycle path is located in the vicinity of the project site:

- Centennial Way Trail between South San Francisco BART station and San Bruno BART station

The following Class II bicycle lanes are located in the vicinity of the project site:

- Westborough Boulevard between I-280 and Camaritas Avenue/West Orange Avenue
- Grand Avenue between Chestnut Avenue and Spruce Avenue
- Mission Road north of McLellan Drive

The following Class III bicycle routes are located in the vicinity of the project site:

- Camaritas Avenue-West Orange Avenue south of Arroyo Drive
- Commercial Avenue between Chestnut Avenue and Linden Avenue
- Del Monte Avenue between Bryon Drive and Arroyo Drive
- El Camino Real throughout its extent within South San Francisco
- Mission Road between McLellan Drive and Sequoia Avenue
- Westborough Boulevard-Chestnut Avenue between Camaritas Avenue/West Orange Avenue and Hillside Boulevard
- Grand Avenue between Mission Road and Chestnut Avenue
- Alta Loma Drive between San Felipe Avenue and Arroyo Drive (proposed)
- San Felipe Avenue west of Alta Loma Drive (proposed)

EXISTING TRANSIT NETWORK

Public transit service in South San Francisco is provided by SamTrans, BART, and Caltrain. SamTrans operates fixed-route buses, community-based shuttles, paratransit, and BART commuter shuttles in San Mateo County and South San Francisco. The routes and services provided by SamTrans are listed below.

- **Route 28** travels between the Serramonte Center in Daly City and South San Francisco High School. Along the route, it connects with regional shopping centers in Daly City and South San Francisco. The route operates with 10-minute headways during the AM period and with 6-minute headways during the PM period except for Wednesdays. The service is only provided on school days. In the project vicinity, it travels on Westborough Boulevard and then heads south on El Camino Real.

- **Route 35** provides community service from the intersection of Warwick Street and Christen Avenue to El Camino High School, located near the South San Francisco BART station. It operates with 10- to 40–minute headways during the AM peak hours. It also operates with 6-minute headways during the PM period. This service only operates three

AM loops and three PM loops, and only on school days. In the project vicinity, it travels on El Camino Real between Hickey Boulevard and the BART station.

- **Route 37** travels through South San Francisco from the intersection of Grove Avenue and Hillside Boulevard to Alta Loma Middle School. It provides service during school start and dismissal times at the school. The service is only provided on school days, operating one morning bus from 7:59 to 8:20 AM and one afternoon bus from 3:35 to 3:59 PM. In the project vicinity, it travels on El Camino Real between Arroyo Drive and Orange Avenue.

- **Route 39** travels through South San Francisco from the intersection of Hazelwood Drive and Northwood Drive to Alta Loma Middle School. It provides service during school start and dismissal times at the school. The service is only provided on school days, operating one morning bus from 8:16 to 8:32 AM and one afternoon bus from 3:25 to 3:40 PM. In the project vicinity, it travels on El Camino Real between Arroyo Drive and Orange Avenue.

- **Route 122** travels between the Stonestown Shopping Center in San Francisco and the South San Francisco BART station, providing service to the Colma BART station, San Francisco State University, and many retail and medical centers along the way. On weekdays, it operates with an approximate 20-minute headway during the peak hours and an approximate 30-minute headway for the rest of the day, from 6:00 AM to 10:00 PM. It operates on weekends and holidays with 30-minute headways. In the project vicinity, it travels on El Camino Real south of the South San Francisco BART station and then travels west on Arroyo Drive.

- **Route 131** travels between the Serramonte Center in Daly City and the intersection of Airport Boulevard and Linden Avenue in South San Francisco. It also provides service to the South San Francisco BART station. On weekdays, it operates with 15- to 20-minute headways during the peak hours and with approximately 15- to 30-minute headways for the rest of the day, from 5:05 AM to 10:56 PM. It operates on Saturdays with 30-minute headways and on Sundays and holidays with 60-minute headways. In the project vicinity, it travels on El Camino Real, Mission Road, and Grand Avenue.

- **Route ECR** travels between the Daly City BART station and the Palo Alto Transit Center. Along the route, it connects with the Daly City, Colma, South San Francisco, San Bruno, and Millbrae BART stations, the Millbrae and Redwood City Transit Center, and various Caltrain stations. On weekdays, it operates with approximately 15-minute headways during peak hours and 30-minute headways for the rest of the day from 4:00 AM to 2:00 AM. On the weekends, it operates with 15- to 30-minute headways from 5:00 AM to 2:00 AM.

- **The South City Shuttle** travels in a clockwise loop around South San Francisco. Points on the route include the South San Francisco BART station, the city library, and the city's community learning center. On weekdays, it operates on approximately 45-minute headways from 7:15 AM to 6:39 PM.

- **Paratransit Service:** Paratransit service is for people with disabilities who cannot independently use regular SamTrans bus service. Trips must be arranged in advance.

Caltrain is a commuter rail system connecting Gilroy to San Francisco, with a connection to BART at the Millbrae BART station. BART also runs in the city and connects South San Francisco to other Peninsula cities, San Francisco, and East Bay cities such as Oakland, Fremont, Berkeley, and Walnut Creek. The South San Francisco BART station is located approximately 0.5 mile to the northwest of the project site.

AVIATION

The project site is located approximately 2.6 miles northwest of San Francisco International Airport. According to the Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport, the project site is located in Airport Influence Area B (C/CAG 2012). The Airport Influence Area has two parts: Area A and Area B. Area A encompasses all of San Mateo County, while Area B is based on a combination of the boundaries of the noise and safety zones and the airplane approach and departure surfaces.

For areas in Area B, the Airport Land Use Commission has the duty to review proposed land use policy actions, such as general plans, specific plans, rezoning proposals, and land development proposals. In addition, for areas in Area A (which includes Area B), property for sale or lease must disclose that the property is in the vicinity of an airport and within the airport influence area.

PUBLIC SAFETY CONSIDERATIONS

Efficient operation of city streets helps to reduce response times for emergency responders, including South San Francisco Police Department and Fire Department personnel. Emergency access to the western project site is available via El Camino Real and Camaritas Avenue. Emergency access to the eastern project site is available via Chestnut Avenue and Antoinette Lane.

STUDY SCENARIOS

The transportation impact analysis analyzed operations at 12 study intersections and 4 highway segments. These were the same intersections and highway segments analyzed in the original ECR/C EIR. They were evaluated during the weekday morning (AM) and weekday evening (PM) peak hours for the following scenarios as presented in the TIA.

- Scenario 1 – Existing conditions: Existing peak-hour traffic volumes on the existing roadway network. Existing traffic volumes obtained from weekday peak-hour traffic counts collected in 2016.

- Scenario 2 – Existing plus project conditions: Existing traffic volumes obtained from counts plus additional vehicular trips generated by the land uses proposed in the area.

- Scenario 3 – 2030 cumulative conditions – no project: Estimated traffic volumes for the year 2030 based on growth factors derived from the City/County Association of Governments of San Mateo County (C/CAG) travel forecasting model.

- Scenario 4 – 2030 cumulative conditions plus project 2030: No project volumes plus additional vehicular trips generated by the land uses proposed in the area plan.

Baseline conditions (existing and cumulative no project) establish background conditions for the evaluated of the project in the future.

EXISTING CONDITIONS TRAFFIC CIRCULATION

Level of Service

The project impacts on traffic were analyzed by modeling the effects of project traffic on level of service (LOS). LOS is a qualitative term that represents the conditions a driver will experience while traveling on a particular street or at an intersection during a specific time interval. Level of service is described using a series of letter designations ranging from A to F; LOS A represents very little congestion and LOS F represents long delays and congestion. **Table 3.10-1** describes the qualitative attributes of each level of service as well as the control delay ranges for signalized and unsignalized intersections.

TABLE 3.10-1
SIGNALIZED AND UNSIGNALIZED INTERSECTION LOS DEFINITIONS

LOS	Description	Signalized Intersection Control Delay (seconds/vehicle)	Unsignalized Intersection Control Delay (seconds/vehicle)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream. At signalized intersections, turning movements are easily made and all queues clear in a single signal cycle.	Up to10.0	Up to10.0
B	Stable traffic. Traffic flows smoothly with few delays. An occasional approach phase is fully utilized. Drivers begin to feel somewhat restricted within platoons of vehicles.	10.1 to 20.0	10.1 to 15.0
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays. Major approach phases fully utilized. Backups may develop behind turning vehicles.	20.1 to 35.0	15.1 to 25.0
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours. Queues may develop but dissipate rapidly, without excessive delays.	35.1 to 55.0	25.1 to 35.0
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	55.1 to 80.0	35.1 to 50.0
F	Forced or breakdown flow that causes reduced capacity. Traffic demand exceeds the capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	Greater than 80.0	Greater than 50.0

Source: Transportation Research Board 2010
Note: LOS is measured as the average control delay in seconds per vehicle. Control delay is the portion of the total delay experienced by drivers at intersections that is attributable to traffic signal operation. Similarly, unsignalized intersections measure the effectiveness of an unsignalized intersection average control delay. However, the delay is reported for the worst-case approach of the intersections.

Freeway level of service is measured differently. Performance measures such as speed, travel time, freedom to maneuver, traffic interruptions, and comfort and convenience are used to describe freeway operation conditions. These measures are related to the density of traffic and volume to capacity ratio. LOS is a quality measure describing operation conditions in the stream of traffic during peak hours. LOS is designated from A to F, with LOS A being the best operating conditions and LOS F the worst. Level of service for the freeway segments is based on the volume-to-capacity ratio, assuming one freeway travel lane has a capacity of 2,200 vehicles per

hour. **Table 3.10-2** describes the relationship between freeway LOS, density, and volume-to-capacity ratio.

TABLE 3.10-2
FREEWAY LOS DEFINITIONS

LOS	Density Range (pc/mi/ln)	Volume-to-Capacity Ratio
A	Up to11.0	0.30
B	11.1 to 18	0.50
C	18.1 to 26.0	0.71
D	26.1 to 35.0	0.89
E	35.1 to 45.0	1.00
F	Greater than 45.0.0	Greater than 1.00

Note: pc/mi/ln = passenger cars per mile per lane

Vehicle Circulation

The study analyzed the project's impacts at the 12 intersections and 4 freeway segments listed below. These are the same intersections and freeway segments that were analyzed in the ECR/C EIR. Intersection locations are shown in **Figure 3.10-1, Study Intersections**. The existing lane configurations and traffic controls at the study intersections are shown in **Figure 3.10-2, TIA Study Intersections Lane Configurations**.

Intersections

1) El Camino Real/Hickey Boulevard
2) El Camino Real/McLellan Boulevard
3) El Camino Real/Arroyo Drive/Oak Extension
4) El Camino Real/Chestnut Avenue
5) El Camino Real/Orange Avenue
6) Mission Road/Grand Avenue
7) Chestnut Avenue/Grand Avenue
8) Mission Road/Oak Avenue
9) Mission Road/Chestnut Avenue
10) Junipero Serra Boulevard/Arroyo Drive
11) Westborough Boulevard/I-280 Southbound (SB) Off-Ramp
12) Westborough Boulevard/I-280 Northbound (NB) On-Ramp/Junipero Serra Boulevard

Freeway Segments

1) I-280 NB from Avalon to Westborough
2) I-280 NB from Westborough to Hickey
3) I-280 SB from Hickey to Westborough
4) I-280 SB from Westborough to Avalon

Existing Intersection Levels of Service

The results of the intersection level of service analysis indicate that the following four study intersections currently operate at unacceptable levels during at least one of the peak hours. The City of South San Francisco requires that LOS D be maintained for intersections during the AM and PM peak periods. If an intersection falls below LOS D, it is at an unacceptable level.

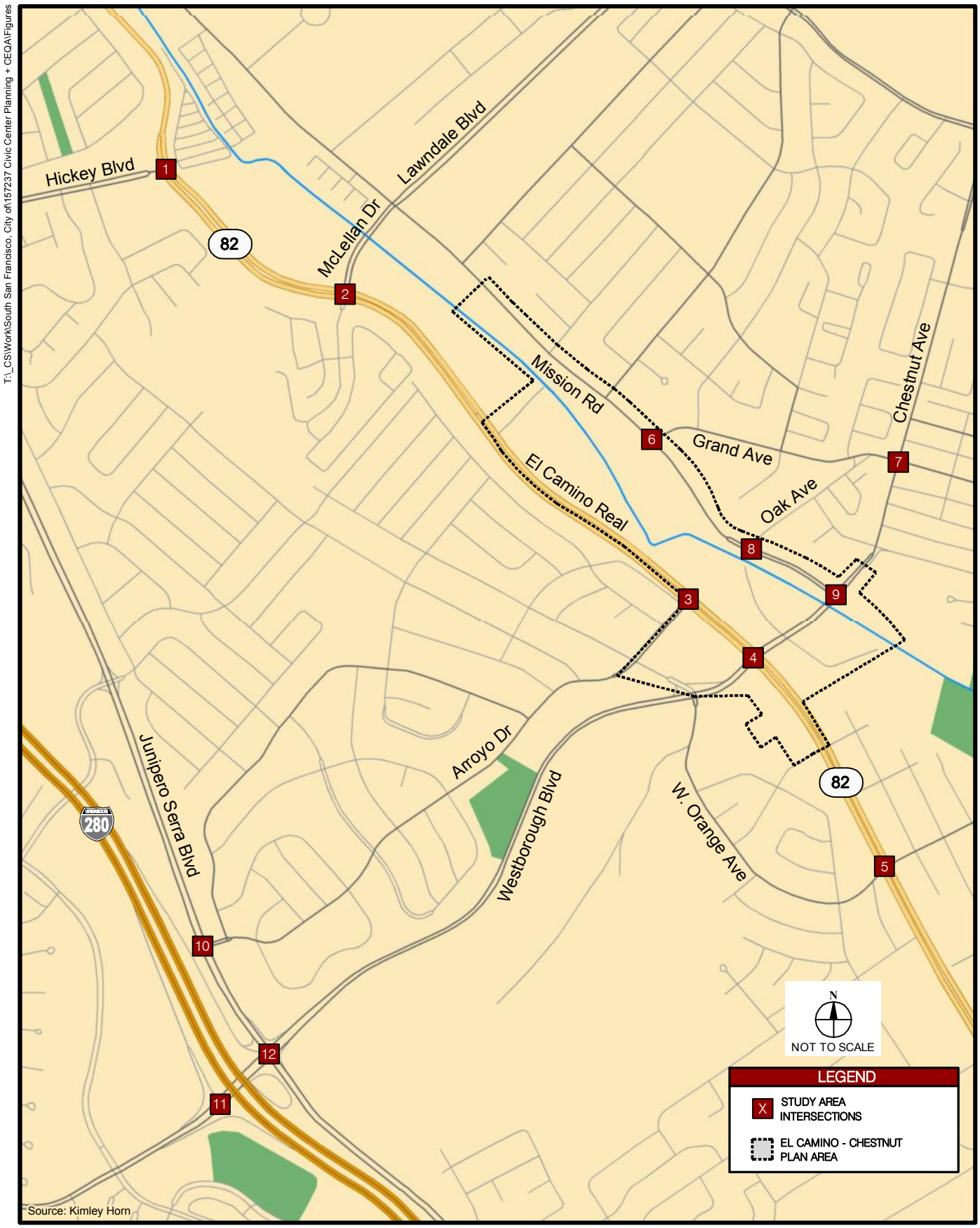
- El Camino Real/Hickey Boulevard has LOS E during the PM peak period
- El Camino Real/Chestnut Avenue has LOS E during the AM peak period
- Junipero Serra Boulevard/Arroyo Drive (Worst Approach) has LOS F during the AM peak period
- Westborough Boulevard/I-280 NB On Ramp/Junipero Serra Boulevard has LOS F during the AM peak period

Table 3.10-3 summarizes the level of service at the study intersections. Of the 12 intersections, 9 are signalized, 2 are side-street stop-controlled (SSSC), and 1 is all-way stop-controlled (AWSC).

TABLE 3.10-3
EXISTING INTERSECTION LOS SUMMARY

Intersection	LOS Standard	Control	Existing (2016)			
			AM Peak		PM Peak	
			LOS	Delay	LOS	Delay
1. El Camino Real/Hickey Boulevard	D	Signal	D	53.4	**E**	**58.9**
2. El Camino Real/McLellan Boulevard	D	Signal	C	31.8	D	35.0
3. El Camino Real/Arroyo Drive/Oak Extension	D	Signal	C	25.5	C	20.5
4. El Camino Real/Chestnut Avenue	D	Signal	**E**	**56.7**	D	52.4
5. El Camino Real/Orange Avenue	D	Signal	D	36.8	D	40.7
6. Mission Road/Grand Avenue	D	AWSC	B	12.9	B	13.0
7. Chestnut Avenue/Grand Avenue	D	Signal	C	32.2	C	31.2
8. Mission Road/Oak Avenue	D	SSSC	A	2.3	A	1.0
Worst Approach			B	14.9	B	11.8
9. Mission Road/Chestnut Avenue	D	Signal	C	26.7	C	26.4
10. Junipero Serra Boulevard/Arroyo Drive (Worst Approach)	D	SSSC	B	11.5	A	3.8
Worst Approach			**F**	**99.7**	**E**	**39.2**
11. Westborough Boulevard/I-280 SB Off-Ramp	D	Signal	A	5.3	A	9.8
12. Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard	D	Signal	**F**	**85.6**	D	54.9

Source: Kimley-Horn 2017
*Note: Intersections that are operating below acceptable levels are shown in **bold**.*



N

Not To Scale

FIGURE 3.10-1
Study Intersections

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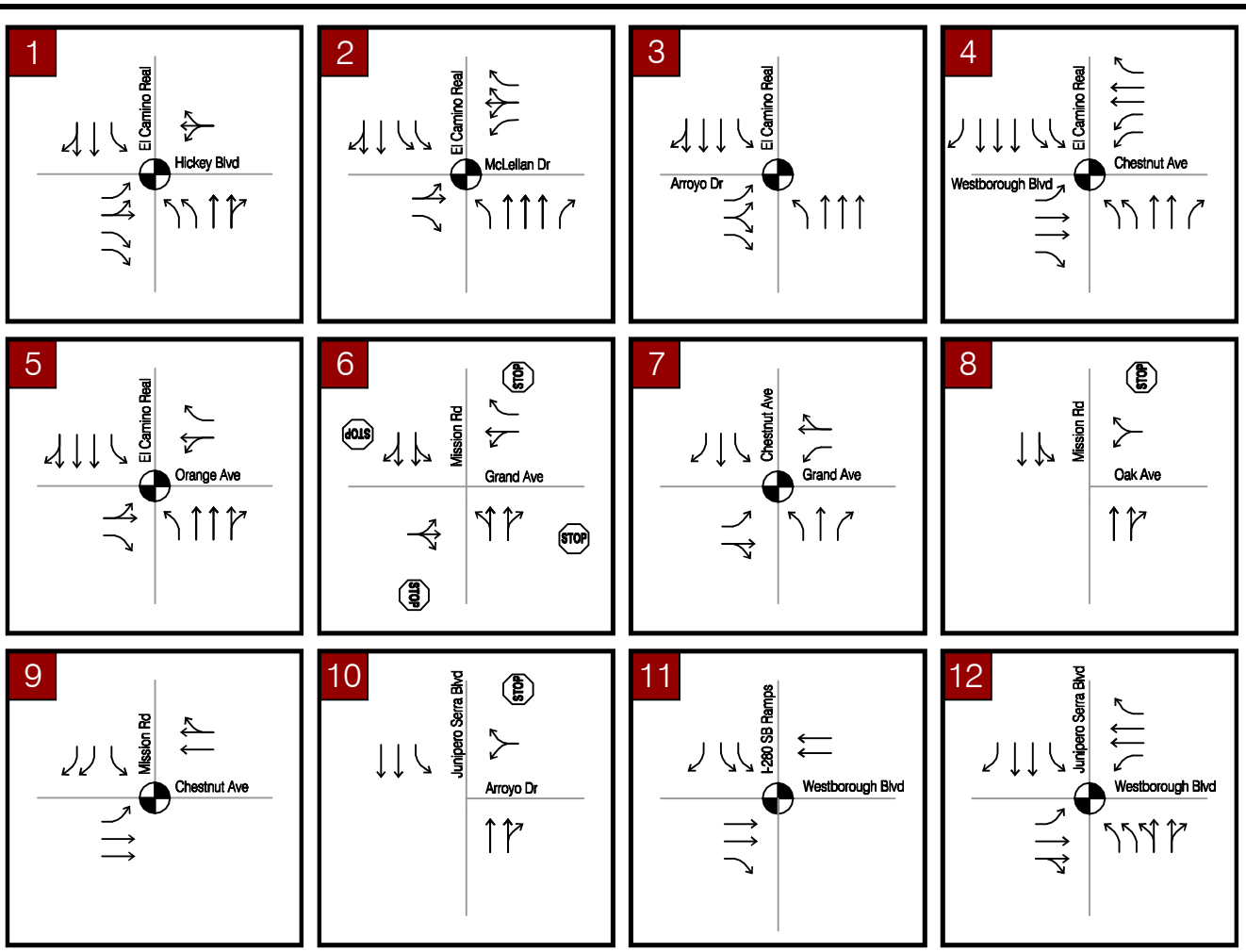
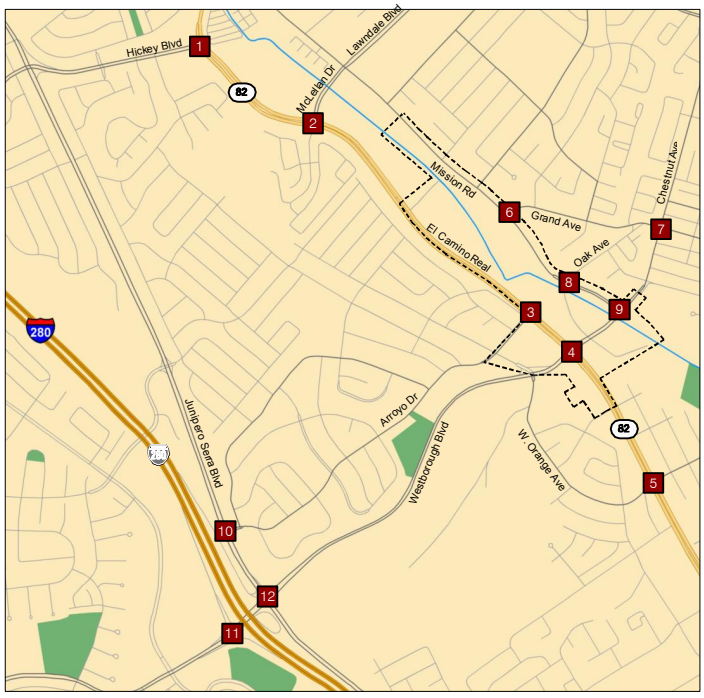
T:_CS\Work\South San Francisco, City of\157237 Civic Center Planning + CEQA\Figures





LEGEND

- X — STUDY AREA INTERSECTIONS
- EL CAMINO - CHESTNUT PLAN AREA
- TRAFFIC SIGNAL
- STOP — STOP SIGN
- XX' — STORAGE LENGTH

Source: Kimley Horn

Not To Scale

FIGURE 3.10-2
TIA Study Intersections Lane Configurations

Michael Baker INTERNATIONAL

Existing Highway Segment Levels of Service

The 2000 Highway Capacity Manual (HCM) defines six level of service grades for each type of facility. Level of service is designated from A to F, with LOS A representing the best operating conditions and LOS F the worst. For this study, the level of service for a basic freeway segment is based on the volume-to-capacity ratio, assuming that one freeway travel lane has a capacity of 2,200 vehicles per hour. The San Mateo County Congestion Management Program (CMP) set the LOS standards for freeways in the county, which includes the sections analyzed in this study. The CMP sets the level of service standard in the area at LOS D. Using this criteria, all four freeway segments reach an unacceptable level of service in either the AM or PM peak travel period.

Both northbound and southbound I-280 have four lanes with a capacity of 2,200 vehicles per lane and a total capacity of 8,800. The speed limit is 70 miles per hour (mph), with a free-flow speed of 65 mph. **Table 3.10-4** shows the level of service for each freeway segment. See **Appendix TRA** for the level of service calculation under existing conditions.

TABLE 3.10-4
EXISTING CONDITIONS HIGHWAY SEGMENT LOS

Intersection	LOS Standard	Existing (2016)					
		AM Peak			PM Peak		
		Volume (veh/hr)	LOS	V/C	Volume (veh/hr)	LOS	V/C
I-280 NB From Avalon to Westborough	D	6,269	D	0.712	**8,032**	**E**	**0.913**
I-280 NB from Westborough to Hickey	D	7,575	D	0.861	**8,727**	**E**	**0.992**
I-280 SB from Hickey to Westborough	D	7,179	D	0.816	**8,073**	**E**	**0.917**
I-280 SB from Westborough to Avalon	D	7,876	**E**	**0.895**	7,334	D	0.833

Source: Kimley-Horn 2017
*Note: Segments that are operating below acceptable levels are shown in **bold.***

3.10.3 REGULATORY FRAMEWORK

FEDERAL

Americans with Disabilities Act of 1990

Titles I, II, III, and V of the Americans with Disabilities Act (ADA) 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 nonprofit agencies that serve the public) and commercial facilities (other businesses). The regulation includes Appendix A to Part 36 (Standards for Accessible Design), establishing minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.

Examples of key guidelines include detectable warnings for pedestrians entering traffic where there is no curb, a clear zone of 48 inches for the pedestrian travelway, and a vibration-free zone for pedestrians.

Federal Highway Administration

The Federal Highway Administration (FHWA) is a major agency of the US Department of Transportation. In partnership with state and local agencies, the FHWA carries out federal highway programs to meet the nation's transportation needs. The FHWA administers and oversees federal highway programs to ensure that federal funds are used efficiently.

STATE

California Department of Transportation

Caltrans has authority over the state highway system, including freeways, interchanges, and arterial state routes. Caltrans approves the planning, design, and construction of improvements for all state-controlled facilities and the associated interchanges. Caltrans requirements are described in its Guide for the Preparation of Traffic Impact Studies (2002), which covers the information needed for Caltrans to review the impacts on state highway facilities, including freeway segments.

Statewide Transportation Improvement Program

The California Transportation Commission administers transportation programming, the public decision-making process that sets priorities and funds projects envisioned in long-range transportation plans. It commits expected revenues over a multiyear period to transportation projects. The State Transportation Improvement Program is a multiyear capital improvement program of transportation projects on and off the state highway system, funded with revenues from the State Highway Account and other funding sources.

Complete Streets (AB 1358)

Assembly Bill (AB) 1358, also known as the California Complete Streets Act of 2008, requires cities and counties to include complete streets policies in their general plans. These policies address the safe accommodation of all users, including bicyclists, pedestrians, motorists, public transit vehicles and riders, children, the elderly, and the disabled. These policies can apply to new streets as well as to the redesign of corridors.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) has jurisdiction over the safety of highway-rail crossings in California. The California Public Utilities Code requires CPUC approval for the construction or alteration of crossings and grants the CPUC exclusive power on the design, alteration, and closure of crossings in California.

Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The bill adds Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Division 13 (Section 21099) of the Public Resources Code. SB 743 started a process that could change the way transportation impacts are analyzed under the California Environmental Quality Act (CEQA).

These changes will shift agencies away from using auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant traffic impacts in California. SB 743 includes amendments that allow cities and counties to opt out of traditional level of service standards where congestion management programs are used and requires the California Office of Planning and Research (OPR) to update the CEQA Guidelines and establish "criteria for determining the significance of transportation impacts of projects within transit priority areas." As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." The OPR is currently accepting comments on its Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743, which was released on January 20, 2016, and currently proposes the use of vehicle miles traveled (VMT) as a metric for evaluating traffic impacts. Once the final draft of changes to the CEQA Guidelines is published, certification and adoption by the Secretary for Resources will be required before they go into effect.

LOCAL

City of South San Francisco General Plan

The following policies in the City's General Plan Transportation Element were taken into consideration as they relate to transportation and circulation.

Policies Regarding Street Systems

4.2-G-2 Improve connections between different parts of the city.

4.2-G-3 Where appropriate, use abandoned railroad rights-of-way and the BART right-of-way to establish new streets.

4.2-G-4 Use the El Camino Real/Chestnut Area Plan as a guide for detailed implementation of General Plan transportation policies for the El Camino Real/Chestnut Area.

4.2-G-7 Use Figure 4-1: Street Classifications, to identify, schedule, and implement roadway improvements. Use the El Camino Real/Chestnut Avenue Area Plan to identify, schedule, and implement roadway improvements for the El Camino Real/Chestnut Area and the Downtown Station Area Specific Plan for the Downtown Station Area roadway improvements.

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, improve alternate modes, and enhanced integration of various transportation systems serving South San Francisco, strive to reduce the total vehicle-miles traveled.

4.2-G-11 Coordinate local actions with regional agencies, and undertake active efforts to undertake transportation improvements.

4.2-G-12 Provide fair and equitable means for paying for future street improvements including mechanisms such as development impact fees.

4.2-G-13 Strive to maintain LOS D or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours.

4.2-G-14 Accept LOS E or F after finding that:

- There is no practical and feasible way to mitigate the lower level of service; and
- The uses resulting in the lower level of service are of clear, overall public benefit.

4.2-G-15 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. Improvements identified include [among others]:

- Connection between Hillside Boulevard and El Camino Real near the BART station.
- Arroyo Drive/Oak Avenue connection.
- Mission Road extension from Chestnut Avenue to South Linden Avenue extension on the BART right-of-way.

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.

4.2-I-10 Design roadway improvements and evaluate development proposals based on LOS standards.

4.2-I-11 Implement, to the extent feasible, circulation system improvements illustrated in Figures 4-1, 4-2, and 4-3 prior to deterioration in levels of service below the stated standard.

Policies Regarding Alternative Transportation Systems

4.3-G-1 Develop a comprehensive and integrated system of bikeways that promote bicycle riding for transportation and recreation.

4.3-G-2 Provide safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers.

4.3-G-3 Use the El Camino Real/Chestnut Avenue Area Plan as a guide for detailed implementation of General Plan alternative transportation system policies for the El Camino Real /Chestnut Area.

4.3-G-5 In partnership with employers, continue efforts to expand shuttle operations.

4.3-G-6 In partnership with the local business community, develop a transportation systems management plan with identified trip-reduction goals, while continuing to maintain a positive and supportive business environment.

Policies Regarding Bicycles

4.3-I-1 Prepare and adopt a Bikeways Master Plan that includes goals and objectives, a list or map of improvements, a signage program, detailed standards, and an implementation program. Once adopted, the Bicycle Master Plan shall be the guiding policy document regarding bicycling matters that are within the scope of the adopted Bicycle Master Plan.

4.3-I-2 As part of the Bikeways Master Plan, include improvements identified in Figure 4-4 in the General Plan and in the El Camino Real/Chestnut Avenue Area Plan, and the South San Francisco Downtown Station Area Specific Plan identify additional improvements that include abandoned railroad rights-of-way and other potential connections. [The following identified improvements are applicable to the proposed project.]

- Bike Path on linear park on the BART right-of-way, extending from the South San Francisco BART Station to the San Bruno BART station.
- Bike connections between Mission Road and El Camino Real
- Bike connection between Camaritas Avenue and El Camino Real

4.3-I-4 Require provision of secure covered bicycle parking at all existing and future multifamily residential, commercial, industrial, and office/institutional uses.

Policies Regarding Pedestrian Circulation

4.3-I-5 Prepare, adopt, and maintain a PMP as a long-term vision for supporting and improving pedestrian access in South San Francisco, including goals, policies, and strategic near-term implementation measures that encourage pedestrian activity and prioritizes pedestrian improvements for funding.

4.3-I-12 Use the El Camino Real/Chestnut Avenue Area Plan to identify, schedule, and implement pedestrian improvements for the El Camino Real/Chestnut Area.

Policies Regarding Transportation Demand Management (TDM)

4.3-I-15 Adopt a TDM program or ordinance which includes, but is not limited to, the following components:

- Methodology to determine eligibility for land use intensity bonuses for TDM programs identified in the Land Use Element.
- Procedures to ensure continued maintenance of measures that result in intensity bonuses.
- Requirements for off-site improvements (such as bus shelters and pedestrian connections) that are directly necessary as a result of development.

- Establishment of baseline TDM requirements for all new projects generating more than 100 peak period trips.
- Establishment of additional requirements for all new projects seeking a FAR bonus.
- An ongoing monitoring and enforcement program to ensure TDM measures are actually implemented.
- Reduce parking requirements for new projects implementing a TDM Program in proximity to fixed guide way transit or those with demonstrated measures that would reduce trip generation.

Policies Regarding Parking

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.

4.3-I-19 Amend the Zoning Ordinance to reduce minimum parking requirements for projects proximate to transit stations and for projects implementing a TDM program.

4.3-I-20 Investigate opportunities for shared parking facilities whenever possible to reduce the number of new parking stalls required.

Policies Regarding Transit

4.4-G-1 Promote local and regional public transit serving South San Francisco.

4.4-G-2 Explore mechanisms to integrate various forms of transit.

4.4-I-3 Explore the feasibility of a shuttle system between the Downtown/multi-modal station and South San Francisco and San Bruno stations. Explore mechanisms to provide the shuttle service free to riders.

El Camino Real/Chestnut Avenue Area Plan

The following Area Plan policies are relevant to the analysis of traffic and transportation impacts:

Section 3.3, Urban Design

UD-6 Establish a comprehensive urban design scheme that specifies a palette for landscaping, pedestrian amenities, and architectural features. The scheme should visually unite the entire area, highlight open space and Centennial Way, and signal key destinations to passing vehicular traffic.

UD-13 Create an open space and trail extension of Centennial Way along the BART right-of-way from Chestnut Avenue to Colma Creek, just north of the Oak Avenue extension. Establish the portion between Chestnut Avenue and Oak Avenue as a pedestrian district.

Section 3.4, Circulation

Guiding Principle 8: Provide enhanced linkages within the Planning Area. Pedestrian, bicycle, and vehicular connections should be established through new development to maximize the accessibility of open space, commercial amenities, and transit.

C-1 Ensure that transportation improvements are executed concurrently with associated and/or adjacent development, as described in Section 5.3: Phasing and Initial Development Steps.

C-2 Ensure that a continuous pedestrian and bicycle connection is provided along Centennial Way between Chestnut Avenue and the proposed Oak Avenue extension.

C-3 Emphasize linkages to Centennial Way with east-west pedestrian/bicycle connections from new development and surrounding neighborhoods. These linkages will also help to break up larger blocks and development sites.

C-4 Encourage pedestrian-oriented connections through development between Chestnut Avenue and the planned Oak Avenue extension.

C-5 Enhance pedestrian/bicycle connectivity to key destinations, including Kaiser Hospital, the potential library and other civic uses, such as Orange Memorial Park and the Municipal Services Building.

C-6 Undertake the following street improvements [only improvements near the project were included in this list:

- El Camino Real/Arroyo Drive/Oak Extension. Restripe westbound shared through/right turn lane to shared left turn/through/right turn lane.

Guiding Principle 9: Create efficient parking solutions that optimize sharing of resources between various uses.

P-1 Balance parking need and provision with the desire to promote transit, walking, and bicycling. Do not mandate any minimum parking standards; rather, establish maximum parking standards and let parking provision be determined by market need.

P-2 Require all non-residential development within the area shown in Figure 3-8 to participate in a parking district to efficiently meet parking demand. Establish a special assessment on the properties within the district to fund the majority of a shared parking structure and develop an in-lieu fee program providing developers the option to use district facilities for their parking needs.

P-3 Require that most parking be underground or in podiums/structures, to enable the ground to be used for active uses.

P-4 Wrap parking structures with development, such as ground floor retail along pedestrian-oriented streets and around public spaces, and townhomes along Centennial Way.

P-5 Ensure that entrances to structured parking for commercial uses are highly visible and easily accessed from Chestnut Avenue and El Camino Real.

P-6 Allow parking areas exceeding one space per housing unit to be provided in form of tandem parking (which will reduce parking construction costs), and/or allow (but do not require) parking in excess of one space per unit to be "unbundled" (that is, purchased or leased separately from the housing unit).

P-7 Design mixed-use developments to enable parking to be shared efficiently between various uses.

P-8 Provide on-street parking along Chestnut Avenue and the planned Oak Avenue extension. Work with Caltrans to provide on-street parking along El Camino Real within the Planning Area.

P-10 Implement a parking way-finding system that identifies public parking.

P-11 Continue to administer and implement the transportation demand management program through the Municipal Code

P-12 Use the development agreement process to ensure that developers accept the transportation demand management and trip reduction requirements. Although trip reduction requirements are established for sites and buildings during the entitlements phase of development, the TDM programs will primarily be developed, implemented, monitored and refined by future employers and tenants. Employers are required to develop and submit plans for approval, implement and monitor the effectiveness of the plan and ability to meet requirements, and refine the plan as necessary.

Section 4, Design Guidelines

DG-19 Sidewalks in front of ground floor uses should be designed with amenities that encourage pedestrian activity.

DG-25 Access to buildings within public and institutional areas should be visible from the street, with clearly marked entrances and pedestrian pathways and a consistent landscaping palette.

DG-26 New development should be brought to the street edge, with parking located in the rear or on the interior of development.

DG-41 Landscaping and tree planting along the length of Centennial Way should exhibit a unified palette. The pedestrian district portion of Centennial Way between Oak and Chestnut avenues should:

- Provide consistent lighting, specialty paving along walkways, and other pedestrian amenities.
- Be visible and accessible from Oak and Chestnut avenues. It should be designed with landscaping and ancillary structures that strategically identify pedestrian pathways and sitting areas, and articulate the space's edges.

- Permit a variety of activities and events. These may include informational kiosks, vendors, public art, or public screening areas.

DG-43 Public spaces, including pedestrian connections should be well-lit and designed for high visibility to ensure personal safety and comfort.

DG-44 Signature, pedestrian-scaled lighting elements should be employed along Centennial Way, at minimum along the pedestrian district and public plaza between Chestnut and Oak avenues.

DG-50 Provide clear signage for entrances to structured parking to facilitate ease of parking in mixed-use areas.

DG-51 Limit curb cuts and driveway entrances to reduce conflicts with pedestrians. Locate driveway entrances on side streets and access drives where possible.

DG-52 Loading should be designed to be off the public right-of-way. Service areas should be accessible for truck drivers, with appropriate access from docks into buildings. Avoid locating access to loading areas on major streets.

DG-53 Design structured parking as an integral part of the project it serves. Where parking is visible from rights-of-way or open space, it should be designed to be consistent in style and materials with the rest of the project. Landscaping that is compatible with building design may also be employed as a screening.

DG-54 Bicycle parking should be located near entrances and exits, secure, and weather protected.

City of South San Francisco Municipal Code

All nonresidential development is required to implement Trip Reduction Measures per Title 20, Zoning, Part II, Chapter 20.400.004 of the South San Francisco Municipal Code. Measures include carpool and vanpool ride matching services, passenger loading zones for carpool and vanpools, pedestrian connections from the project to surrounding external streets, and long- and short-term bicycle parking.

City of South San Francisco Pedestrian Master Plan

The Pedestrian Master Plan was adopted to facilitate increased walking to local destinations in South San Francisco. The plan includes an inventory of the current pedestrian facilities in the city, a gap analysis to identify and prioritize needed improvements in the city, and goals, policies, and implementation measures to achieve a more walkable city. Downtown South San Francisco and residential neighborhoods were the key focus areas in the plan. The plan included the following recommended improvements and projects in the vicinity of the project:

- Missing sidewalks at the intersections of El Camino Real and Chestnut Avenue, and Antoinette Lane and Chestnut Avenue

- Improve ADA compliance by adding tactile domes to curb ramps at the intersections of El Camino Real and Chestnut Avenue, El Camino Real and Arroyo Drive, and Arroyo Drive and Camaritas Avenue

- Linear barriers physically separate different parts of the city and present obstacles walking between neighborhoods. Colma Creek is a linear barrier near the project site. Crossings at linear barriers should be enhanced to improve comfort and safety.

- Centennial Way Trail through Chestnut Avenue Crossing: extend the centennial trail along the sidewalk alignment on the west side of Antoinette Lane and crosswalk on Chestnut Avenue to connect the Centennial Trail.

City of South San Francisco Bicycle Master Plan

The plan recommends a comprehensive and integrated system of bikeways to promote bicycle riding for transportation and recreation. Recommendations are intended to provide safer and more direct bicycle routes through residential neighborhoods, employment and shopping areas, and linkages to transit stops. In implementing the plan, the City is striving to make bicycling an important part of the transportation system in South San Francisco. The plan included the following recommended improvements and projects in the vicinity of the project:

- A proposed bicycle lane along Chestnut Avenue

- A proposed bicycle route along Arroyo Drive

3.10.4 IMPACTS AND MITIGATION MEASURES

METHODOLOGY

The transportation impact analysis is based on the transportation impact analysis prepared by Kimley-Horn (**Appendix TRA**). The following is a summary of the methods and assumptions used to conduct the impact analysis for the project. Information was collected on roadway configurations, daily traffic counts, public transit routes, and bicycle and pedestrian facilities.

Project Traffic Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. This process was used for both Scenario 2: Existing plus project conditions and Scenario 4: Cumulative plus project conditions.

Trip Generation

Project traffic was estimated by applying the project size to trip generation rates as published by the Institute of Transportation Engineers (ITE). Trip generation rates are the number of trips generated by a particular land use and represent a national average for similar land use types. To determine the worst-case traffic impacts, project trips are typically estimated during the AM and PM peak hours (7:00–9:00 AM and 4:00–6:00 PM). The TIA defined blocks for each section of the project, and trip generation rates were calculated based on the proposed development for each block. Traffic generated by each block was then added to estimate the overall project trips.

Trip Distribution

The project's trip distribution pattern was estimated based on existing traffic count information, traffic volumes in the C/CAG travel demand model, and the orientation of similar land uses to the site and population and employment sources to the study area. The project trip distribution pattern is shown graphically on TIA Figure 7 (**Appendix TRA**).

Trip Assignment

The project's peak-hour vehicle trips were added to the transportation network in accordance with the project trip distribution pattern discussed above. The assignment of project trips is presented graphically on TIA Figure 9 (**Appendix TRA**).

Cumulative Conditions

Cumulative (2030) No Project Conditions

Cumulative (2030) no project conditions establish future traffic levels at project intersections and freeway segments without traffic created by the project. The "no project" assumes the ECR/C is not implemented. The Cumulative No Project volumes are the existing volumes grown based on growth rates from the C/CAG model. This creates a baseline condition for the evaluation of project impacts in the future. Cumulative traffic volumes for the study intersections and roadway segments were estimated for the year 2030 using growth rates derived from the C/CAG travel demand forecasting model. The model reflects land use, population, employment, income levels, automobile ownership, persons per household, and other factors. The model output includes weekday AM and PM peak-period volume.

Cumulative (2030) plus Project Conditions

Cumulative (2030) plus project conditions add future traffic generated by the project to the cumulative (2030) no project conditions. Differences in level of service show the project's future impact on traffic at project intersections and freeway segments.

STANDARDS OF SIGNIFICANCE

Per the CEQA Guidelines, a transportation and circulation impact is considered significant if project implementation would result in one or more of the following:

1) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections).

2) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways.

3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

5) Result in inadequate emergency access.

6) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Changes in the CEQA Guidelines

There have been no changes in the CEQA Guidelines since 2011 that are relevant to the analysis of traffic and transportation impacts. This Draft SEIR uses the CEQA Guidelines as outlined in Appendix G. Both the ECR/C EIR and this subsequent EIR use the same impact criteria established by the City of South San Francisco and San Mateo County.

IMPACT CRITERIA

Level of Service Impact Criteria

The City of South San Francisco requires that LOS D be maintained for intersections during the AM and PM peak periods. A project would be considered to have a significant impact if the following criteria are met:

- The trips generated by the project would cause the intersection to operate at LOS E or F.
- If an existing intersection currently does not meet the City's LOS standard, the project would have a significant impact if trips generated by the project would add traffic to that intersection.
- If an existing intersection currently meets the City's LOS standard, and a combination of project traffic and future cumulative traffic would result in the intersection not meeting the City's LOS standard and the project traffic increased the average control delay for the intersection by 4 or more seconds.

The San Mateo County Congestion Management Program set the LOS standards for freeways in the county. The CMP sets the standard for Interstate 280 as LOS D. The project would have a significant impact if:

- Trips generated by the project would cause a freeway segment to operate at a level of service that does not meet the CMP standard (LOS D).
- If the freeway segment currently does not meet the CMP standard, the project would have a significant impact if trips generated by the project add 1 percent or more of the freeway capacity, or if the volume-to-capacity ratio increases by 1 percent.
- If the future cumulative analysis shows the addition of background traffic to the project traffic would result in the freeway segment not meeting the CMP standard and the project traffic increases demand on the freeway by 1 percent, or the volume-to-capacity ratio increases by 1 percent.

Bicycle and Pedestrian Systems Impact Criteria

Pedestrian and bicycle impacts are considered significant if the project disrupts existing facilities or interferes with planned pedestrian or bicycle facilities. Impacts are also significant if the project creates inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.

Transit Impact Criteria

Transit impacts are significant if the project disrupts existing transit facilities or service, or interferes with planned transit services or facilities. They are significant if the project creates demand for public transit services beyond the provided or planned services. Impacts are also considered significant if the project creates inconsistencies with adopted transit system plans, guidelines, policies, or standards.

PROJECT IMPACTS AND MITIGATION MEASURES

Cause a Substantial Increase in Traffic Load (Standard of Significance 1) or Conflict with an Applicable Congestion Management Program (Standard of Significance 2)

Impact 3.10.1 Based on project site circulation patterns and potential conflicts, the project would have an impact on applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. The project's impact would be **less than significant with mitigation.**

2011 ECR/C Area Plan Impacts

The transportation impact analysis prepared for the ECR/C EIR analyzed the same intersections and I-280 segments as the proposed project. **Table 3.10-5** summarizes the findings in the ECR/C EIR under existing plus project conditions.

TABLE 3.10-5
ECR/C INTERSECTION TRANSPORTATION IMPACTS

Intersection	ECR/C EIR Impact
1. El Camino Real/Hickey Boulevard	Less than significant with mitigation (Policy C-6 of the proposed plan to modify signal operations to include an eastbound right turn overlap phase would improve LOS in 2010 Existing plus Project to LOS C)
2. El Camino Real/McLellan Boulevard	Less than significant
3. El Camino Real/Arroyo Drive/Oak Extension	Less than significant
4. El Camino Real/Chestnut Avenue	Less than significant
5. El Camino Real/Orange Avenue	Less than significant
6. Mission Road/Grand Avenue	Less than significant
7. Chestnut Avenue/Grand Avenue	Less than significant
8. Mission Road/Oak Avenue	Less than significant
9. Mission Road/Chestnut Avenue	Less than significant
10. Junipero Serra Boulevard/Arroyo Drive (Worst Approach)	No impact. No project trips are being added to this intersection; therefore, there is no impact at this intersection as a result of the proposed plan.
11. Westborough Boulevard/I-280 SB Off-Ramp	Less than significant
12. Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard	Less than significant with mitigation

Source: South San Francisco 2011b

The original EIR found that the project would have less than significant impacts with mitigation incorporated under existing plus project conditions. The mitigation involved the restriping of streets to improve the level of service, which was feasible in the existing plus project scenario (South San Francisco 2011b, p. 3.1-25).

Impacts on freeway segments were found to be less than significant under the existing plus project scenario, because all freeway segments would continue to operate at an acceptable level of service (South San Francisco 2011b, p. 3.1-33).

Subsequent Project Impacts Under Existing plus Project Conditions

Project Trip Generation

As described in the Methodology subsection above, project traffic was estimated by applying the project size to trip generation rates as published by the Institute of Transportation Engineers. The TIA defined blocks for each section of the project, and trip generation rates were calculated based on the proposed development for each block. Traffic generated by each block was then added to estimate the overall project trips. Based on this analysis, it was determined that the project would generate 487 new AM peak-hour trips and 940 new PM peak-hour trips.[1]

Intersection Level of Service Analysis

The results of the intersection LOS analysis indicate that based on the applicable significance criteria, four study intersections would operate unacceptably based on City criteria under existing plus project conditions. The results of the intersection analysis are summarized in **Table 3.10-6**. **Figure 3.10-3** shows the traffic volumes at each intersection.

The following study intersections would operate unacceptably under existing plus project conditions:

- Intersection 1 – El Camino Real and Hickey Boulevard – AM and PM peak hours. Project trips would cause the AM peak LOS to fall from an acceptable LOS D to an unacceptable LOS E. Project-generated trips would increase.
- Intersection 4 – El Camino Real and Chestnut Avenue – AM and PM peak hours
- Intersection 10 – Junipero Serra Boulevard and Arroyo Drive – AM and PM peak hours
- Intersection 12 – Westborough Boulevard and I-280 NB on-ramp/Junipero Serra Boulevard – AM and PM peak hours

[1] Note: The TIA states the ECR/C plan area would add 9,962 additional trips. However, the revised project only encompasses blocks D and E (-340 trips), blocks F and G (4,856 trips), and the outside focus area (1,055 trips) for a total of 5,571 trips. Of these 5,571 trips, 487 would occur during the AM peak hour and 940 would occur in the PM peak hour. The remaining 4,144 would occur at other times of day.

TABLE 3.10-6
EXISTING AND EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	LOS Standard	Control	Existing (2016)				Existing plus Project			
			AM Peak		PM Peak		AM Peak		PM Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1. El Camino Real/Hickey Boulevard	D	Signal	D	53.4	**E**	**58.9**	**E**	**57.8**	**F**	**87.3**
2. El Camino Real/ McLellan Boulevard	D	Signal	C	31.8	D	35.0	C	33.8	D	36.7
3. El Camino Real/ Arroyo Drive/Oak Extension	D	Signal	C	25.5	C	20.5	C	26.8	C	24.0
4. El Camino Real/ Chestnut Avenue	D	Signal	**E**	**59.7**	D	52.4	**E**	**60.8**	**E**	**58.0**
5. El Camino Real/ Orange Avenue	D	Signal	D	36.8	D	40.7	D	36.9	D	40.9
6. Mission Road/ Grand Avenue	D	AWSC	B	12.9	B	13.0	B	14.1	B	14.7
7. Chestnut Avenue/ Grand Avenue	D	Signal	C	32.2	C	31.2	C	33.0	C	31.9
8. Mission Road/Oak Avenue	D	SSSC	A	2.3	A	1.0	A	2.3	A	0.9
Worst Approach			B	14.9	B	11.8	C	16.5	B	12.7
9. Mission Road/ Chestnut Avenue	D	Signal	C	26.7	C	26.4	C	29.3	C	29.2
10. Junipero Serra Boulevard/Arroyo Drive (Worst Approach)	D	SSSC	B	11.5	A	3.8	B	11.5	A	3.8
Worst Approach			**F**	**99.7**	**E**	**39.2**	**F**	**99.7**	**E**	**39.2**
11. Westborough Boulevard/I-280 SB Off-Ramp	D	Signal	A	5.3	A	9.8	A	5.4	B	10.5
12. Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard	D	Signal	**F**	**85.6**	D	54.9	F	96.8	E	65.4

Source: Kimley-Horn 2017
*Note: Intersections that are operating below acceptable levels are shown in **bold,** and significant impacts are highlighted.*

Project Impacts and Mitigation Measures for Existing Conditions plus Project

Intersection 1: El Camino Real/Hickey Boulevard

Impact 3.10.1a Project traffic would cause Intersection 1 to operate below acceptable levels of service in the AM and PM peak hours. The impact would be **less than significant with mitigation**.

As shown in **Figure 3.10-3** and **Table 3.10-6**, the intersection (El Camino Real/Hickey Boulevard) operates at an acceptable LOS D during the AM peak hour and at an unacceptable LOS E during the PM peak hour. Project-generated traffic would degrade the intersection level of service to an unacceptable LOS E during the AM peak hour and LOS F during the PM peak hour. This would be a potentially significant impact, and mitigation measure **MM 3.10.1a** would be required. Implementation of this mitigation measure would improve the intersection level of service to an acceptable LOS C during the AM peak hour and LOS D during the PM peak hour. The revised project's impact would continue to be **less than significant with mitigation.**

Mitigation Measures

MM 3.10.1a The City shall add an eastbound right turn overlap phase for vehicles going eastbound on Hickey Boulevard and making a right turn onto southbound El Camino Real.

Intersection 4: El Camino Real/Chestnut Avenue

Impact 3.10.1b Project traffic would cause Intersection 4 to operate below acceptable levels of service in the AM and PM peak hours. The impact would be **less than significant with mitigation**.

As shown in **Figure 3.10-3** and **Table 3.10-6**, the intersection (El Camino Real/Chestnut Avenue) operates at an unacceptable LOS E during the AM peak hour and at an acceptable LOS D during the PM peak hour. The addition of project-generated traffic would cause the intersection to operate at an unacceptable LOS E during both the AM and PM peak hours. This would be a potentially significant impact, and mitigation measure **MM 3.10.1b** would be required. The mitigation measure would improve intersection level of service to an acceptable LOS D for both the AM and PM peak hours and reduce the revised project's impact to **less than significant with mitigation.**

Mitigation Measures

MM 3.10.1b The City shall modify the signal timing, as outlined in the TIA, to optimize the cycle length at the intersection of El Camino Real and Chestnut Avenue.

Intersection 10: Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard

Impact 3.10.1c Intersection 10 would operate below acceptable levels of service in the AM and PM peak hours under the existing plus project scenario. The project would have **no impact.**

As shown in **Figure 3.10-3** and **Table 3.10-6**, the intersection (Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard) operates at an unacceptable LOS F during the AM peak hour and at an unacceptable LOS F during the PM peak hour. Project-generated traffic was found to add no traffic to the intersection and as such, would not exacerbate the traffic delay. Therefore, the revised project would continue to have **no impact**.

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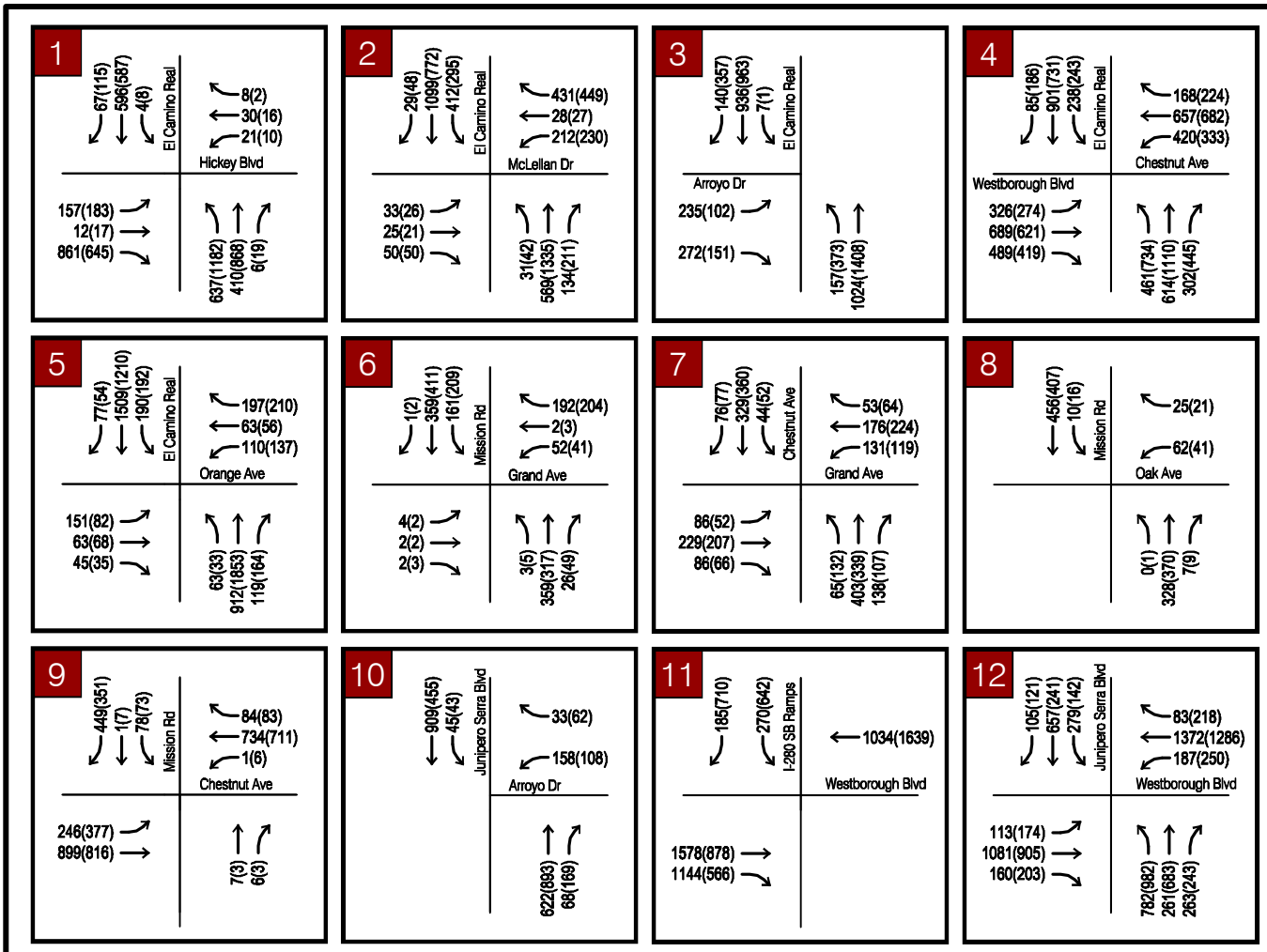
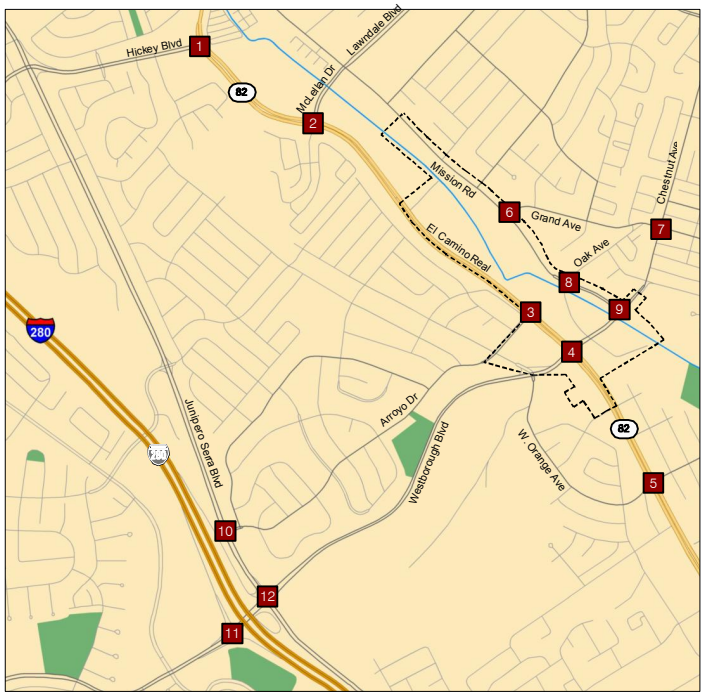




LEGEND

X	STUDY AREA INTERSECTIONS
	EL CAMINO - CHESTNUT PLAN AREA
AM/(PM)	AM(PM) PEAK HOUR VOULMES

Source: Kimley Horn

Not To Scale

FIGURE 3.10-3
Existing Plus Project Conditions

Michael Baker INTERNATIONAL

Mitigation Measures

None required.

Intersection 12: Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard

Impact 3.10.1d Project traffic would continue to cause Intersection 12 to operate below acceptable levels of service in the AM and PM peak hours. This impact would be **less than significant with mitigation**.

As shown in **Figure 3.10-3** and **Table 3.10-6**, the intersection (Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard) operates at an unacceptable LOS F during the AM peak hour and at an acceptable LOS D during the PM peak hour. Traffic generated by the project would cause the intersection to continue to operate at an unacceptable LOS F during the AM peak hour and at an unacceptable LOS E during the PM peak hour. This would be a potentially significant impact, and mitigation measure **MM 3.10.1d** would be required. The mitigation measure would improve operations at the intersection to LOS E during the AM peak hour and LOS D during the PM peak hour. While the intersection would still operate at an unacceptable LOS E during the AM peak hour, traffic conditions would improve over existing conditions without the project. Therefore, the revised project's impacts would continue to be **less than significant with mitigation.**

Mitigation Measures

MM 3.10.1d The City shall modify the signal timing to optimize the cycle length in the AM and PM periods at the intersection of Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard. The City shall also restripe the southbound approach on Junipero Serra Boulevard to one left through lane, one shared through/left turn lane, one through turn lane, and one right turn lane. The City shall also add an eastbound left turn lane and a westbound left turn lane along Westborough Boulevard.

Highway Level of Service Analysis

The results of the intersection level of service analysis, shown in **Table 3.10-7**, indicate that all freeway segments would operate at acceptable service levels. Each freeway segment would operate at LOS E for either the AM or PM peak hour. Because the project adds less than 1 percent of the freeway capacity and the volume-to-capacity ratio increases by less than 1 percent, the project would not significantly impact the freeway segments.

TABLE 3.10-7
EXISTING AND EXISTING PLUS PROJECT HIGHWAY SEGMENT LOS

Intersection	LOS Standard	Existing (2016)						Existing Plus Project					
		AM Peak			PM Peak			AM Peak			PM Peak		
		Volume (veh/hr)	LOS	V/C	Volume (veh/hr)	LOS	V/C	Volume (veh/hr)	LOS	V/C	Volume (veh/hr)	LOS	V/C
I-280 NB From Avalon to Westborough	D	6,269	D	0.712	**8,032**	**E**	**0.913**	6,277	D	0.713	**8,079**	**E**	**0.918**
I-280 NB from Westborough to Hickey	D	7,575	D	0.861	**8,727**	**E**	**0.992**	7,616	D	0.865	**8,774**	**E**	**0.997**
I-280 SB from Hickey to Westborough	D	7,179	D	0.816	**8,073**	**E**	**0.917**	7,187	D	0.817	**8,120**	**E**	**0.923**
I-280 SB from Westborough to Avalon	D	7,876	**E**	**0.895**	7,334	D	0.833	**7,917**	**E**	**0.900**	7,381	D	0.839

Source: Kimley-Horn 2017
*Note: Segments that are operating below acceptable levels are shown in **bold.***

Result in a Change in Air Traffic Patterns (Standard of Significance 3)

Impact 3.10.2 Project implementation would not change air traffic patterns, increase traffic levels, or change the location of air traffic. The impact would be **less than significant**.

2011 ECR/C Area Plan Impacts

The proposed plan would not change any air traffic patterns, nor would it change the location of air traffic approaching or departing San Francisco International Airport. Therefore, there would be no impacts on air traffic (South San Francisco 2011b, p. 3.1-24).

Subsequent Project Impacts

The project would not change air traffic patterns, as the development would comply with C/CAG height limits for the area. The project also not increase air traffic levels. The project does not increase population beyond what was analyzed in the ECR/C EIR. Therefore, the impact would continue to be **less than significant**.

Mitigation Measures

None required.

Increase Hazards Due to a Design Feature (Standard of Significance 4)

Impact 3.10.3 Project implementation would not increase hazards due to a design feature. Impacts would be **less than significant**.

2011 ECR/C Area Plan Impacts

The original EIR found that the ECR/C Area Plan would not increase hazards due to a design feature or incompatible uses. The plan would increase the design quality of the planning area through policies and design guidelines. Key guiding principles include maximizing active frontages along key streets; developing the area with an overall character and urban design scheme that promotes livability and sustainability; enhanced streetscape improvements, public plazas, open spaces, and pedestrian connections; and enhanced linkages within the planning area. The plan would not introduce any hazardous design features (South San Francisco 2011b, p. 3.1-25).

Subsequent Project Impacts

The project would not increase hazards due to a design feature. The project does not change area plan policies and design guidelines, and would follow applicable policies to ensure compliance with the General Plan. Project roads on the eastern project site would comply with all City standards. The revised project's impact would be **less than significant**.

Mitigation Measures

None required.

Result in Inadequate Emergency Access (Standard of Significance 5)

Impact 3.10.4 Project implementation would not result in inadequate emergency access. Impacts would be **less than significant**.

2011 ECR/C Area Plan Impacts

The original EIR found that the Area Plan would not change emergency vehicle access routes to and around the planning area. Police and fire stations are located in the planning area, which would result in a response time of 5 minutes or less. The plan would facilitate the Oak Avenue extension, creating easier circulation from police and fire stations to the planning area. In addition, emergency access to the planning area would remain the same, indicating that there would be no impact on emergency access (South San Francisco 2011b, p. 3.1-25).

Subsequent Project Impacts

The project would not change emergency vehicle access routes to and around the project site. The new fire and police stations may improve emergency response times in the area due to the modernization of emergency facilities and equipment. The revised project's impact would be **less than significant**.

Mitigation Measures

None required.

Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities (Standard of Significance 6)

Impact 3.10.5 Project implementation would increase motor vehicle traffic and congestion on roadways used by transit, bicyclists, and pedestrians. The project would increase biking and pedestrian usage in the vicinity of the project site; however, impacts would be **less than significant**.

2011 ECR/C Area Plan Impacts

The original EIR concluded that the project would not have impacts on alternative transportation. The Area Plan would help enhance linkages in the planning area by establishing pedestrian, bicycle, and vehicular connections through the new development. Creating a pedestrian-friendly realm would also encourage more walking (South San Francisco 2011b, p. 3.1-25).

Subsequent Project Impacts

Pedestrian Facilities

There are sidewalks and pedestrian paths along most of the roadways near the project site. However, there are several gaps in the sidewalk network, with the largest on the west side of El Camino Real from the BART access road to north of Arroyo Drive. Mission Road also lacks a sidewalk on the west side from Oak Avenue to Grand Avenue. The project would increase pedestrian use in the vicinity of the project site.

As described in the Regulatory Framework subsection above, the City adopted a Pedestrian Master Plan to facilitate increased walking to local destinations in South San Francisco. With implementation of the planned facilities identified in the Pedestrian Master Plan, the project site would be served by roadways that would be safe and accessible for pedestrians. In addition, the ECR/C Area Plan includes a proposed pedestrian trail connection to the Centennial Way Trail, further enhancing the pedestrian facilities in the city. With the addition of the connection to the Centennial Way Trail, the project would be served by adequate pedestrian facilities.

The implementation of this project would not interfere with the planned pedestrian improvements outlined in the Pedestrian Master Plan or the ECR/C Area Plan. The project would not create inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.

Bicycle Facilities

There are several bicycle facilities in the project vicinity, and several are planned as part of the ECR/C Area Plan. The proposed project would increase the demand on bicycle facilities in the vicinity of the project site. As described in the Regulatory Framework subsection above, the City adopted a Bicycle Master Plan to facilitate increased bicycling to local destinations in South San Francisco. With implementation of the planned facilities identified in the Bicycle Master Plan, the project site would be served by roadways that would be safe and accessible for bicyclists.

The project's traffic generation and proposed site access would not interfere with existing or planned bicycle facilities. During construction, work crews would use existing public roads to transport equipment. Nonetheless, construction traffic would use approved routes and obey all traffic laws.

The project would not interfere with any of the existing or proposed bicycle facilities, or conflict with currently adopted goals or policies.

Transit Facilities

The project is expected to generate transit ridership. The current transit services in the area are not running at full capacity; therefore, the additional passengers would be accommodated by the existing services. In addition, the project-generated riders would be spread across the various planned bus routes, resulting in a minimal effect on transit capacity. Therefore, this impact would be less than significant.

The project would not interfere with existing or planned pedestrian or bicycle facilities, transit service or transit stops. Thus, the revised project's impact on pedestrian, bicycle, and transit facilities would be **less than significant**.

Mitigation Measures

None required.

3.10.5 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

This subsection presents the intersection impacts under cumulative conditions and the level of service standards and intersection operations. The same intersections and freeway segments were analyzed in the ECR/C EIR and the Existing plus Project section above. Oak Avenue currently ends at Mission Road. An extension to El Camino Real is included in the ECR/C EIR, which, while not triggered by this project, was included in the cumulative 2030 analysis because other projects in the area would trigger its construction. This extension would help alleviate traffic congestion in the area by redistributing trips from El Camino Real, Chestnut Avenue, and Mission Road. To analyze cumulative impacts on the project intersections and freeway segments, 2030 traffic volumes were calculated with and without traffic from the project, allowing the project's impacts to be analyzed. The LOS result and calculations are discussed in detail in the TIA (**Appendix TRA**).

Cumulative Traffic Impacts

Impact 3.10.6 Based on project site circulation patterns and potential conflicts, the project's impact would be **less than cumulatively considerable with mitigation** on applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system.

2011 ECR/C Area Plan Impacts

The transportation impact analysis prepared for the ECR/C EIR analyzed the same intersections and I-280 segments as the proposed project. **Table 3.10-8** summarizes the findings of the ECR/C EIR under existing plus project conditions.

TABLE 3.10-8
ECR/C CUMULATIVE INTERSECTION TRANSPORTATION IMPACTS

Intersection	ECR/C EIR Impact
1. El Camino Real/Hickey Boulevard	Cumulatively significant, project contribution less than significant with mitigation
2. El Camino Real/McLellan Boulevard	Significant and unavoidable – mitigation involved the construction of a third southbound lane along El Camino Real
3. El Camino Real/Arroyo Drive/Oak Extension	Less than significant with mitigation
4. El Camino Real/Chestnut Avenue	Significant and unavoidable – mitigation involved the construction of a second eastbound right turn land and a second eastbound left turn lane
5. El Camino Real/Orange Avenue	Significant and unavoidable – the construction of a second westbound right turn lane would require the taking of property from a private business.
6. Mission Road/Grand Avenue	Less than significant with mitigation
7. Chestnut Avenue/Grand Avenue	Less than significant
8. Mission Road/Oak Avenue	Significant and unavoidable – the construction of additional travel lanes would require additional right of way, which makes the mitigation infeasible.
9. Mission Road/Chestnut Avenue	Significant and unavoidable
10. Junipero Serra Boulevard/Arroyo Drive (Worst Approach)	No impact. No project trips are being added to this intersection; therefore, there is no impact at this intersection as a result of the proposed Plan.
11. Westborough Boulevard/I-280 SB Off-Ramp	Cumulatively significant, project contribution less than significant.
12. Westborough Boulevard/I-280 NB On-Ramp/ Junipero Serra Boulevard	Cumulatively significant, project contribution less than significant with improvements

Source: South San Francisco 2011b

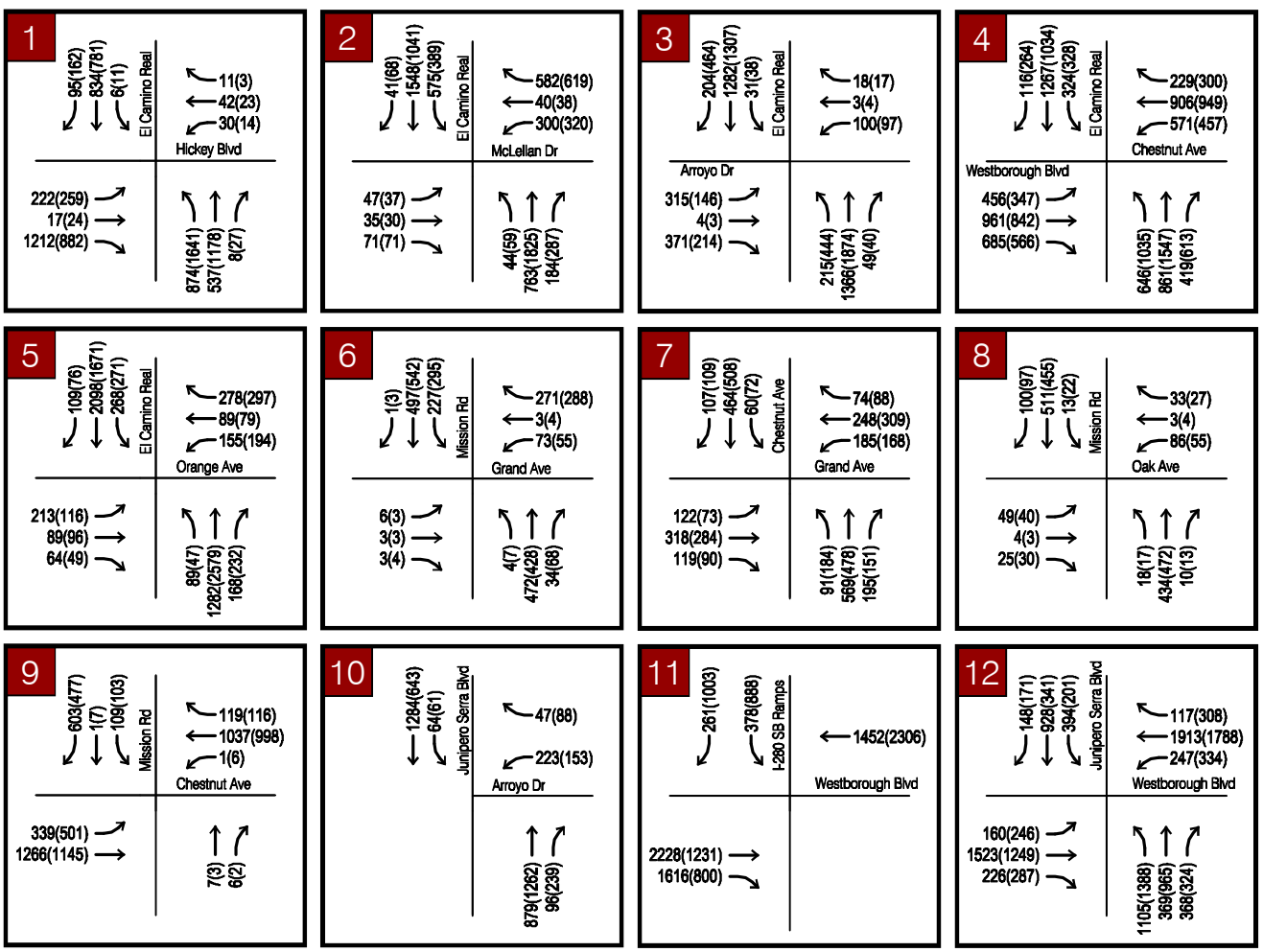
The original EIR found that the project would have significant and unavoidable impacts under the 2030 cumulative conditions plus project. Mitigation measures required the addition of right-of-way along developed streets and were therefore infeasible. The mitigation involved the restriping of streets to improve level of service, which was feasible in the existing plus project scenario (South San Francisco 2011b, p. 3.1-27).

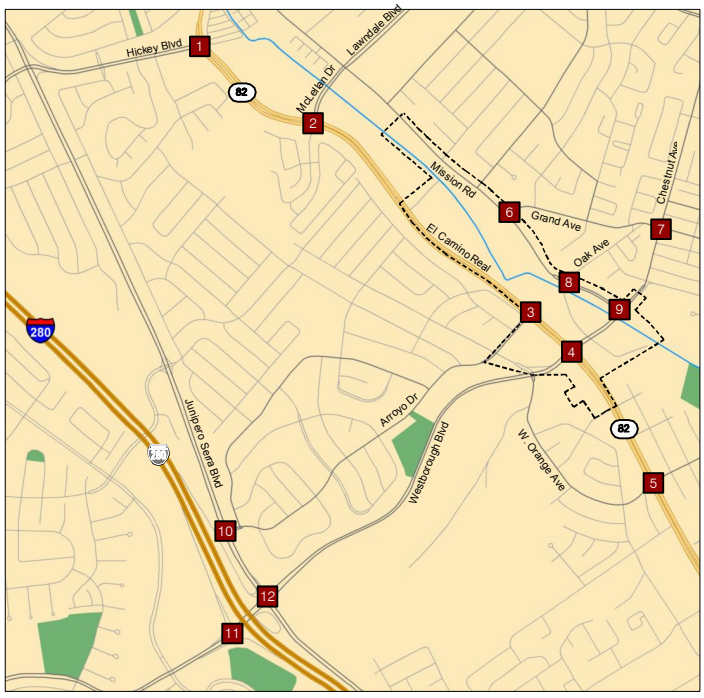
Subsequent Project Impacts on Cumulative (2030) plus Project Conditions

Intersection Level of Service Analysis

The results of the intersection level of service analysis, shown in **Table 3.10-9,** indicate that based on the applicable significance criteria, seven study intersections would be significantly impacted by the project under existing plus project conditions. **Figure 3.10-4, Cumulative plus Project Conditions,** shows the cumulative plus project traffic volumes for each intersection.

T:_CSWork\South San Francisco, City of\157237 Civic Center Planning + CEQA\Figures





LEGEND

X	STUDY AREA INTERSECTIONS
	EL CAMINO - CHESTNUT PLAN AREA
AM/(PM)	AM(PM) PEAK HOUR VOULMES

Source: Kimley Horn

Not To Scale

FIGURE 3.10-4
Cumulative Plus Project Conditions

Michael Baker INTERNATIONAL

The following study intersections would operate unacceptably under cumulative (2030) no project conditions:

- Intersection 1 – El Camino Real and Hickey Boulevard (AM and PM peak hours)
- Intersection 2 – El Camino Real and McLellan Drive (AM peak hour)
- Intersection 4 – El Camino Real and Chestnut Avenue (AM and PM peak hours)
- Intersection 5 – El Camino Real and Orange Avenue (AM and PM peak hours)
- Intersection 8 – Mission Road and Oak Avenue (AM peak hour)
- Intersection 10 – Junipero Serra Boulevard and Arroyo Drive (AM and PM peak hours)
- Intersection 12 – Westborough Boulevard and I-280 NB On-Ramp (AM and PM peak hours)

TABLE 3.10-9
CUMULATIVE (2030) PLUS PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	LOS Standard	Control	Existing (2030)				Existing Plus Project			
			AM Peak		PM Peak		AM Peak		PM Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1. El Camino Real/ Hickey Boulevard	D	Signal	**F**	**176.5**	**F**	**178.6**	**F**	**187.4**	**F**	**2**
2. El Camino Real/ McLellan Boulevard	D	Signal	**E**	**62.8**	D	45.2	**E**	**67.4**	**D**	**53.4**
3. El Camino Real/ Arroyo Drive/Oak Extension	D	Signal	D	37.7	C	30.8	D	42.0	C	33.8
4. El Camino Real/ Chestnut Avenue	D	Signal	F	**127.4**	**F**	**97.2**	**F**	**139.3**	**F**	**129.5**
5. El Camino Real/ Orange Avenue	D	Signal	**E**	**72.6**	**F**	**105.5**	**E**	**75.7**	**F**	**110.4**
6. Mission Road/ Grand Avenue	D	AWSC	C	22.4	C	23.1	D	25.1	D	27.7
7. Chestnut Avenue/ Grand Avenue	D	Signal	D	49.7	D	42.1	D	52.8	D	44.4
8. Mission Road/ Oak Avenue	D	SSSC	A	5.8	A	1.3	A	7.2	A	1.3
Worst Approach			**E**	**30.8**	B	14.1	**E**	**39.6**	B	14.8
9. Mission Road/ Chestnut Avenue	D	Signal	C	27.6	C	28.2	C	30.3	C	33.9
10. Junipero Serra Boulevard/Arroyo Drive (Worst Approach)	D	SSSC	**F**	**76.5**	D	28.9	**F**	**76.5**	D	28.9
Worst Approach			**F**	**674.1**	**F**	**322.7**	**F**	**674.1**	**F**	**322.7**
11. Westborough Boulevard/I-280 SB Off-Ramp	D	Signal	B	10.6	D	41.9	B	10.9	D	48.9
12. Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard	D	Signal	**F**	**265.1**	**F**	**196.0**	**F**	**278.9**	**F**	**216.0**

South: Kimley Horn 2017
*Note: Intersections that are operating below acceptable levels are shown in **bold** and significant impacts are highlighted.*

Project Impacts and Mitigation Measures for Cumulative (2030) plus Project Conditions

Intersection 1 – El Camino Real and Hickey Boulevard

Impact 3.10.6a Project traffic would cause Intersection 1 to continue operating below acceptable levels of service for the AM and PM peak hours with an increase of more than 4 seconds of delay at the intersection. The project's contribution would be **less** than **cumulatively considerable with mitigation**.

As shown in **Figure 3.10-4** and **Table 3.10-9**, the intersection (El Camino Real/Hickey Boulevard) is projected to operate at an unacceptable LOS F during the AM and PM peak hours under cumulative (2030) no project conditions. The intersection would continue to operate at LOS F after the addition of project traffic with an additional delay for 4 or more seconds. This would be a cumulatively considerable impact, and mitigation measure **MM 3.10.1a**, described in Impact 3.10.1 above, would be required. With implementation of mitigation measure **MM 3.10.1a,** the intersection would continue to operate at LOS F during both the AM and PM peak hours, but with an overall intersection delay less than the cumulative (2030) no project scenario. This would reduce the revised project's contribution to cumulative conditions to **less than cumulatively considerable with mitigation**.

Mitigation Measures

See mitigation measure **MM 3.10.1a**.

Intersection 2 – El Camino Real and McLellan Drive

Impact 3.10.6b Project traffic would cause Intersection 2 to continue operating below acceptable levels of service for the AM peak hour and would cause an increase of more than 4 seconds at the intersection. The project's contribution would be **less than cumulatively considerable with mitigation**.

As shown in **Figure 3.10-4** and **Table 3.10-9**, the intersection (El Camino Real and McLellan Drive) is projected to operate at an unacceptable LOS E during the AM peak hour under the cumulative (2030) no project condition. With project traffic, the intersection would continue to operate at LOS E and would increase delay by 4 or more seconds. This would be a cumulatively considerable impact, and mitigation measure **MM 3.10.6b** would be required. With implementation of this measure, the intersection would operate at an acceptable LOS D for the AM peak period under the cumulative (2030) plus project scenario. This would mitigate the impact, and the revised project's contribution would be **less than cumulatively considerable with mitigation**.

Mitigation Measures

MM 3.10.6b The City shall modify the signal timing at the intersection of El Camino Real and McLellan Drive to remove split phasing and optimize the cycle length in the AM peak hour. The City shall also restripe the eastbound approach on McLellan Drive to one left turn late and one shared through/right turn lane and restripe the westbound approach on McLellan Drive to one left turn lane, one shared through/right turn lane, and one right turn lane.

Intersection 4 – El Camino Real and Chestnut Avenue

Impact 3.10.6c Project traffic would cause Intersection 4 to operate at below acceptable levels of service for the AM and PM peak hours. The project's contribution would be **less than cumulatively considerable with mitigation**.

As shown in **Figure 3.10-4** and **Table 3.10-9**, the intersection (El Camino Real and Chestnut Avenue) is projected to operate at an unacceptable LOS F during the AM and PM peak hours in the cumulative (2030) no project scenario. With the addition of project traffic, the intersection is projected to continue to operate at LOS F with an added delay of 4 or more seconds. This would be a cumulatively considerable impact, and mitigation measure **MM 3.10.6c** would be required. With implementation of this measure, the intersection would continue to operate at LOS F during both the AM and PM peak hours, but with an overall intersection delay less than the cumulative (2030) no project scenario. Improvements required by the mitigation measure would likely fit in the existing right-of-way.

Additionally, South San Francisco General Plan Policy 4.2-G-14 allows for an LOS E or LOS F if there is no practical and feasible way to mitigate the impact and if the proposed uses are of clear and overall public benefit. The project objectives, detailed in Section 2.0, Project Description, include providing programs for seniors and disabled residents, as well as the improvement of emergency response times. Because the project achieves these objectives, it would create an overall public benefit. Therefore, if the intersection would continue to operate at LOS F or LOS E, the City would not consider it a significant impact. Nonetheless, the revised project's contribution to cumulative conditions would be **less than cumulatively considerable with mitigation**.

Mitigation Measures

MM 3.10.6c The City shall optimize the traffic signal cycle length in both the AM and PM peak hours. The City shall also modify traffic signal operations at the intersection of El Camino Real and Chestnut Avenue to include a right turn overlap phase for vehicles traveling eastbound on Chestnut Avenue. If feasible within the existing right-of-way, the City shall also add an eastbound left turn lane from Chestnut Avenue to El Camino Real.

Intersection 5 – El Camino Real and Orange Avenue

Impact 3.10.6d Project traffic would cause Intersection 5 to continue operating below acceptable levels of service for the AM and PM peak periods with an increase of more than 4 seconds of delay at the intersection. The project's contribution would be **less than cumulatively considerable with mitigation**.

As shown in **Figure 3.10-4** and **Table 3.10-9**, the intersection (El Camino Real and Orange Avenue) is projected to operate at an unacceptable LOS E during the AM peak hour and at an unacceptable LOS F during the PM peak hour under the cumulative (2030) no project conditions. With the addition of project traffic, the intersection would continue to operate at LOS E during the AM peak hour and LOS F during the PM peak hour with an increased delay of 4 or more seconds. This would be a cumulatively considerable impact, and mitigation measure **MM 3.10.6d** would be required.

With this improvement, the intersection would continue to operate at an unacceptable LOS E during the AM peak hour and at an unacceptable LOS F during the PM peak hour, but with a

shorter delay when compared to the cumulative (2030) no project scenario. With mitigation measure **MM 3.10.6d**, the revised project's contribution to cumulative conditions would be l**ess than cumulatively considerable with mitigation.**

Mitigation Measures

MM 3.10.6d The City shall modify the southbound lane geometry on El Camino Real to include a southbound left turn lane.

Intersection 8 – Mission Road and Oak Avenue

Impact 3.10.6e Project traffic would cause Intersection 8 to continue operating below acceptable levels of service for the AM peak period with an increase of more than 4 seconds of delay at the intersection. The project's contribution would be **less than cumulatively considerable with mitigation**.

As shown in **Figure 3.10-4** and **Table 3.10-9**, the intersection (Mission Road and Oak Avenue) would operate at an unacceptable LOS E during the AM peak hour under the cumulative (2030) no project scenario. The intersection would continue to operate at LOS E after the addition of project traffic with an added delay of 4 or more seconds. This would be a cumulatively considerable impact, and mitigation measure **MM 3.10.6e** would be required.

With implementation of this measure, the intersection would operate at an acceptable LOS D during the AM peak period. Therefore, the revised project's contribution to the overall cumulative conditions would be **less than cumulatively considerable with mitigation impact**.

Mitigation Measures

MM 3.10.6e The City shall restripe the eastbound approach of Oak Avenue to be one left turn lane and one shared through/right turn lane. The City shall restripe the westbound approach of Oak Avenue to be one left turn lane and one shared through/right turn lane. The City shall also construct a two-way left turn lane along Mission Road.

Intersection 10: Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard

Impact 3.10.6f Intersection 10 would operate below acceptable levels of service in the AM and PM peak hours under the cumulative (2030) no project scenario. The project would have **no** impact**.**

As shown in **Figure 3.10-4** and **Table 3.10-9**, the intersection (Westborough Boulevard/I-280 NB On-Ramp/Junipero Serra Boulevard) operates at an unacceptable LOS F during the AM and PM peak hours. Traffic generated by the project was found to add no traffic to the intersection and as such, would not exacerbate the traffic delay. Therefore, the revised project would have **no impact**.

Mitigation Measures

None required.

Intersection 12 – Westborough Boulevard and I-280 NB On-Ramp

Impact 3.10.6g Project traffic would cause Intersection 12 to continue operating below acceptable levels of service for the AM and PM peak periods with an increase of more than 4 seconds of delay at the intersection. The project's contribution would be **less than cumulatively considerable**.

As shown in **Figure 3.10-4** and **Table 3.10-9**, Intersection 12 (Westborough Boulevard and I-280 NB On-Ramp) would operate at an unacceptable LOS F during the AM and PM peak hours under the cumulative (2030) no project scenario. With the addition of project traffic, the intersection would continue to operate at LOS F with an added delay of 4 or more seconds. This would be a cumulatively considerable impact, and mitigation measure **MM 3.10.1d,** described under impact 3.10.1d above, would be required.

With implementation of mitigation measure **MM 3.10.1d**, the intersection would continue to operate at LOS F during both the AM and PM peak hours, but with an overall intersection delay less than the cumulative (2030) no project scenario. With mitigation measure **MM 3.10.1d**, the revised project's contribution to cumulative impacts would be **less than cumulatively considerable with mitigation**.

Mitigation Measures

Implement mitigation measure **MM 3.10.1d**.

Highway Level of Service Analysis

The results of the intersection LOS analysis, shown in **Table 3.10-10**, indicate that the project would not have a significant impact on freeway segments. With the additional project trips added to the four freeway segments, the segments would continue to operate at an acceptable level of service in the Cumulative (2030) Plus Project scenario. Therefore, the project would not have an impact on these freeway segments.

TABLE 3.10-10
CUMULATIVE (2030) AND CUMULATIVE (2030) PLUS PROJECT HIGHWAY SEGMENT LOS

Intersection	LOS Standard	Cumulative (2030)						Cumulative (2030) plus Project Conditions					
		AM Peak			PM Peak			AM Peak			PM Peak		
		Volume (veh/hr)	LOS	V/C	Volume (veh/hr)	LOS	V/C	Volume (veh/hr)	LOS	V/C	Volume (veh/hr)	LOS	V/C
I-280 NB From Avalon to Westborough	D	6,602	C	0.600	8,484	D	0.771	6,610	C	0.601	8,531	D	0.776
I-280 NB from Westborough to Hickey	D	8,541	D	0.776	9,225	D	0.839	8,582	D	0.780	9,272	D	0.843
I-280 SB from Hickey to Westborough	D	7,847	D	0.713	9,434	D	0.858	7,855	D	0.714	9,481	D	0.862
I-280 SB from Westborough to Avalon	D	8,813	D	0.801	8,223	D	0.748	8,854	D	0.805	8,270	D	0.752

3.10.6 REFERENCES

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

———. 2015. *Highway Design Manual*.

C/CAG (City/County Association of Governments of San Mateo County). 2012. *Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport.*

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South San Francisco, City of. 2011a. *El Camino Real/Chestnut Avenue Area Plan – General Plan Amendment.*

———. 2011b. *City of South San Francisco El Camino Real/Chestnut Avenue Area Plan, and associated General Plan Amendment, and Zoning Ordinance Amendment. Final Environmental Impact Report*.

———. 2011c. *Bicycle Master Plan.*

———. 2014a. *South San Francisco General Plan*.

———. 2014b. *South San Francisco Pedestrian Master Plan*.

Transportation Research Board. 2010. *Highway Capacity Manual.*

3.11 Utilities and Service Systems

This section describes utility systems in the project area and analyzes the potential for the proposed project to result in the need for new or expanded water, wastewater, storm drainage, solid waste, or energy facilities.

3.11.1 SEIR SUMMARY TABLE

A summary of the Community Civic Campus Project impact conclusions related to utilities and service systems is provided below.

Impact Number	Impact Topic	Impact Significance
3.11.1	Water supply and infrastructure	Less than significant
3.11.2	Wastewater conveyance and treatment	Less than significant
3.11.3	Storm drainage systems	Less than significant
3.11.4	Solid waste	Less than significant
3.11.5	Cumulative utilities and service systems impacts	Less than cumulatively considerable

Impacts identified in the El Camino Real/Chestnut Avenue Area Plan Environmental Impact Report (ECR/C EIR) are summarized with the project impacts in subsection 3.11.4.

3.11.2 EXISTING SETTING

WATER SUPPLY AND INFRASTRUCTURE

2011 ECR/C Area Plan Setting

Water Supply

As described in the ECR/C EIR, the potable water supply for South San Francisco is provided by California Water Service (Cal Water) and the Westborough Water District (WWD). Cal Water serves the portion of the city east of Interstate 280 (I-280), which represents a majority of the city's area, and the WWD serves the portion west of I-280. The ECR/C Area Plan is within Cal Water's South San Francisco District, which also includes Colma and the Broadmoor District. Cal Water receives water from the City and County of San Francisco's regional system operated by the San Francisco Public Utilities Commission (SFPUC). Cal Water's individual supply assurance is 35.39 million gallons per day (mgd). Acquisition of the Los Trancos County Water District in July 2005 increased Cal Water's total supply assurance allocation to 35.5 mgd. Part of this supply is used to meet the demand in the South San Francisco District. The supply assurance, which quantified San Francisco's obligation to supply water to its individual wholesale customers, continues indefinitely even if the master contract and accompanying water supply contract expire.

Cal Water serves single-family and multi-family residential, commercial, industrial, and government uses. Residential connections accounted for 85.5 percent of services. Approximately 81 percent of the 2005 demand in the South San Francisco District was associated with single-family residential (38.8 percent) and commercial (41.8 percent) uses (South San Francisco 2011b, Table 3.7-1). Data reported in the ECR/R EIR was obtained from Cal Water's 2006 Urban Water Management Plan (UWMP), which was the most current UWMP at that time.

Water Distribution Infrastructure

The existing water distribution system consists primarily of 8-, 12- and 16-inch pipelines within roadways. At the time the ECR/C Area Plan and EIR were prepared, the existing water distribution system serving the planning area for the ECR/C Area Plan was reported to generally be in good condition and able to support the development proposed in the ECR/C Area Plan without the need for major repairs or upgrades to the existing system. Extension of water mains would be required along with service connections to each new building. The need for an extension of the water main in El Camino Real from the south entry of Kaiser Hospital to Chestnut Avenue to serve the vacant land between the hospital and Chestnut Avenue, west of the BART tunnel, was identified because there is no water main in those parcels (South San Francisco 2011a, 2011b). The vacant land immediately north of Chestnut Avenue and east of El Camino Real was proposed to include a mix of primarily retail (110,600 square feet), office (73,000 square feet), and public/institutional (50,000 square feet), with some residential uses.

Current Conditions

Water Supply

Cal Water's South San Francisco District remains the current water supplier for South San Francisco, and it adopted its 2015 UWMP in June 2016. Since 2006, Interim Supply Allocations (ISAs) have been determined for San Francisco's and each individual wholesale customer's share of the Interim Supply Limitation (ISL). On December 14, 2010, the SFPUC established each agency's ISA through 2018. In general, the SFPUC based the wholesale customer allocations on the lesser of the projected fiscal year 2017–18 purchase projections or Individual Supply Guarantees (ISG). The ISAs are effective only until December 31, 2018, and do not affect the supply assurance or the ISGs. San Francisco's Interim Supply Allocation is 81 mgd. Cal Water's total ISA for the three districts in its service area is 35.68 mgd (Cal Water 2016), which is similar to 2006 conditions.

There has been little change in the distribution of services or demands by customer type since 2006. As reported in the 2015 UWMP, residential customers account for approximately 86 percent of services and 40 percent of water use, similar to previous conditions. Commercial demand is approximately 45 percent, approximately 3 percent more than 10 years ago (Cal Water 2016, Table 4-1 and Figure 4-1). Since 2006, several laws and regulations have been enacted and adopted to reduce demand (e.g., Senate Bill [SB] X7-7, CALGreen, and drought restriction requirements, among others).

The 2015 UWMP concluded that the South San Francisco District has a sufficient water supply during years under normal conditions. However, during one-year or multiyear droughts, shortfalls of up to 20 percent or more are projected. Under such conditions, Cal Water will implement its Water Shortage Contingency Plan. In recent drought years, customers were asked to reduce their demand by 8 percent as specified by the State Water Resources Control Board. The South San Francisco District exceeded this amount (20 percent reduction based on June 2015 to March 2016 totals). Cal Water is also working toward increasing the water supply portfolio for the South San Francisco District (Cal Water 2016).

Project Site Water Distribution Infrastructure

There has been no development on the vacant parcels in the eastern project site. Water distribution improvements identified in the Area Plan that would serve the eastern project site have not been constructed and would be necessary as part of the project.

WASTEWATER TREATMENT AND CONVEYANCE

2011 ECR/C Area Plan Setting

Wastewater Treatment

As described in the ECR/C EIR, all wastewater produced in South San Francisco is treated at the City's Water Quality Control Plant (WQCP), which also treats water from San Bruno. As described in the ECR/C EIR, the plant is permitted by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and has an average dry weather flow (ADWF) design capacity of 13 mgd. The permit was issued in 2008. The City has an allocation treatment capacity of 8.74 mgd. The average wastewater flow reported in the 2011 ECR/C EIR was 9.2 mgd for 2008, with average peak wet weather flows approaching 30 mgd (South San Francisco 2011b).

Sewer Infrastructure

The City operates and maintains sewer infrastructure. The planning area is served by two 18-inch trunk lines in Mission Avenue, an 18-inch trunk line in the future Oak Avenue extension, and smaller-diameter pipes that serve the existing developments at Buri Buri Center and Chestnut Center south of Chestnut Avenue. The existing 12-inch line south of Chestnut Avenue runs in an easement on private property and will need to be relocated within the parcel to accommodate new development. Existing lines in the planning area are connected to a 24-inch line at the intersection of Mission and Chestnut avenues that flows south to the treatment plant.

Current Conditions

Wastewater Treatment

Wastewater flows from South San Francisco (and San Bruno) continue to be treated at the WQCP. The WQCP's permit was renewed in 2014 by the San Francisco Bay RWQCB, and the ADWF design capacity remains at 13 mgd (San Francisco Bay RWQCB 2014). In 2016, influent flows were 8.27 mgd, which is slightly less than that reported for 2011 (Schumacker 2017). Therefore, there is still sufficient permitted influent capacity at the WQCP. The City's 2016/17 Capital Improvement Program identifies a number of sewer improvement projects, but none in the planning area (South San Francisco 2016).

Project Site Sewer Infrastructure

The western project site is fully developed and has sewer infrastructure. There has been no development on the vacant parcels in the eastern project site. Sewer improvements identified in the Area Plan that would serve the eastern project site have not been constructed and would be necessary as part of the project.

STORM DRAIN FACILITIES

2011 ECR/C Area Plan Setting

Most of the stormwater runoff in the planning area is conveyed to a network of drain inlets and pipes that discharge to Colma Creek. The planning area is largely developed with impervious surfaces (approximately 80 percent of the developable area consists of impervious surfaces such as roofs and parking), and underlying soils have low permeability, which limits infiltration. The City requires all new development and redevelopment to incorporate stormwater quality best management practices in drainage design to reduce urban pollutants discharged in stormwater to Colma Creek.

All development proposals must meet the requirements of the San Mateo County Clean Water Program, which mandates management of the quantity (as well as quality) of stormwater runoff. All new development is also required to provide stormwater control and treatment as an integral part of the site layout and landscape design. The network of open space corridors and siting of all buildings adjacent to open space will allow significant opportunities for stormwater runoff to discharge to the landscape areas for treatment, infiltration, detention, and evaporation, which will minimize the need for extensive new storm drain pipes. The use of permeable pavement will also provide opportunity for infiltration. Stormwater Control Plans, which would apply to municipal facilities, must be consistent with the Provision C.3 of San Mateo Countywide Water Pollution Prevention Program Technical Guidance Manual, which includes many options for site control and treatment of runoff.

Current Conditions

Project Site

The western project site and the parcel with an existing structure are developed with impervious surfaces such as buildings and parking areas. Runoff is conveyed to the City's storm drain system from those locations and is discharged to Colma Creek. There has been no development on the vacant parcels or storm drainage system capacity improvements on the eastern project site.

SOLID WASTE

2011 ECR/C Area Plan Setting

The ECR/C EIR stated that solid waste is collected from South San Francisco and is processed at the South San Francisco Scavenger Company [now called Blue Line] materials recovery facility and transfer station (MRF/TS). Materials that cannot be recycled or composted are transferred to the Ox Mountain Sanitary Landfill [now called Corinda Los Trancos Landfill], near Half Moon Bay. In 2008, the total amount of solid waste from South San Francisco disposed of at the landfill was 88,674 tons. As of 2011, the operator of the landfill had obtained a revised solid waste facility permit to increase permitted disposal capacity and to change the closure date of the landfill, with a longer period of operation allowed pending renewal of the permit. Evaluation of volumetric capacity (i.e., cubic yards) is an ongoing process. The ECR/C EIR noted that capacity may change depending on various factors, which may change the closure date. Waste diversion programs have reduced South San Francisco's waste stream substantially, and in 2006, the City met the state's requirement of 50 percent for waste diversion (South San Francisco 2011b).

Current Conditions

The Blue Line MRF/TS processes solid waste collected in the city. Most solid waste generated in the city continues to be disposed of at the Corinda Los Trancos Landfill. In 2015, the City disposed of approximately 81,800 tons at Corinda Los Trancos (CalRecycle 2017), which is less than in 2008. Other solid waste generated in the city was disposed of at the Newby Island Sanitary Landfill (approximately 12,800 tons). The current total maximum permitted capacity at the Corinda Los Trancos Landfill is 69 million cubic yards. As of 2015, the landfill's remaining capacity was 22.18 million cubic yards (CalRecycle 2017). As in 2011, although the existing permit expires in 2018, this does not indicate the landfill would close and would no longer accept waste after 2018. Solid waste facility permits are periodically renewed and estimates of remaining capacity are updated.

Project Site

The western project site is developed, with natural gas and electricity provided by PG&E, as described above. The high-pressure gas line and electric transmission facilities are in the eastern project site.

3.11.3 REGULATORY FRAMEWORK

FEDERAL AND STATE

The ECR/C EIR identified and described several laws and associated regulations pertaining to drinking water quality (federal Clean Water Act [CWA] and state Porter-Cologne Water Quality Control Act), wastewater discharges from wastewater treatment plants and stormwater runoff (CWA and associated National Pollutant Discharge Elimination System [NPDES] regulations), solid waste (federal Resource Conservation and Recovery Act and state California Integrated Waste Management Act and recycling requirements), and energy generation and distribution by public utility providers such as PG&E (South San Francisco 2011b).

Cal Water, the City of South San Francisco (at the Water Quality Control Plant), solid waste collection and landfill operators, and PG&E are responsible for ensuring compliance with applicable regulations at the facility level. The following summarizes state and local laws and regulations that are relevant and specific to the construction and operation of the proposed project.

STATE

Water Supply Assessments – California Water Code Section 10910

Pursuant to California Water Code Section 10910 (Senate Bill 610 [Chapter 643, Statutes of 2001]), cities and counties acting as lead agencies request that water purveyors prepare water supply assessments for certain projects (as defined in Water Code Section 10912) subject to the California Environmental Quality Act (CEQA). Projects under SB 610 are defined under Water Code Section 10912(a) as meeting specific criteria, including but not limited to proposed residential development of more than 500 dwelling units; proposed commercial, shopping center, or industrial use of certain sizes; or a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project. The water supply assessment requirements under SB 610 do not apply to area plans but only to development projects as defined in the Water Code. The project is not proposing new uses, but rather continuation and relocation of specific City functions to the planning area, and it would not result in a water demand equivalent to or greater than a 500-dwelling-unit project. As such, SB 610 does not apply. The water demand and supply planning described in Cal Water's 2015 UWMP is appropriate for the project analysis.

California Green Building Standards Code

The 2016 California Green Building Standards Code, known as CALGreen (California Code of Regulations [CCR] Title 24, Part 11), is a portion of the California Building Code (CBC), and became effective with the rest of the CBC on January 1, 2017. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. The City of South San Francisco has adopted the 2016 CALGreen regulations by reference (Municipal Code Section 15.22.010).

California Energy Code

The 2016 California Energy Code (Building Energy Efficiency Standards, CCR Title 24, Part 6), a portion of the CBC, expands upon energy efficiency measures from the 2013 Building Energy Efficiency Standards, resulting in a 28 percent reduction in energy consumption from the 2013 standards for residential structures. Energy reductions relative to previous Building Energy Efficiency Standards would be achieved through various measures including requirements for the use of high-efficiency lighting, improved water heating system efficiency, and high performance attics and walls. The City of South San Francisco has adopted the 2016 California Energy Code regulations by reference (Municipal Code Section 15.26.010).

Solid Waste Diversion

Assembly Bill (AB) 939, the California Integrated Waste Management Act enacted in 1997, mandated that all jurisdictions in the state divert at least 50 percent of solid waste by 2000 through source reduction, composting, and recycling activities. In 2011, Governor Brown signed AB 341 (Chesbro, Chapter 476, Statutes of 2011), which established a policy goal for the state that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020. AB 341 requires businesses that generate 4 or more cubic yards of waste per week to recycle, among other requirements. AB 1826 (Chesbro, Chapter 727, Statutes of 2014), signed by Governor Brown in 2014, establishes requirements for businesses to recycle their organic waste, depending on the amount generated per year. South San Francisco has implemented these policies through programs run by the South San Francisco Scavenger Company.

REGIONAL

Municipal Regional Stormwater Permit

South San Francisco is one of 20 cities in San Mateo County that, together with other jurisdictions in Alameda, Contra Costa, and Santa Clara counties, are regulated under Joint Municipal NPDES Permit Municipal Regional Stormwater Permit [MRP] No. CAS612008 Order No. R2-2015-0049 issued by the San Francisco Bay Regional Water Quality Control Board. Implementation of the MRP requirements in San Mateo County are administered and monitored through the San Mateo Countywide Water Pollution Prevention Program.[1] The reader is referred to Section 3.8, Hydrology and Water Quality, for additional information on the MRP and the County program.

LOCAL

City of South San Francisco General Plan

The General Plan policies that are relevant to the proposed project related to utilities and service systems are listed below.

5.3-G-l Promote the orderly and efficient operation and expansion of the water supply system to meet projected needs.

5.3-G-2 Encourage water conservation measures for both existing and proposed development.

[1] Formerly called the San Mateo Countywide Storm Water Pollution Prevention Program (STOPPP).

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.

5.3-I-1 Work with California Water Service Company and Westborough County Water District to ensure coordinated capital improvements with respect to the extent and timing of growth.

5.3-G-4 Promote the orderly and efficient operation and expansion of the wastewater system to meet projected needs.

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.

8.3-I-1 Continue to work toward reducing solid waste, increasing recycling, and complying with the San Mateo County Integrated Waste Management Plan.

City of South San Francisco Municipal Code

Municipal Code, Title 8, Health and Welfare, Chapter 8.28, Recyclable Materials, sets forth standards regarding separation of recyclables for collection. Title 15, Building and Construction, establishes diversion and recycling requirements. The City of South San Francisco is mandated by the State of California to divert 65 percent of all solid waste from landfills either by reusing or recycling. To help meet this goal, as it relates to demolition activities, the City requires completion of a waste management plan for covered building projects identifying how at least 65 percent of non-inert project waste materials and 100 percent of inert materials (65/100) will be diverted from the landfill through recycling and salvage.

El Camino Real/Chestnut Avenue Area Plan

The Area Plan contains the following policies that are applicable to the analysis of utilities and service systems:

UD-7 Ensure that development incorporates green building and site design measures such as energy-efficient building design, passive heating/cooling strategies, permeable paving, low-water-consumption planting, and stormwater management.

DG-40 Extensive and Intensive green roofs will manage stormwater runoff, reduce energy consumption through insulation, and provide common open space for residential units. Soil layers are typically two to six inches deep for Extensive roofs and eight to 24 inches deep for Intensive roofs, depending on the loading capacity of the roof and the architectural and plant features desired. All green roofs must be designed to permit routine maintenance and irrigation as necessary.

3.11.4 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

This analysis evaluates the project's impacts from utilities and service systems based on the standards identified in CEQA Guidelines Appendix G. The impact analysis also considers CEQA Guidelines Appendix F pertaining to energy conservation. A utilities and service systems impact is considered significant if the project would:

1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

2) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

3) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements be needed.

5) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

6) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

7) Be noncompliant with federal, state, and local statutes and regulations related to solid waste.

For purposes of the analysis, "wasteful" and "inefficient" are circumstances in which the proposed project would conflict with applicable state or local energy legislation, policies, and standards, or result in increased per capita energy consumption.

Changes in the CEQA Guidelines

There have been no changes in the CEQA Guidelines since 2011 that are relevant to the analysis of utilities and service systems impacts.

METHODOLOGY

The following qualitative impact analysis is based on a review of the analysis completed in the project area for the ECR/C EIR, supplemented with current information from utility providers.

PROJECT IMPACTS AND MITIGATION MEASURES

Water Supply and Infrastructure (Standards of Significance 2 and 4)

Impact 3.11.1 Project occupancy would use potable water and would require connections to the existing water distribution infrastructure. This impact would be **less than significant**.

ECR/C Area Plan Impacts

The ECR/C EIR stated that the population growth associated with the El Camino Real/Chestnut Avenue Area Plan (a combination of residential and nonresidential) uses would increase the demand for water in the Cal Water Service area, but such growth would be within the UWMP projections. The vacant land immediately north of Chestnut Avenue and east of El Camino Real was proposed to include a mix of primarily retail (110,600 square feet), office (73,000 square feet), and public/institutional (50,000 square feet) with some residential uses. The ECR/C EIR concluded that the Area Plan would not require additional water supply beyond that available from existing entitlements and resources, as planned for in the 2006 UWMP, and impacts would be less than significant (South San Francisco 2011b).

The ECR/C Area Plan and EIR acknowledged the need for the extension of water distribution infrastructure for the planning area, including a water main extension in El Camino Real between Kaiser Hospital and Chestnut Avenue to serve the vacant land between the hospital and Chestnut Avenue (South San Francisco 2011a, 2011b). However, major repairs or upgrades were determined not to be necessary, and impacts on distribution system capacity were identified as less than significant (South San Francisco 2011b).

Subsequent Project Impacts

The proposed project would result in the replacement and expansion of the existing Fire Station No. 63 in its current location on the western project site. The fire station would not be a new use, and the increase, if any, in water demand for station operation would be minimal. The new fire station would likely result in a decrease in water demand compared to the existing station even though it would be larger in size because the new facility would be required to incorporate water-saving devices in accordance with CALGreen regulations. There is existing water distribution infrastructure serving the fire station and the adjacent Municipal Services Building.

On the eastern project site, the proposed Community Civic Campus would be a new use and would include a joint Library and Recreation Center, and Police Station with office space for the City's Information Technology (IT) and Human Resources (HR) staff. The proposed library would be a relocation of the existing city library and would result in an increase in library square footage. The Recreation Center portion of the facility would be a new use. Combined, the joint Library and Recreation Center would total up to 92,000 square feet. These elements would result in indoor potable water use, primarily associated with restrooms and kitchen facilities, and outdoor potable water use for landscaping. While there may be more staff and patrons at the new Community Center and Library compared to the number at existing City facilities, this increase would not represent new resident population growth not previously accounted for in the 2016 UWMP. The new joint Library and Recreation Center would incorporate water-saving features, which would reduce demand as required by regulations, as well as ensure compliance with Area Plan Policy UD-7. The Police Station with office space for the City's IT and HR staff would be a new building to accommodate existing City uses housed elsewhere in South San Francisco. Changes in water demand, if any, would be negligible associated with staff and visitor uses at the new building. The increased demand for water on the eastern project site, if any, would be minimal and would not require new supplies or entitlements.

As noted above, existing water distribution infrastructure may require upgrades and potentially a new water line within El Camino Real. New, smaller distribution pipes would also be evaluated to ensure the pipes are sized for sufficient capacity and pressure to meet fire flow requirements for each building. The need for these improvements was identified in the ECR/C Area Plan, and potential impacts associated with their construction were evaluated in the ECR/C EIR. The proposed project would not result in any new or more severe impacts related to water distribution line improvements than previously identified and would not require new or expanded water infrastructure. Water supply and distribution impacts would be continue to be **less than significant**.

Mitigation Measures

None required.

Wastewater Conveyance and Treatment (Standards of Significance 1, 2, and 5)

Impact 3.11.2 Project occupancy would generate wastewater and would require connections to existing sewer infrastructure. The impact would be **less than significant**.

ECR/C Area Plan Impacts

The ECR/C EIR estimated residential wastewater demand only, explaining that such demand would be a function of substantially greater water use as compared to commercial uses. The ECR/C EIR concluded that there would be adequate capacity at the Water Quality Control Plant to accommodate flows from future development in the Area Plan. While new sewer lines would be needed for new development, major expansion of off-site infrastructure would not be required because the resulting increase in flows would be a small fraction of the capacity of the trunk lines that serve the planning area. Impacts on wastewater treatment and capacity were determined to be less than significant (South San Francisco 2011b).

Subsequent Project Impacts

Wastewater generated by the expanded Fire Station No. 63, the Joint Library and Recreation Center, and the Police Station with office space for the City's IT and HR staff would be minimal because potable (indoor) water demand would not increase substantially, if at all, as explained in the discussion of Impact 3.11.1. There would be no residential uses associated with the project. As such, the proposed project would not result in a substantial increase in demand for wastewater treatment or conveyance such that new or expanded collection and treatment facilities would be required. The physical and chemical characteristics of sewer flows to the WQCP would be similar to the domestic-type flows that are currently generated at existing City public facilities; therefore, the project would not cause violations of WQCP permit requirements.

The ECR/C Area Plan indicated that additional smaller sewer lines would be needed to serve each new development area, but major off-site infrastructure would not be required because the increase in flows from new development and intensification of existing developed areas would be a very small fraction of the total capacity of the existing collection pipes serving the planning area. In addition, new building codes mandate low-flow fixtures and the advancement of sustainable design practices such as reuse of greywater for irrigation and other non-potable uses; these features would decrease the total amount of wastewater discharge from the planning area (South San Francisco 2011a, 2011b).

The need for local sewer line improvements was identified in the ECR/C Area Plan, and potential impacts associated with their construction were evaluated in the ECR/C EIR. The proposed project would not result in any new or more severe impacts related to wastewater than previously identified and would not require new or expanded wastewater infrastructure. Impacts would continue to be **less than significant**.

Mitigation Measures

None required.

Storm Drain Systems (Standard of Significance 3)

Impact 3.11.3 The project would result in stormwater runoff and would require connections to existing infrastructure. This impact would be **less than significant**.

ECR/C Area Plan Impacts

The ECR/C EIR stated that the planning area is largely covered with impermeable surfaces. As noted in the ECR/C Area Plan, the existing and future storm drain system discharges into the Colma Creek canal, and an increase in stormwater flows and accompanying major infrastructure improvements is not anticipated. The addition of the community park, as well as other open spaces, would likely improve runoff in the area (South San Francisco 2011a). New projects would be subject to incentives and guidelines to include plazas and open spaces with permeable surfaces in project design to potentially decrease on-site stormwater runoff. The ECR/C EIR concluded that with implementation of these measures, the capacity of the storm drain system would not be exceeded, and impacts would be less than significant (South San Francisco 2011b).

Subsequent Project Impacts

The new Fire Station 63, which would replace the existing fire station, would not result in an increase in impervious surfaces that would affect storm drain system capacity. The vacant portion of the eastern project site was assumed to be developed with buildings, sidewalks, paving, hardscaping, and other features that would increase surface runoff, but plazas and landscaping which would help reduce runoff in that area would also be a component of future design. The project would result in a smaller overall building footprint in Blocks D, E, F, and G compared to the approved ECR/C Area Plan concept, which would reduce the amount of runoff from building rooftops compared to the approved plan. In addition, the proposed project includes and emphasizes outdoor use areas, which provide greater opportunities for the creation of permeable surfaces, thus reducing runoff.

While the project would contribute flows to the storm drain system, it would not result in new increases not previously anticipated. New development in the project area would also be required to implement stormwater runoff reduction measures as directed under Area Plan Policy DG-40 and in compliance with the Provision C.3 of the San Mateo Countywide Water Pollution Prevention Program Technical Guidance Manual. As noted in the ECR/C Area Plan, an increase in stormwater flows and accompanying major infrastructure improvements was not anticipated for the planning area. The project would not result in any new or more severe impacts related to storm drain capacity than previously identified and would not require new or expanded storm drainage infrastructure. Impacts would continue to be **less than significant**.

Mitigation Measures

None required.

Solid Waste (Standards of Significance 6 and 7)

Impact 3.11.4 The proposed project would generate solid waste. This impact would be **less than** significant.

ECR/C Area Plan Impacts

The ECR/C EIR estimated that the Area Plan would generate approximately 16.1 tons of solid waste and that the addition of this waste could be accommodated under the existing permitted capacity at the Ox Mountain Sanitary Landfill. The ECR/C EIR also noted that diversion rates would likely continue, resulting in less solid waste that would need to be landfilled, and that General Plan policies addressed the need for solid waste reduction. Impacts were determined to be less than significant (South San Francisco 2011b).

Subsequent Project Impacts

Replacement of Fire Station 63 would not be a new use, and occupancy of the new space would continue to generate solid waste, similar to existing conditions. Some demolition waste would be generated, and debris would be required to be recycled or diverted in accordance with the City's Municipal Code, which would reduce the amount of demolition waste that would be landfilled.

On the eastern project site, the proposed joint Library and Recreation Center would be a new use. The recreation center portion of the facility would be a new use, but the relocated library would be a continuation of an existing use within the community. While there may be more staff and patrons at the new joint Library and Recreation Center compared to the number at existing City facilities, this increase would not result in a substantial change in solid waste generation compared to the estimate in the ECR/C EIR. The Police Station with office space for the City's IT and HR staff would be a new building to accommodate existing City uses housed elsewhere in South San Francisco. As such, there would be no substantial change in solid waste generation. Solid waste requiring landfill disposal would be reduced compared to 2011 with continued implementation of the City's recycling programs and state mandates for increased diversion. With the enactment of newer legislation requiring additional increases in diversion (e.g., AB 341 and AB 1826), it is anticipated that solid waste requiring landfill disposal would be further reduced. The project would not result in any new or more severe impacts related to solid waste landfill capacity than previously identified. Impacts would continue to be **less than significant**.

Mitigation Measures

None required.

3.11.6 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The ECR/C EIR defined the cumulative setting for the analysis of utilities and service systems impacts as development of the Area Plan through 2030 concurrent with development in the region (South San Francisco 2011b).

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Utilities and Service System Impacts

Impact 3.11.5 The project, in combination with regional development, would increase the demand for utilities and service systems, but the project's contribution would be **less than cumulatively considerable**.

2011 ECR/C Area Plan Impacts

The ECR/C EIR concluded that there would be enough water, wastewater, storm drainage, and solid waste capacity to accommodate growth under the Area Plan and regional growth and therefore cumulative impacts would not be significant (South San Francisco 2011b).

Subsequent Project Impacts

The proposed project would contribute to the demand for water supply and infrastructure, wastewater treatment and infrastructure, storm drainage infrastructure, solid waste disposal and landfill capacity. However, as explained in the discussions of Impacts 3.11.1, 3.11.2, 3.11.3, and 3.11.4, the project would not result in a demand for these services or new or expanded facilities not previously identified. It is also anticipated that the demand for these utility systems would decrease through energy-efficient design (water, wastewater), recycling and diversion requirements (solid waste), and project stormwater design features as required by the Provision C.3 requirements of the San Mateo Countywide Water Pollution Prevention Program, relative to 2011 conditions. The revised project's impacts would continue to be **less than cumulatively considerable**.

Mitigation Measures

None required.

3.11.6 REFERENCES

CalRecycle (California Department of Resources Recycling and Recovery). 2017. Disposal Reporting System (DRS) Jurisdiction Disposal by Facility. Search criterion: South San Francisco.

Cal Water (California Water Service). 2016. *South San Francisco District Urban Water Management Plan.*

San Francisco Bay RWQCB (Regional Water Quality Control Board). 2014. Order No. R2-2014-0012, NPDES No. CA0038130. Waste Discharge Requirements.

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4.0 – ALTERNATIVES

4.1 INTRODUCTION

California Environmental Quality Act (CEQA) Guidelines Section 15126.6(a) requires that an environmental impact report (EIR) describe and analyze a range of reasonable alternatives to a project. These alternatives should feasibly attain most of the basic project objectives while avoiding or substantially lessening one or more of the significant project environmental impacts. An EIR need not consider every conceivable alternative to a project, nor is it required to consider alternatives that are infeasible. The discussion of alternatives shall focus on those alternatives which are capable of avoiding or substantially lessening any significant effects of the project, even if they impede the attainment of the project objectives to some degree or would be more costly (CEQA Guidelines Section 15126.6[b]).

According to the CEQA Guidelines, an EIR need only examine in detail those alternatives that could feasibly meet most of the basic project objectives. When addressing feasibility, CEQA Guidelines Section 15126.6 states that "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the applicant can reasonably acquire, control or otherwise have access to alternative sites." The CEQA Guidelines also specify that the alternatives discussion should not be remote or speculative; however, the alternatives need not be presented in the same level of detail as the assessment of the project.

The CEQA Guidelines indicate that several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include (1) the nature of the significant impacts of the project; (2) the ability of alternatives to avoid or lessen the significant impacts associated with the project; (3) the ability of the alternatives to meet the objectives of the project; and (4) the feasibility of the alternatives. These factors would be unique for each project.

The project's significant environmental impacts that the alternatives seek to eliminate or reduce were determined and based on the findings contained in each technical section (Sections 3.1 through 3.11) of this Draft SEIR.

In this section, "project" refers to the Community Civic Campus Project as described in Section 2.0, Project Description.

PROJECT OBJECTIVES

The City of South San Francisco has identified several objectives or goals to be achieved through project implementation:

- Maintain public safety and essential services.
- Improve emergency response times, neighborhood patrols, crime prevention programs, and gang suppression programs.
- Provide programs for seniors and disabled residents.

4.2 ALTERNATIVES UNDER CONSIDERATION

Three alternatives were identified for examination and analysis in this Draft SEIR:

- Alternative 1 – No Project Alternative/Continuation of the Existing ECR/C Area Plan
- Alternative 2 – Surface Parking Only Alternative
- Alternative 3 – Underground Parking Alternative

These alternatives constitute an adequate range of reasonable alternatives as required under CEQA Guidelines Section 15126.6.

ALTERNATIVES CONSIDERED BUT NOT SELECTED FOR ANALYSIS

CEQA Guidelines Section 15126.6(c) requires an EIR to identify alternatives that were considered by the lead agency but were rejected as infeasible. Alternatives 1 through 3, described below, were the only alternatives considered. No other alternatives were considered and rejected as infeasible.

4.3 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE/CONTINUATION OF THE EXISTING ECR/C AREA PLAN

ALTERNATIVE DESCRIPTION

CEQA Guidelines Section 15126.6(e)(2) requires an EIR to include an analysis of the No Project Alternative. Evaluation of this alternative allows decision-makers to compare the impacts of approving the project with the impacts of not approving it. Under the No Project Alternative, uses on the project site would continue as originally envisioned in the El Camino Real/Chestnut Avenue (ECR/C) Area Plan. The plan contained an illustrative vision for the area and divided the majority of the planning area into 10 development blocks, designated block A through block J. The illustrative vision was used to determine probable environmental impacts of development in the planning area. Each block was envisioned with planned amounts of retail space, office space, public uses, residential units, and parking spaces.

The western project site is located outside of the specified development blocks. It contains the existing Municipal Services Building and a parking lot. For the No Project Alternative, it is assumed that these uses would remain the same.

The eastern project site would be located on development blocks D, E, F, and G, detailed below.

- Block D would contain a mix of retail space, a two-story parking structure, and residential units. Residential units would include townhouses, low-rise units, and tower residential units. The development would include two towers, the taller of which would be 10 stories tall.
- Block E would contain retail space, two levels of underground parking, and residential units. Residential units would be a mix of townhouses and tower units. A 10-story tower would be present on the block.
- Block F would contain a relocated South San Francisco Library as well as library space. The block would contain at-grade parking.
- Block G would contain a 6-story office building and retail space, with one level of underground parking.

Cumulatively, under the ECR/C Area Plan these blocks were projected to contain a combined 110,600 feet of retail space, 73,000 square feet of office space, a 50,000-square-foot library, 289 residential units, and 866 parking spaces. This represents a higher intensity of development than the project, as Alternative 1 would construct taller buildings with more square feet of development and more parking spaces than the project. For purposes of this analysis, it was assumed that the project site would be developed in accordance with the existing ECR/C Area Plan land use designations and would follow the illustrative vision of the ECR/C Area Plan.

The planning blocks discussed above did not cover the entire ECR/C planning area. In areas outside of the 10 development blocks, it is assumed that the ECR/C Area Plan envisioned the current uses to continue into the future.

ENVIRONMENTAL ANALYSIS

The following analysis is based on the environmental impacts identified in Sections 3.1 through 3.11 of this Draft SEIR. Each subsection below presents a brief discussion of Alternative 1's potential impacts on the respective resource area as compared to the project. The analysis is based on a qualitative method; where available, approximate data is presented.

Aesthetics

Western Project Site

Under Alternative 1, there would be no change to the western project site. There would be no demolition of the Municipal Services Building, and no development of a fire station would occur. As such, there would be no change to the western project site's aesthetic and visual character from the current baseline.

Eastern Project Site

The eastern project site would be developed as envisioned in the ECR/C Area Plan. Each development block would contain multi-story buildings with a mix of retail space, office space, residential townhouses, public space, and low-rise and high-rise apartment buildings.

Scenic Vistas

Similar to the project, Alternative 1 would comply with height limits and the design guidelines in the ECR/C Area Plan, lowering potential impacts to a scenic vista to less than significant. However, Alternative 1 would have a greater impact due to the higher intensity of development and taller buildings than the project.

State Scenic Highway

Alternative 1 is not located near a state scenic highway. Therefore, neither the alternative nor the project would have impacts on visual resources in a state scenic highway.

Visual Character

The visual character of the site would be altered from the vacant lot to a developed multi-use retail and high-density residential area. The area's visual character would be improved, as the development standards established in the ECR/C Area Plan would be implemented. Similar to the project, Alternative 1 would have a less than significant impact on the visual character of the area.

Nighttime Lighting and Glare

Construction of Alternative 1 would be required to comply with the City's Zoning Ordinance, which sets standards controlling outdoor artificial lighting and minimizing impacts from nighttime lighting. Usage of building materials as outlined in the design guidelines would minimize the glare impacts of Alternative 1 and reduce the impact to less than significant. However, Alternative 1 would include several 10-story buildings and would develop a greater amount of square footage than the project. Therefore, Alternative 1 would generate more nighttime light and daytime glare impacts due to the increased development than the project.

Under both the project and Alternative 1, there are no significant impacts on aesthetics. However, Alternative 1 would have greater impacts due to increased impacts on scenic vistas and an increase in nighttime lighting and glare impacts on the eastern project site.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.1.1	Have a substantial adverse effect on a scenic vista	Less than significant	Less than significant
3.1.2	Substantially damage scenic resources within a state scenic highway	No impact	No impact
3.1.3	Have a substantial adverse effect on the existing visual character site and its surroundings	Less than significant	Less than significant
3.1.4	Create a substantial new source of light or glare	Less than significant	Less than significant
3.1.5	Cumulative impacts to visual resources and aesthetics	Less than cumulatively considerable	Less than cumulatively considerable

Air Quality

Western Project Site

Under Alternative 1, there would be no construction or development on the western project site. Emissions impacting air quality would remain similar to the current baseline. As such, there would be no impacts as they relate to air quality.

Eastern Project Site

The eastern project site would be developed as described above. Under Alternative 1, the proposed square footage is much higher than the project. Alternative 1 would construct 233,600 square feet of retail, office, and public space, plus 289 residential units, while the project would construct up to 143,250 square feet of public space and no residential units.

2017 Clean Air Plan and Air Quality Standards

Due to the higher intensity of development, construction-related generation of criteria air pollutants would be higher than the project. Alternative 1's operational emissions of criteria air pollutants would also be higher than the project. The combination of retail, housing, and public land uses would generate more vehicle traffic, increasing mobile sources of air pollution under Alternative 1. However, as analyzed in the ECR/C EIR, the plan would have a less than significant impact and would not violate air quality standards. As such, Alternative 1 would have a less than significant impact on implementation of the 2017 Clean Air Plan and the violation of air quality standards.

Sensitive Receptors

As analyzed in the ECR/C EIR, Alternative 1 would have a less than significant impact on sensitive receptors.

Generation of Odors

Like the project, Alternative 1 would not construct a new long-term source of odorous emissions and would have a less than significant impact.

Under the project, impacts on air quality were found to be less than significant. Due to increased emissions from construction and operation, Alternative 1 would have higher emissions than the proposed project and therefore a greater impact on air quality compared to project.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.2.1	Conflict with or obstruct implementation of the 2017 Clean Air Plan	Less than significant	Less than significant
3.2.2	Violate an air quality standard or contribute substantially to an air quality violation during short- or long-term operations	Potentially significant	Less than significant with mitigation
3.2.3	Expose sensitive receptors to substantial pollutant concentrations	Less than significant	Less than significant with mitigation
3.2.4	Expose sensitive receptors to odorous emissions	Less than significant	Less than significant
3.2.5	Cumulative air quality impacts	Less than cumulatively considerable	Less than cumulatively considerable

Biological Resources

Western Project Site

Under Alternative 1, there would be no change at the western project site. The Municipal Services Building would remain intact, and no construction or renovation would occur. As such, there would be no impacts as they relate to biological resources.

Eastern Project Site

The eastern project site would be developed as described above.

Special-Status Species and Migratory Birds

Alternative 1 would require the removal of large eucalyptus trees, thus potentially impacting nesting raptors, migrating birds, and special-status bats. Therefore, this alternative would require the same mitigation measures as the project. With the implementation of mitigation measures **MM 3.3.1a** through **MM 3.3.1f,** Alternative 1 would have a less than significant impact on migratory birds and special-status species**.**

Riparian Habitat and Wetlands

The eastern project site has no riparian areas or federally protected wetlands. Therefore, Alternative 1, similar to the project, would have no impact on these resources.

Under the project and Alternative 1, all significant impacts on biological resources would be mitigated to a less than significant level. Impacts on biological resources under Alternative 1 would be the same as the project.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.3.1	Candidate, sensitive, or special-status plant or animal species	Less than significant with mitigation	Less than significant with mitigation
3.3.2	Riparian habitat or sensitive natural communities	No impact	No impact
3.3.3	Wetlands or waters of the United States	No impact	No impact
3.3.4	Wildlife movement	No impact	No impact
3.3.5	Conflict with local policies	Less than significant	Less than significant
3.3.6	Conservation plans	No impact	No impact
3.3.7	Special-status species populations	Less than significant with mitigation	Less than significant with mitigation
3.3.8	Cumulative biological resources impacts	Less than cumulatively considerable with mitigation	Less than cumulatively considerable with mitigation

Cultural Resources

Western Project Site

Under Alternative 1, there would be no change to the western project site. The Municipal Services Building would remain intact, and no ground-disturbing activities would occur. As such, there would be no impacts as they relate to cultural resources.

Eastern Project Site

The eastern project site would be developed as described above. Alternative 1 construction, similar to the project, would include ground-disturbing activities. As described in Section 3.4, Cultural Resources, of this Draft SEIR, ground-disturbing activities could disturb previously unidentified cultural resources.

Unknown Cultural Resources

Alternative 1 would require a greater amount of ground-disturbing activities on the eastern project site due to the greater intensity of development and the development of underground parking. As such, mitigation measures **MM 3.4.2a** through **MM 3.4.2c** and **MM 3.4.3** would be required. With implementation of these mitigation measures, Alternative 1 would have a less than significant impact on cultural resources.

Under the project and Alternative 1, all significant impacts on cultural resources would be mitigated to a less than significant level. However, due to the greater amount of ground-disturbing activities on the eastern project site, Alternative 1 would have a greater impact on cultural resources than the project.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.4.1	Adverse effect on historic resources	Less than significant	Less than significant
3.4.2	Adverse effect on archaeological resources	Less than significant with mitigation	Less than significant with mitigation
3.4.3	Adverse effect on paleontological resources	Less than significant with mitigation	Less than significant with mitigation
3.4.4	Adverse effect on human remains	Less than significant	Less than significant
3.4.5	Cumulative impacts on cultural resources	Less than cumulatively considerable with mitigation	Less than cumulatively considerable with mitigation

Geology and Soils

Western Project Site

Under Alternative 1, there would be no construction or development on the western project site. The existing structures would remain on the western project site, which as discussed in Section 3.5, Geology and Soils, are located in an area known for seismic activity. As such, people and structures would be exposed to seismic risk. As discussed in the ECR/C EIR, Area Plan implementation would have a less than significant impact as it relates to seismic ground shaking and associated risks. As such, Alternative 1 would have a less than significant impact. Additionally, there would be no ground disturbance under this alternative. Therefore, Alternative 1 would have no impact on soil erosion on the western project site.

Eastern Project Site

Seismic Risk

As described in Section 3.5, the project site is in a region known for its seismic activity and would experience strong ground shaking from earthquakes on regional or local faults. However, Alternative 1, similar to the project, would be required to comply with the California Building Code. Compliance with the building standards in the California Building Code and contained in Title 24 of the California Code of Regulations would protect against building collapse and major injury. Therefore, Alternative 1 impact, similar to the project, would have a less than significant impact.

Expansive Soils

The proposed Alternative 1 elements would be developed in an area with highly expansive soils, similar to the project site. As such, Alternative 1, similar to the project, would require mitigation measure **MM 3.5.2,** which would reduce any potential project impacts to less than significant.

Soil Erosion

Alternative 1 would have a greater intensity of development and would include underground parking. As such, the alternative would have a greater impact on site soils and soil erosion than the project. Nonetheless, as outlined in the ECR/C EIR, impacts on soil erosion would be less than significant, similar to the project.

Under the project, significant impacts on geology and soils would be mitigated to a less than significant level. Alternative 1 would have a greater impact due to potential soil erosion, so overall, Alternative 1 impacts would be similar to the project.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.5.1	Fault rupture	Less than significant	Less than significant
3.5.2	Ground shaking and liquefaction	Less than significant with mitigation	Less than significant with mitigation
3.5.3	Soil erosion	Less than significant	Less than significant
3.5.4	Located on expansive soil, or unstable soil that could result in landslide, lateral spreading, subsidence, liquefaction, or collapse	Less than significant with mitigation	Less than significant with mitigation
3.5.5	Cumulative geologic and soil hazards	Less than cumulatively considerable	Less than cumulatively considerable

Greenhouse Gases and Climate Change

Western Project Site

Under Alternative 1, there would be no construction or development on the western project site; therefore, greenhouse gas (GHG) emissions would remain similar to the current baseline. As such, there would be no impacts as they relate to GHG emissions due to construction on the western project site.

Eastern Project Site

The eastern project site would be developed as described above. Under Alternative 1, the proposed square footage would be greater than with the project. Alternative 1 would construct 233,600 square feet of retail, office, and public space, plus 289 residential units, while the project would construct up to 143,250 square feet of public space and no residential units.

Generation of GHG Emissions

Due to the higher intensity of development, construction-related generation of GHG emissions would be greater than the project. The larger scale of the development would use more energy to heat and cool the new buildings. Additionally, the combination of retail, housing, and public land uses would generate more vehicle traffic, increasing mobile source GHG emissions under Alternative 1. As such, operational GHG emissions under this alternative would also be greater than the project. Nonetheless, as outlined in the ECR/C EIR, the overall plan development would have a less than significant impact as it relates to GHG emissions. As such, Alternative 1, similar to the project, would have a less than significant impact due to GHG emissions.

Compliance with Applicable GHG Plans

As described above, Alternative 1 would potentially generate higher GHG emissions during construction and operations. Nonetheless, similar to the project, Alternative 1 would encourage alternative transportation options and concentrate development in areas designated for future growth by Plan Bay Area. Therefore, Alternative 1, similar to the project, would have a less than cumulatively considerable impact relative to applicable plans.

Under the project, GHG emissions were found to be less than significant. Due to increased emissions from construction and operation, Alternative 1 would have a potentially significant, and therefore greater, impact due to generation of GHG emissions than the project.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.6.1	Generation of greenhouse gas emissions	Less than significant	Less than significant
3.6.2	Compliance with the applicable GHG reduction plan	Less than cumulatively considerable	Less than cumulatively considerable

Hazards and Hazardous Materials

Western Project Site

Under Alternative 1, there would be no change to the western project site, and project site soils would not be disturbed. The Municipal Services Building would remain intact, and no ground-disturbing activities would occur. As such, there would be no impacts as they relate to hazards and hazardous materials on the western project site.

Eastern Project Site

The eastern project site would be developed as described above. Both the project and Alternative 1 would involve the use of hazardous materials during demolition, construction, and operation.

Hazardous Materials Use

Alternative 1 would abide by the laws governing the handling of hazardous materials, as described in Section 3.7, Hazards and Hazardous Materials, similar to the project. As such, any impacts related to the usage and transport of hazardous materials would be reduced to a less than significant level.

Unknown Contamination

As described in Section 3.7, the project, and thus Alternative 1, are located in an area with the potential for contamination from historic uses. Alternative 1 would disturb more soil than the project due to its greater intensity of development and the construction of an underground parking lot. Alternative 1 would implement similar measures as the project. With implementation of mitigation measures **MM 3.7.2a** and **MM 3.7.2b**, impacts would be reduced to a less than significant level. Under Alternative 1, demolition of existing buildings could have the potential to encounter hazardous materials. If these materials are present in amounts that are subject to regulation, demolition may not proceed until the hazards have been abated. Similar to the project, Alternative 1 would have a less than significant impact on hazardous materials in building materials.

Under the project and Alternative 1, impacts related to hazards and hazardous materials would be mitigated to a less than significant level. However, due to the greater amount of ground-disturbing activities on the eastern project site, Alternative 1 would have a greater impact on hazards and hazardous materials than the project.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.7.1	Hazardous materials use	Less than significant	Less than significant
3.7.2	Cortese List sites and potential for environmental contamination	Less than significant with mitigation	Less than significant with mitigation
3.7.3	Hazardous building materials	Less than significant	Less than significant
3.7.5	Cumulative hazardous materials impacts	Less than cumulatively considerable	Less than cumulatively considerable

Hydrology and Water Quality

Western Project Site

Under Alternative 1, there would be no change to the western project site. There would be no ground disturbance, and no impacts on water quality would occur. As such, there would be no impacts as they relate to hydrology and water quality.

Eastern Project Site

The eastern project site would be developed as described above. Compared to the project, Alternative 1 would involve a greater amount of soil-disturbing activities and would add more impermeable surface to the project site due to its greater intensity of development and the construction of an underground parking lot. However, as concluded in the ECR/C EIR, development of Alternative 1 and the project would be subject to review and approval by the City Engineer and the City's Stormwater Coordinator.

Alternative 1 and the project would also be required to submit a stormwater pollution and prevention plan (SWPPP) and an erosion control plan to the City Engineer and the Water Quality Control Division prior to the commencement of any grading or construction. With adherence to these standards and federal, state, and local laws, policies, and standards in the General Plan and Municipal Code, Alternative 1 and the project would have a less than significant impact on hydrology and water quality.

There would be no significant impacts on hydrology and water quality resulting from the project or Alternative 1. However, overall impacts under Alternative 1 would be greater compared to the project due to an increased amount of soil-disturbing activities and the addition of a greater amount of impermeable surface.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.8.1	Water quality standards	Less than significant	Less than significant
3.8.2	Cumulative stormwater runoff and water quality	Less than cumulatively considerable	Less than cumulatively considerable

Noise

Western Project Site

Under Alternative 1, there would be no change to the western project site. All noise-generating activities would remain similar to the current baseline, and no additional impact would occur. As such, there would be no impacts as they relate to noise.

Eastern Project Site

The eastern project site would be developed as described above.

Noise Standards

Construction under Alternative 1 would be similar to the project and would not exceed noise standards as established by the South San Francisco Municipal Code. Ambient noise levels under Alternative 1 would not increase over levels analyzed in the ECR/C EIR, which found impacts from ambient noise levels to be less than significant. However, due to the increase in development intensity under Alternative 1, the increase in ambient noise level would be greater than the project.

Groundborne Vibration

Construction of Alternative 1 would expose neighboring structures to vibration, but exposure would be temporary and less than significant.

Under both the project and Alternative 1, there are no significant impacts pertaining to noise. However, Alternative 1 would have greater impacts due to the increased development intensity.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.9.1	Exceed noise standards or result in a permanent or temporary increase in ambient noise levels	Less than significant	Less than significant
3.9.2	Excessive groundborne vibration	Less than significant	Less than significant
3.9.3	Excessive noise exposure (within 2 miles of public use airport or private airstrip)	Less than significant	Less than significant
3.9.4	Cumulative noise impacts	Less than cumulatively considerable	Less than cumulatively considerable

Transportation and Circulation

Western Project Site

Under Alternative 1, there would be no change to the western project site. All traffic generated would remain similar to the current baseline. As such, there would be no impacts as they relate to transportation and circulation on the western project site.

Eastern Project Site

The eastern project site would be developed as described above. This development would include a higher density of development than the project, with a greater amount of square footage developed, more parking spaces, and residential uses. All development under Alternative 1 would be concentrated on the eastern project site.

Traffic Generation and Congestion

Because Alternative 1 would include a higher development envelope, it would potentially generate a higher number of vehicle trips than the project. As such, Alternative 1 would have potentially greater impacts on traffic and congestion in the project area. All impacts related to Alternative 1 were analyzed in the ECR/C EIR. As discussed in Section 3.10, Transportation and Circulation, the ECR/C Area Plan would result in significant impacts at certain intersections. Alternative 1 would implement all mitigation measures as required in the original EIR and the mitigation measures included in Section 3.10. Nonetheless, due to the higher volume of trips that Alternative 1 would generate compared to the project, the alternative would have a potentially more significant impact on traffic generation and congestion than the project.

Air Traffic Patterns

Similar to the project, building design for Alternative 1 would comply with all City policies regarding building height. Therefore, Alternative 1 would have a less than significant impact on air traffic patterns.

Road Hazards

Similar to the project, Alternative 1 would follow applicable General Plan policies regarding the construction of new roads. As such, any planned roads would be built to City standards and therefore would have a less than significant impact.

Emergency Vehicle Access

Emergency vehicle access routes to and around the project site would not be changed under Alternative 1, similar to the project. Therefore, Alternative 1 would have a less than significant impact.

Bicycles, Pedestrians, and Transit

Similar to the project, Alternative 1 would increase vehicular traffic in the project area, which could increase unsafe conditions for pedestrians and bicycle users. Nonetheless, the improvements described in Section 3.10 would be implemented. Therefore, similar to the project, Alternative 1 would have a less than significant impact as it relates to bicycle and pedestrian systems. Additionally, similar to the project, the alternative would not increase transit ridership in a substantial manner. As such, Alternative 1, similar to the project, would have a less than significant impact on transit systems in the project area.

Under the project, impacts on transportation and circulation would be mitigated to a less than significant level. Due to increased traffic volumes, Alternative 1 would have a potentially significant impact on transportation and circulation, which would be greater than the project.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.10.1	Cause a substantial increase in traffic load, or conflict with an applicable congestion management program	Potentially significant	Less than significant with mitigation
3.10.2	Result in a change in air traffic patterns	Less than significant	Less than significant
3.10.3	Increase hazards due to a design feature	Less than significant	Less than significant
3.10.4	Result in inadequate emergency access	Less than significant	Less than significant
3.10.5	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	Less than significant	Less than significant
3.10.6	Cumulative traffic impacts	Potentially significant	Less than cumulatively considerable with mitigation

Utilities and Service Systems

Western Project Site

Under Alternative 1, there would be no change to the western project site and no change to the site's utilities and service system demands. As such, there would be no impacts as they relate to utilities and service systems.

Eastern Project Site

The eastern project site would be developed as described above. Alternative 1 would include a higher intensity of development than the project, with more square footage of development and the addition of residential units to the eastern project site.

Water Supply

The ECR/C EIR found that development under the Area Plan would not exceed water supply projections for the area and that existing entitlements and resources would be sufficient to cover the project. Impacts on water supply and infrastructure from both Alternative 1 and the project would therefore be less than significant.

Wastewater

The ECR/C EIR concluded that there would be adequate capacity to treat all wastewater generated by development in the planning area. Therefore, similar to the project, Alternative 1 would have a less than significant impact on wastewater conveyance and treatment.

Stormwater

Alternative 1 and the project would contribute flows to storm drains, but not in an amount greater than previously anticipated. Stormwater runoff reduction measures as directed under ECR/C Area Plan Policy DG-40 would be implemented and would ensure a less than significant impact on storm drain system capacity.

Solid Waste

Alternative 1 would not increase solid waste generation over what was projected in the ECR/C EIR, and therefore would have a less than significant impact on solid waste generation. Alternative 1 and the project would have a less than significant impact on solid waste.

Although there would be no significant impacts on utilities and service systems resulting from the project, overall impacts under Alternative 1 would be greater than under the project due to the increased intensity of development. Alternative 1 would require more water and electricity and would generate more wastewater and solid waste than the project. Therefore, Alternative 1 would have a greater impact.

Draft SEIR Impact Number	Impact Topic	Alternative 1 Impact Significance	Project Impact Significance
3.11.1	Water supply and infrastructure	Less than significant	Less than significant
3.11.2	Wastewater conveyance and treatment	Less than significant	Less than significant
3.11.3	Storm drainage systems	Less than significant	Less than significant
3.11.4	Solid waste	Less than significant	Less than significant
3.11.5	Cumulative utilities and service systems impacts	Less than cumulatively considerable	Less than cumulatively considerable

4.4 ALTERNATIVE 2 – SURFACE PARKING ONLY

DESCRIPTION OF ALTERNATIVE

The Surface Parking Only alternative (Alternative 2) would include similar elements to the project. As shown on **Figure 4.0-1 Alternative 2 Site Layout**, the community civic center and the fire station would be built in the same locations, but the project would not include a parking structure. As part of the project, the eastern portion would contain public open space at its northern end. Under Alternative 2, the project site would be served by a surface-level parking lot. Construction activities under Alternative 2 would be similar to those described in Section 2.0, Project Description, including vegetation removal and grading.

T:_CS\Work\South San Francisco, City of\157237 Civic Center Planning + CEQA\Figures

Source: City of South San Francisco

Not To Scale

FIGURE 4.0-1
Alternative 2 Site Layout

Michael Baker
INTERNATIONAL

ENVIRONMENTAL ANALYSIS

The following analysis is based on the environmental impacts identified in Sections 3.1 through 3.11 of this Draft SEIR. Each subsection below presents Alternative 2's potential impacts on the respective resource area and compares it with the project. The analysis is based on a qualitative method; where available, approximate data is presented.

Aesthetics

Under Alternative 2, the project site would be developed in a similar manner to the project. However, instead of a parking structure, the alternative would expand surface-level parking on the project site.

Scenic Vistas

Similar to the project, Alternative 2 would comply with height limits and City design guidelines, thus reducing potential impacts on a scenic vista to a less than significant level. However, this alternative would reduce the impact on scenic vistas when compared to the project, as the removal of the parking structure would allow for more visibility of Sign Hill.

State Scenic Highway

Alternative 2, similar to the project, is not located near a state scenic highway. Therefore, neither the alternative nor the project would have impacts on visual resources in a state scenic highway.

Visual Character

The visual character of the site would be altered from the vacant lot to a public campus with a mix of library and office uses. The area's visual character would be improved, as the development standards established in the ECR/C Area Plan would be implemented. Similar to the project, Alternative 2 would have a less than significant impact on the visual character of the area.

Nighttime Lighting and Glare

Similar to the project, Alternative 2 construction would comply with the City's Zoning Ordinance, which sets standards controlling outdoor artificial lighting and minimizing impact from nighttime lighting. Usage of building materials as outlined in the design guidelines would minimize the glare impacts of Alternative 2. Therefore, Alternative 2 would have similar impacts to the project.

There would be no significant impacts on aesthetics resulting from the project or Alternative 2. Therefore, Alternative 2 and the project would have a similar impact on aesthetic resources.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.1.1	Have a substantial adverse effect on a scenic vista	Less than significant	Less than significant
3.1.2	Substantially damage scenic resources within a state scenic highway	No impact	No impact
3.1.3	Have a substantial adverse effect on the existing visual character site and its surroundings	Less than significant	Less than significant
3.1.4	Create a substantial new source of light or glare	Less than significant	Less than significant
3.1.5	Cumulative impacts to visual resources and aesthetics	Less than cumulatively considerable	Less than cumulatively considerable

Air Quality

Under Alternative 2, the project site would be developed in a similar manner to the project. However, instead of a parking structure, the project would expand surface-level parking on the project site. As such, Alternative 2's construction and operational air emissions would be similar because similar structures would be built and construction would take place over a similar time frame.

2017 Clean Air Plan

Because Alternative 2's emissions would be similar to the project's, its emissions would not exceed operational standards and therefore would not violate air quality standards. Alternative 2 would be consistent with the land use designations and development density presented in the General Plan. Therefore, it would not exceed the population or job growth projections used to inform the air quality forecasts of the 2017 Clean Air Plan. Therefore, similar to the project, Alternative 2 would have a less than significant impact on implementation of the 2017 Clean Air Plan.

Violation of Air Quality Standards

Alternative 2 would emit similar amounts of construction and operational air pollutants as the project. As discussed in Section 3.2, Air Quality, construction-related emissions would surpass BAAQMD thresholds and therefore mitigation measure **MM 3.2.2** would be required. With implementation of mitigation measure **MM 3.2.2**, Alternative 2 would have a less than significant impact on the violation of air quality standards. Additionally, similar to the project, Alternative 2 operational emissions would be less than significant.

Sensitive Receptors

As discussed above, construction-related emissions would surpass BAAQMD thresholds, which would be a potentially significant impact on sensitive receptors. With implementation of mitigation measure **MM 3.2.2**, Alternative 2 impacts would be reduced to a less than significant level. Additionally, similar to the project, the alternative's operational emissions would be less than significant. Therefore, similar to the project, Alternative 2 would have a less than significant impact on sensitive receptors.

Generation of Odors

Similar to the project, Alternative 2 would not construct a long-term source of odorous emissions. Therefore, Alternative 2 would have a less than significant impact.

Under both Alternative 2 and the project, potentially significant impacts would be mitigated to a less than significant level. As such, Alternative 2 and the project would have a similar impact on air quality.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.2.1	Conflict with or obstruct implementation of the 2017 Clean Air Plan	Less than significant	Less than significant
3.2.2	Violate an air quality standard or contribute substantially to an air quality violation during short- or long-term operations	Less than significant with mitigation	Less than significant with mitigation
3.2.3	Expose sensitive receptors to substantial pollutant concentrations	Less than significant with mitigation	Less than significant with mitigation
3.2.4	Expose sensitive receptors to odorous emissions	Less than significant	Less than significant
3.2.5	Cumulative air quality impacts	Less than cumulatively considerable	Less than cumulatively considerable

Biological Resources

Alternative 2 is located in the same area as the project. As such, all of the biological resources discussed in Section 3.3, Biological Resources, would occur in the Alternative 2 project area.

Special-Status Species and Migratory Birds

Alternative 2 would require the removal of large eucalyptus trees, thus potentially impacting nesting raptors, migrating birds, and special-status bats. Therefore, this alternative would require the same mitigation measures as the project. With the implementation of mitigation measures **MM 3.3.1a** through **MM 3.3.1f,** Alternative 2 would have a less than significant impact on migratory birds and special-status species**.**

Riparian Habitat and Wetlands

The eastern and western project sites have no riparian areas or federally protected wetlands. Therefore, Alternative 2, similar to the project, would have no impact on these resources.

Impacts on biological resources under the project and Alternative 2 would be mitigated to a less than significant level. Because the project and Alternative 2 would be located in the same area and would include similar construction and operational activities, they would have similar impacts on biological resources.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.3.1	Candidate, sensitive, or special-status plant or animal species	Less than significant with mitigation	Less than significant with mitigation
3.3.2	Riparian habitat or sensitive natural communities	No impact	No impact
3.3.3	Wetlands or waters of the United States	No impact	No impact
3.3.4	Wildlife movement	No impact	No impact
3.3.5	Conflict with local policies	Less than significant	Less than significant
3.3.6	Conservation plans	No impact	No impact
3.3.7	Special-status species populations	Less than significant with mitigation	Less than significant with mitigation
3.3.8	Cumulative biological resources impacts	Less than cumulatively considerable with mitigation	Less than cumulatively considerable with mitigation

Cultural Resources

Under Alternative 2, the project footprint and site development area would remain the same as the project. Because Alternative 2 would not require the construction of a parking structure, the depth of disturbance at the parking structure site would be lower, thereby potentially minimizing impacts on unknown cultural resources.

Unknown Cultural Resources

Alternative 2 would require a smaller amount of ground-disturbing activities on the eastern project site due to the removal of the parking structure. Nonetheless, the alternative would have the potential to disturb unknown cultural, archaeological, and paleontological resources, similar to the project. As such, mitigation measures **MM 3.4.2a** through **MM 3.4.2c** and **MM 3.4.3** would be required. With the implementation of these mitigation measures, Alternative 2 would have a less than significant impact on cultural resources, similar to the project.

Under both the project and Alternative 2, impacts to unknown cultural resources would be reduced to a less than significant level with mitigation. However, due to the decreased depth of ground disturbance, Alternative 2 would have fewer impacts on cultural resources as compared to the project.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.4.1	Adverse effect on historic resources	Less than significant	Less than significant
3.4.2	Adverse effect on archaeological resources	Less than significant with mitigation	Less than significant with mitigation
3.4.3	Adverse effect on paleontological resources	Less than significant with mitigation	Less than significant with mitigation
3.4.4	Adverse effect on human remains	Less than significant	Less than significant
3.4.5	Cumulative impacts on cultural resources	Less than cumulatively considerable with mitigation	Less than cumulatively considerable with mitigation

Geology and Soils

Alternative 2 would be located on the same site as the project. Alternative 2 would not require the construction of a parking structure.

Seismic Risk

As described in Section 3.5, the project site is in a region known for its seismic activity and would experience strong ground shaking from earthquakes on regional or local faults. However, Alternative 2, similar to the project, would be required to comply with the California Building Code. Compliance with the building standards in the California Building Code and contained in Title 24 of the California Code of Regulations would protect against building collapse and major injury. Therefore, Alternative 2, similar to the project, would have a less than significant impact.

Expansive Soils

The project site is located in the city's lowland zone as designated in the General Plan Health and Safety Element. This area is known to have a high shrink-swell potential and soil settlement. As such, similar to the project, Alternative 2 would be developed in an area with highly expansive soils. Alternative 2 would require the implementation of mitigation measure **MM 3.5.2,** which would reduce the alternative's impact to less than significant, similar to the project.

Soil Erosion

Alternative 2 would disturb less soils than the project because it would not include a new parking structure. As such, this alternative would have a lower impact on site soils and soil erosion than the project. Alternative 2, similar to the project, would include the development and implementation of a SWPPP. With the best management practices associated with the SWPPP, impacts associated with soil disturbance would be less than significant, similar to the project.

Project impacts under both the project and Alternative 2 would be mitigated to a less than significant level with implementation of mitigation measures outlined in Section 3.5. However, due to the decreased depth of ground disturbance, Alternative 2 would have lesser impacts on geology and soils than the project.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.5.1	Fault rupture	Less than significant	Less than significant
3.5.2	Ground shaking and liquefaction	Less than significant with mitigation	Less than significant with mitigation
3.5.3	Soil erosion	Less than significant	Less than significant
3.5.4	Located on expansive soil, or unstable soil that could result in landslide, lateral spreading, subsidence, liquefaction, or collapse	Less than significant with mitigation	Less than significant with mitigation
3.5.5	Cumulative geologic and soil hazards	Less than cumulatively considerable	Less than cumulatively considerable

Greenhouse Gases and Climate Change

Under Alternative 2, the eastern and western project sites would be developed similarly to the project and the eastern project site would be developed with the same uses.

Generation of GHG Emissions

Due to the similar intensity of development, Alternative 2's construction-related generation of GHG emissions would be similar to the project. A similar amount of energy would be required to heat and cool the new buildings. Alternative 2 would generate a similar number of vehicle trips to the project; thus, GHG emissions from mobile sources would be similar to the proposed project. As such, Alternative 2 would have a similar impact related to GHGs as the project. Alternative 2's impact would be less than significant, similar to the project.

Compliance with Applicable GHG Plans

As described above, Alternative 2 would generate similar GHG emissions during construction and operations. Nonetheless, similar to the project, Alternative 2 would encourage alternative transportation options and concentrate development in areas designated for future growth by Plan Bay Area. Therefore, Alternative 2, similar to the project, would have a less than cumulatively considerable impact relative to applicable GHG reduction plans.

There would be no significant impacts on GHG emissions under the project or Alternative 2. Alternative 2 would have the same impacts on GHG emissions as the project.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.6.1	Generation of greenhouse gas emissions	Less than significant	Less than significant
3.6.2	Compliance with the applicable GHG reduction plan	Less than cumulatively considerable	Less than cumulatively considerable

Hazards and Hazardous Materials

Under Alternative 2, the project footprint and site development area would remain the same as the project. However, Alternative 2 would not include a new parking structure; therefore, the alternative's depth of soil disturbance would be less than the project's.

Hazardous Materials Use

Alternative 2 would abide by the laws governing the handling of hazardous materials, as described in Section 3.7 and similar to the project. As such, any impacts relating to the usage and transport of hazardous materials would be reduced to a less than significant level.

Unknown Contamination

As described in Section 3.7, the project, and thus Alternative 2, are located in an area with potential for contamination from historic uses. Thus, Alternative 2 would have a potentially significant impact due to unknown contamination. As such, similar to the project, Alternative 2 would implement mitigation measures **MM 3.7.2a** and **MM 3.7.2b.** Therefore, similar to the project, Alternative 2 impacts would be reduced to a less than significant level.

Similar to the project, Alternative 2 would include the demolition of existing buildings. Building materials sometimes contain hazardous materials that may be accidentally released. If these materials are present in amounts that are subject to regulation, demolition would not proceed until hazards have been abated. The City would be responsible for ensuring proper testing and removal of these materials, which would reduce the potential for accidental release or improper disposal that could pose an adverse human health or environmental risk. Therefore, Alternative 2 impacts, similar to the proposed project, would be less than significant.

Project impacts under both the project and Alternative 2 would be mitigated to a less than significant level. However, due to the decreased depth of ground disturbance, Alternative 2 would have lesser impacts on hazards and hazardous materials than the project.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.7.1	Hazardous materials use	Less than significant	Less than significant
3.7.2	Cortese List sites and potential for environmental contamination	Less than significant with mitigation	Less than significant with mitigation
3.7.3	Hazardous materials in building materials	Less than significant	Less than significant
3.7.5	Cumulative hazardous materials impacts	Less than cumulatively considerable	Less than cumulatively considerable

Hydrology and Water Quality

Under Alternative 2, the project footprint and site development area would remain the same as the project. However, the alternative would not include a parking structure or open space on the eastern project site. Similar to the project, Alternative 2 would require a SWPPP. With best management practices associated with the SWPPP, Alternative 2's impacts associated with construction period runoff would be less than significant, similar to the project.

Alternative 2 would also implement stormwater runoff reduction measures as required by the San Mateo Countywide Water Pollution Prevention Program and would implement stormwater control measures per the C.3 provision of the Municipal Regional Stormwater permit. However, Alternative 2 would include a larger surface-level parking lot, expanding the impervious surface on the site compared to the project. This increase of impervious surface would increase operational stormwater flows over the project. However with implementation of the C.3 provisions, Alternative 2's impacts associated with operational stormwater runoff would be less than significant, similar to the project.

Under the project and Alternative 2, impacts would be mitigated to a less than significant level. Alternative 2 and the project would have a similar impact on hydrology and water quality.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.8.1	Water quality standards	Less than significant	Less than significant
3.8.2	Cumulative stormwater runoff and water quality	Less than cumulatively considerable	Less than cumulatively considerable

Noise

Under Alternative 2, the project footprint and site development area would remain the same as the project.

Noise Standards

Construction under the project would be similar to Alternative 2 and would not exceed noise standards as established by the South San Francisco Municipal Code and as discussed in Section 3.9, Noise. Ambient noise levels under Alternative 2 would not increase over levels analyzed in the ECR/C EIR, which found impacts from ambient noise levels to be less than significant. Alternative 2, like the proposed project, would have a less than significant impact on noise standards.

Groundborne Vibration

Construction of Alternative 2 would expose neighboring structures to vibration, but similar to the project, exposure of people and structures would be temporary and less than significant.

There would be no significant impacts on noise under the project or Alternative 2. Alternative 2 would have similar impacts pertaining to noise as the project.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.9.1	Exceed noise standards or result in a permanent or temporary increase in ambient noise levels	Less than significant	Less than significant
3.9.2	Excessive groundborne vibration	Less than significant	Less than significant
3.9.3	Excessive noise exposure (within 2 miles of public use airport or private airstrip)	Less than significant	Less than significant
3.9.4	Cumulative noise impacts	Less than cumulatively considerable	Less than cumulatively considerable

Transportation and Circulation

Alternative 2 is located on the same project site as the project and would include the same development envelope. However, the parking structure would be replaced with expanded surface-level parking.

Traffic Generation and Congestion

Alternative 2 would construct similar uses and would employ the same number of people as the project, and therefore would generate a similar number of vehicle trips. While Alternative 2's parking layout would change, access to the site from Chestnut Avenue would remain in the same place. As such, Alternative 2 would have potentially significant impacts on transportation and circulation, as with the project, and would require the same mitigation measures. With the implementation of mitigation measures **MM 3.10.1a, MM 3.10.1b, MM 3.10.1d, MM 3.10.6b, MM 3.10.6c, MM 3.10.6d,** and **MM 3.10.6e,** Alternative 2 would have a less than significant impact on traffic and congestion, similar to the project.

Air Traffic Patterns

Similar to the project, building design for Alternative 2 would comply with all City policies regarding building height. Therefore, Alternative 2 would have a less than significant impact on air traffic patterns.

Road Hazards

Similar to the project, Alternative 2 would follow applicable General Plan policies regarding the construction of new roads. As such, any planned roads would be built to City standards and therefore would have a less than significant impact.

Emergency Vehicle Access

Emergency vehicle access routes to and around the project site would not be changed under Alternative 2, similar to the project. Therefore, Alternative 2 would have a less than significant impact on emergency access.

Bicycles, Pedestrians, and Transit

Similar to the project, Alternative 2 would increase vehicular traffic in the project area, which could increase unsafe conditions for pedestrians and bicycle users. Nonetheless, the improvements described in Section 3.10 would be implemented. Therefore, similar to the project, Alternative 2 would have a less than significant impact as it relates to bicycle and pedestrian systems. Additionally, similar to the project, the alternative would not increase transit ridership in a substantial manner. As such, Alternative 2, similar to the project, would have a less than significant impact on transit systems in the project area.

Project impacts under both the project and Alternative 2 would be mitigated to a less than significant level with implementation of the mitigation measures included in Section 3.10. Alternative 2 and the project would have a similar impact on transportation and circulation.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.10.1	Cause a substantial increase in traffic load, or conflict with an applicable congestion management program	Less than significant with mitigation	Less than significant with mitigation
3.10.2	Result in a change in air traffic patterns	Less than significant	Less than significant
3.10.3	Increase hazards due to a design feature	Less than significant	Less than significant
3.10.4	Result in inadequate emergency access	Less than significant	Less than significant
3.10.5	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	Less than significant	Less than significant
3.10.6	Cumulative traffic impacts	Less than cumulatively considerable with mitigation	Less than cumulatively considerable with mitigation

Utilities and Service Systems

Alternative 2 would develop the same buildings and uses as the project. Alternative 2 would not include a parking structure, and parking would be expanded into the open space area included in the project. Because, Alternative 2 would include the same buildings as the project, it would generate similar demands on water supply, wastewater conveyance, solid waste generation, and electricity and energy infrastructure.

Water Supply

The ECR/C EIR found that development under the Area Plan would not exceed water supply projections for the area and that existing entitlements and resources would be sufficient to cover the project. As such, Alternative 2 impacts on water supply and infrastructure would be less than significant, similar to the project.

Wastewater

The ECR/C EIR concluded that there would be adequate capacity to treat all wastewater generated by development in the planning area. Therefore, similar to the project, Alternative 2 would have a less than significant impact on wastewater conveyance and treatment.

Stormwater

Alternative 2 and the project would contribute flows to storm drains, but not in an amount greater than previously anticipated. Stormwater runoff reduction measures as directed under ECR/C Area Plan Policy DG-40 would be implemented and would reduce impact on storm drain system capacity. However, the expansion of the surface parking lot would increase the amount of impermeable surface on the project site. This increase of impervious surface would increase stormwater flows to city storm drains. However Alternative 2 would be required to implement stormwater reduction measures outlined in the C.3 provision of the City's Regional Stormwater Permit. With implementation, impacts due to stormwater would be reduced to less than significant, similar to the project.

Solid Waste

Alternative 2 would not increase solid waste generation over what was projected in the ECR/C EIR, and therefore would have a less than significant impact on solid waste generation. Alternative 2, similar to the project, would have a less than significant impact on solid waste.

Under the project and Alternative 2, impacts would be mitigated to a less than significant level. Overall, Alternative 2 and the proposed project would have a similar impact on utilities and service systems.

Draft SEIR Impact Number	Impact Topic	Alternative 2 Impact Significance	Project Impact Significance
3.11.1	Water supply and infrastructure	Less than significant	Less than significant
3.11.2	Wastewater conveyance and treatment	Less than significant	Less than significant
3.11.3	Storm drainage system capacity	Potentially significant	Less than significant
3.11.4	Solid waste	Less than significant	Less than significant
3.11.5	Cumulative utilities and service systems impacts	Potentially significant	Less than cumulatively considerable

4.5 ALTERNATIVE 3 – UNDERGROUND PARKING ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

In the Underground Parking Alternative, the community civic center and fire station would be built on the same site as the project. However, the project's parking structure would be replaced with underground parking below the joint Library and Recreation Center building on the eastern project site. The Police Station with office space for the City's Information Technology (IT) and Human Resources (HR) staff shifts to the location of the proposed project's parking garage, and the projects overall footprint would shrink.

As shown on **Figure 4.0-2 Alternative 3 Site Plan,** the location of the Police Station with office space for the City's IT and HR staff would be slightly changed. Surface parking spaces would be reduced in this area and the building would have a north–south alignment instead of an east–west alignment. The building would be the same size and would employ the same number of people. Project construction elements would be similar to those outlined in Section 2.0 for the project.

ENVIRONMENTAL ANALYSIS

The following analysis is based on the environmental impacts identified in Sections 3.0 through 3.11 of this Draft SEIR. Each subsection below presents Alternative 3's potential impacts on the respective resource area and compares it with the project. The analysis is based on a qualitative method; where available, approximate data is presented.

Aesthetics

Under Alternative 3, the project site would be developed in a similar manner to the project. However, instead of a parking structure, parking would be developed underground.

Scenic Vistas

Similar to the project, Alternative 3 would comply with height limits and the design guidelines in the ECR/C Area Plan, lowering potential impacts to a scenic vista to a less than significant level. However, this alternative would reduce the impact on scenic vistas when compared to the project, as the removal of the parking structure would allow higher visibility of Sign Hill. Therefore, Alternative 3 would have lower impacts on scenic vistas compared with the project, even though they would be less than significant.

State Scenic Highway

Similar to the project, Alternative 3 is not located near a state scenic highway. Therefore, neither the alternative nor the project would have impacts on visual resources in a state scenic highway.

Visual Character

The visual character of the site would be altered from the vacant lot to a public campus with a mix of library and office uses. The area's visual character would be improved, as the development standards established in the ECR/C Area Plan would be implemented. Similar to the project, Alternative 3 would have a less than significant impact on the visual character of the area.

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Source: City of South San Francisco

Not To Scale

FIGURE 4.0-2
Alternative 3 Site Plan

Michael Baker
INTERNATIONAL

Nighttime Lighting and Glare

Similar to the project, Alternative 3's construction would comply with the City's Zoning Ordinance, which sets standards controlling outdoor artificial lighting and minimizing impacts from nighttime lighting. Usage of building materials as outlined in the design guidelines would minimize the glare impacts of Alternative 3. Therefore, Alternative 3 would have similar impacts to the project, which would be less than significant.

There would be no significant impacts on aesthetics resulting from the project or Alternative 3. However, Alternative 3 would have fewer impacts on aesthetic resources due to the elimination of the aboveground parking structure when compared to the project.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.1.1	Have a substantial adverse effect on a scenic vista	Less than significant	Less than significant
3.1.2	Substantially damage scenic resources within a state scenic highway	No impact	No impact
3.1.3	Have a substantial adverse effect on the existing visual character site and its surroundings	Less than significant	Less than significant
3.1.4	Create a substantial new source of light or glare	Less than significant	Less than significant
3.1.5	Cumulative impacts to visual resources and aesthetics	Less than cumulatively considerable	Less than cumulatively considerable

Air Quality

Under Alternative 3, the project site would be developed in a similar manner to the project. However, instead of a parking structure, the project would construct an underground parking garage. Alternative 3's construction-related air emissions could be potentially higher than the project, as it would include the construction of an underground parking garage. Such construction would be more intensive and would require additional construction equipment. Operational emissions would be similar to the project, as Alternative 3 would include similar uses, which would generate a similar number of trips as the project.

2017 Clean Air Plan

As discussed in Section 3.2, project emissions would be not conflict or obstruct implementation of the 2017 Clean Air Plan. Because Alternative 3's emissions would be similar to the project, its emissions would not exceed operational standards and therefore would not violate air quality standards. Alternative 3 is consistent with the land use designations and development density presented in the General Plan and therefore would not exceed the population or job growth projections used to inform the air quality forecasts of the 2017 Clean Air Plan. Therefore Alternative 3 would have a less than significant impact on the Clean Air Plan.

Violation of Air Quality Standards

As described above, Alternative 3 would potentially have higher emissions than the project, due to the construction of an underground garage. Alternative 3 would emit similar amounts of operational air pollutants as the project. As discussed in Section 3.2, construction-related emissions for the project would surpass BAAQMD thresholds and therefore mitigation measure **MM 3.2.2** would be required. As such, this alternative would also implement mitigation measure **MM 3.2.2**. With implementation, Alternative 3 would have a less than significant impact on the violation of air quality standards from both construction and operation, similar to the project.

Sensitive Receptors

As discussed above, construction-related emissions would surpass BAAQMD thresholds, which would be a potentially significant impact on sensitive receptors. With implementation of mitigation measure **MM 3.2.2**, Alternative 3's impacts would be reduced to a less than significant level, similar to the project. Operational emissions would be less than significant, similar to the project.

Generation of Odors

Similar to the project, Alternative 3 would not construct a long-term source of odorous emissions. Therefore, Alternative 3 would have a less than significant impact.

Under both the project and Alternative 3, impacts would be reduced to less than significant with mitigation. Alternative 3 would have similar impacts on emissions due to potential construction impacts, as compared to the project.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.2.1	Conflict with or obstruct implementation of the 2017 Clean Air Plan	Less than significant	Less than significant
3.2.2	Violate an air quality standard or contribute substantially to an air quality violation during short- or long-term operations	Less than significant with mitigation	Less than significant with mitigation
3.2.3	Expose sensitive receptors to substantial pollutant concentrations	Less than significant	Less than significant with mitigation
3.2.4	Expose sensitive receptors to odorous emissions	Less than significant	Less than significant
3.2.5	Cumulative air quality impacts	Less than cumulatively considerable	Less than cumulatively considerable

Biological Resources

Alternative 3 is located in the same area as the project. As such, all of the biological resources discussed in Section 3.3 would occur in the Alternative 3 project area.

Special-Status Species and Migratory Birds

Alternative 3 would require the removal of large eucalyptus trees, thus potentially impacting nesting raptors, migrating birds, and special-status bats. Therefore, Alternative 3 would require the same mitigation measures as the project. With the implementation of mitigation measures **MM 3.3.1a** through **MM 3.3.1f,** Alternative 3 would have a less than significant impact on migratory birds and special-status species, similar to the project**.**

Riparian Habitat and Wetlands

The eastern project site has no riparian areas or federally protected wetlands. Therefore, Alternative 3, similar to the project, would have no impact on these resources.

Impacts on biological resources under the project and Alternative 3 would be mitigated to a less than significant level. Because the project and Alternative 3 would be located in the same area, they would have similar impacts on biological resources.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.3.1	Candidate, sensitive, or special-status plant or animal species	Less than significant with mitigation	Less than significant with mitigation
3.3.2	Riparian habitat or sensitive natural communities	No impact	No impact
3.3.3	Wetlands or waters of the United States	No impact	No impact
3.3.4	Wildlife movement	No impact	No impact
3.3.5	Local policies	Less than significant	Less than significant
3.3.6	Conservation plans	No impact	No impact
3.3.7	Special-status species populations	Less than significant with mitigation	Less than significant with mitigation
3.3.8	Cumulative biological resources impacts	Less than cumulatively considerable with mitigation	Less than cumulatively considerable with mitigation

Cultural Resources

Under Alternative 3, the project footprint and site development area would be similar to the project. However, Alternative 3's ground disturbance area would be slightly reduced due to the change in the location of the police station, but the depth of disturbance would greatly increase because of the underground parking.

Unknown Cultural Resources

Alternative 3 would require a greater amount of ground-disturbing activities on the eastern project site due to the construction of the underground parking structure. Therefore, similar to the project, Alternative 3 would have the potential to disturb unknown cultural, archaeological, and paleontological resources. As such, mitigation measures **MM 3.4.2a** through **MM 3.4.2c** and **MM 3.4.3** would be required. With the implementation of these mitigation measures, Alternative 3 would have a less than significant impact on unknown cultural resources, similar to the project.

Under both the project and Alternative 3, project impacts would be reduced to a less than significant level with mitigation. Therefore, the project and Alternative 3 would have similar impacts on cultural resources.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.4.1	Adverse effect on historic resources	Less Than significant	Less Than significant
3.4.2	Adverse effect on archaeological resources	Less than significant with mitigation	Less than significant with mitigation
3.4.3	Adverse effect on paleontological resources	Less than significant with mitigation	Less than significant with mitigation
3.4.4	Adverse effect on human remains	Less than significant with mitigation	Less than significant with mitigation
3.4.5	Cumulative impacts on cultural resources	Less than cumulatively considerable	Less than cumulatively considerable

Geology and Soils

Alternative 3 would be located on the same site as the project. The alternative ground disturbance area would be slightly reduced due to the change in the location of the police station, but the depth of disturbance would greatly increase because of the underground parking lot.

Seismic Risk

As described in Section 3.5, the project site is in a region known for its seismic activity and would experience strong ground shaking from earthquakes on regional or local faults. However, Alternative 3, similar to the project, would be required to comply with the California Building Code. Compliance with the building standards in the California Building Code and contained in Title 24 of the California Code of Regulations would protect against building collapse and major injury. Therefore, Alternative 3, similar to the project, would have a less than significant impact.

Expansive Soils

The project site is located in the city's lowland zone as designated in the General Plan Health and Safety Element. This area is known to have a high shrink-swell potential and soil settlement. As such, similar to the project, Alternative 3 would be developed in an area with highly expansive soils. The alternative would require the implementation of mitigation measure **MM 3.5.2,** which would reduce Alternative 3's impacts to less than significant, similar to the project.

Soil Erosion

Alternative 3 would disturb more soil than the project due to the construction of the underground parking structure Therefore, similar to the project, Alternative 3 would include the development and implementation of a SWPPP. With the best management practices associated with the SWPPP, impacts associated with soil disturbance would be less than significant..

Under the project and Alternative 3, impacts would be mitigated to a less than significant level. Alternative 3 and the proposed project would therefore have similar impacts on geology and soils.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.5.1	Fault rupture	Less than significant	Less than significant
3.5.2	Ground shaking and liquefaction	Less than significant with mitigation	Less than significant with mitigation
3.5.3	Soil erosion	Less than significant	Less than significant
3.5.4	Located on expansive soil, or unstable soil that could result in landslide, lateral spreading, subsidence, liquefaction or collapse,	Less than significant with mitigation	Less than significant with mitigation
3.5.5	Cumulative geologic and soil hazards	Less than cumulatively considerable	Less than cumulatively considerable

Greenhouse Gases and Climate Change

Under Alternative 3, the western project site would be developed identically to the project and the eastern project site would be developed with the same uses.

Generation of GHG Emissions

As described above, Alternative 3 would include the construction of an underground parking garage. As such, project construction would require the use of intensive construction equipment and GHG emissions associated with Alternative 3 would be potentially higher than the project. Nonetheless, the ECR/C EIR found that Area Plan implementation would have a less than significant impact as it relates to GHG emissions. Therefore, Alternative 3, similar to the project, would have a less than significant impact due to GHG construction emissions.

A similar amount of energy would be required to heat and cool the new buildings for Alternative 3 as the project. Additionally, this alternative would generate a similar number of vehicle trips as the proposed project, meaning GHG emissions from mobile sources would be similar to the proposed project. As such, Alternative 3 would have a similar impact due to GHG operational emissions as the project. Alternative 3 impacts would be less than significant, similar to the project.

Compliance with Applicable GHG Plans

As described above, Alternative 3 would generate similar GHG emissions during construction and operations. Nonetheless, similar to the project, the alternative would encourage alternative transportation options and concentrate development in areas designated for future growth by Plan Bay Area. Therefore, Alternative 3, similar to the project, would have a less than cumulatively considerable impact relative to applicable GHG reduction plans.

There would be no significant impacts on GHG emissions under the project or Alternative 3. Alternative 3 would have similar impacts on GHG emissions as the project.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.6.1	Generation of greenhouse gas emissions	Less than significant	Less than significant
3.6.2	Compliance with the applicable GHG reduction plan	Less than cumulatively considerable	Less than cumulatively considerable

Hazards and Hazardous Materials

Under Alternative 3, the project footprint and site development area would be similar to the project. However, Alternative 3's ground disturbance area would be slightly reduced due to the change in the location of the police station, but the depth of disturbance would greatly increase because of the underground parking lot..

Hazardous Materials Use

Alternative 3 would abide by the laws governing the handling of hazardous materials, as described in Section 3.7 and similar to the project. As such, any impacts relating to the usage and transport of hazardous materials would be reduced to a less than significant level.

Unknown Contamination

As described in Section 3.7, the project, and thus Alternative 3, are located in an area with potential for contamination from historic uses. Alternative 3 would include ground disturbing activities and therefore could encounter unknown contaminated soil. As such, this alternative would implement similar mitigation measures as the project. With the implementation of mitigation measures **MM 3.7.2a** and **MM 3.7.2b**, impacts due to unknown contamination would be reduced to a less than significant level.

Similar to the project, Alternative 3 would include the demolition of existing buildings. Building materials sometimes contain hazardous materials that may be accidentally released. If these materials are present in amounts that are subject to regulation, demolition would not proceed until hazards have been abated. The City would be responsible for ensuring proper testing and removal of these materials, which would reduce the potential for accidental release or improper disposal that could pose an adverse human health or environmental risk. Therefore, Alternative 2 impacts, similar to the proposed project, would be less than significant.

Under the project and Alternative 3, impacts would be mitigated to a less than significant level. Alternative 3 and the project would therefore have similar levels of impact.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.7.1	Hazardous materials use	Less than significant	Less than significant
3.7.2	Cortese List sites and potential for environmental contamination	Less than significant with mitigation	Less than significant with mitigation
3.7.3	Hazardous materials in building materials	Less than significant	Less than significant
3.7.4	Cumulative hazardous materials impacts	Less than cumulatively considerable	Less than cumulatively considerable

Hydrology and Water Quality

Under Alternative 3, the project footprint would be similar to, but slightly smaller than the project. Nonetheless, like the project, the project site would remain large enough to require the development and implementation of a SWPPP. With best management practices associated with the SWPPP, Alternative 3's impacts associated with construction period runoff would be less than significant, similar to the project.

Alternative 3 would also implement the same stormwater runoff reduction measures as required by the San Mateo Countywide Water Pollution Prevention Program, similar to the project. Due to the slight decrease in project area, the amount of impervious surface added by Alternative 3 would be reduced. Nonetheless, as outlined in the ECR/C EIR, impacts associated with plan implementation related to stormwater runoff and quality would be less than significant. As such and with implementation of existing regulations, Alternative 3 would have an impact on stormwater runoff similar to the project.

Under the project and Alternative 3, impacts related to stormwater would be less than significant. Therefore, Alternative 3 would have a similar overall impact on hydrology and water quality as the project.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.8.1	Water quality standards	Less than significant	Less than significant
3.8.2	Cumulative stormwater runoff and water quality	Less than cumulatively considerable	Less than cumulatively considerable

Noise

Under Alternative 3, the project footprint and site development area would be slightly smaller, but the same uses would be developed.

Noise Standards

Project construction under the project would be similar to Alternative 3 and would not exceed noise standards as established by the South San Francisco Municipal Code. Ambient noise levels under Alternative 3 would not increase over levels analyzed in the ECR/C EIR, which found impacts from ambient noise levels to be less than significant. Alternative 3, like the proposed project, would have a less than significant impact on noise standards.

Groundborne Vibration

Construction of Alternative 3 would expose neighboring structures to vibration, but exposure would be temporary and less than significant, similar to the project.

There would be no significant impacts on noise from the project or Alternative 3. Alternative 3 would have the same impacts on noise as the project.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.9.1	Exceed noise standards or result in a permanent or temporary increase in ambient noise levels	Less than significant	Less than significant
3.9.2	Excessive groundborne vibration	Less than significant	Less than significant
3.9.3	Excessive noise exposure (within 2 miles of public use airport or private airstrip)	Less than significant	Less than significant
3.9.4	Cumulative noise impacts	Less than cumulatively considerable	Less than cumulatively considerable

Transportation and Circulation

Under Alternative 3, the project footprint and site development area would remain the same as the project. However, Alternative 3 would replace the project's parking structure with an underground parking lot.

Traffic Generation and Congestion

Alternative 3 would construct similar uses and would employ the same number of people as the project, and therefore would generate a similar number of vehicle trips. While Alternative 3's parking layout would change, access to the site from Chestnut Avenue would remain in the same place. As such, Alternative 3 would have potentially significant impacts on transportation and circulation, as with the project, and would require the same mitigation measures. With the implementation of mitigation measures **MM 3.10.1a, MM 3.10.1b, MM 3.10.1d, MM 3.10.6b, MM 3.10.6c, MM 3.10.6d,** and **MM 3.10.6e,** Alternative 3 would have a less than significant impact on traffic and congestion, similar to the project.

Air Traffic Patterns

Similar to the project, building design for Alternative 3 would comply with all City policies regarding building height. Therefore, Alternative 3 would have a less than significant impact on air traffic patterns.

Road Hazards

Similar to the project, Alternative 3 would follow applicable General Plan policies regarding the construction of new roads. As such, any planned roads would be built to City standards and therefore would have a less than significant impact.

Emergency Vehicle Access

Emergency vehicle access routes to and around the project site would not be changed under Alternative 3, similar to the project. Therefore, Alternative 3 would have a less than significant impact on emergency access.

Bicycles, Pedestrians, and Transit

Similar to the project, Alternative 3 would increase vehicular traffic in the project area, which could increase unsafe conditions for pedestrians and bicycle users. Nonetheless, the improvements described in Section 3.10 would be implemented. Therefore, similar to the project, Alternative 3 would have a less than significant impact as it relates to bicycle and pedestrian systems. Additionally, similar to the project, this alternative would not increase transit ridership in a substantial manner. As such, Alternative 3, similar to the project, would have a less than significant impact on transit systems in the project area.

Project impacts under both the project and Alternative 3 would be mitigated to a less than significant level. Alternative 3 and the project would have a similar impact on transportation and circulation.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.10.1	Cause a substantial increase in traffic load, or conflict with an applicable congestion management program	Less than significant with mitigation	Less than significant with mitigation
3.10.2	Result in a change in air traffic patterns	Less than significant	Less than significant
3.10.3	Increase hazards due to a design feature	Less than significant	Less than significant
3.10.4	Result in inadequate emergency access	Less than significant	Less than significant
3.10.5	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	Less than significant	Less than significant
3.10.6	Cumulative traffic impacts	Less than cumulatively considerable with mitigation	Less than cumulatively considerable with mitigation

Utilities and Service Systems

Alternative 3 would develop the same buildings and uses as the project. Alternative 3 would construct an underground parking structure, as opposed to the project that would include an aboveground parking structure. Because Alternative 3 would include the same buildings and open space as the project, it would generate similar demands on water supply, wastewater conveyance, stormwater runoff, solid waste generation, and electricity and energy infrastructure.

Water Supply

The ECR/C EIR found that development under the Area Plan would not exceed water supply projections for the area and that existing entitlements and resources would be sufficient to cover the project. As such, Alternative 3 impacts on water supply and infrastructure would be less than significant, similar to the project

Wastewater

The ECR/C EIR concluded that there would be adequate capacity to treat all wastewater generated by development in the planning area. Therefore, similar to the project, Alternative 3 would have a less than significant impact on wastewater conveyance and treatment.

Stormwater

Alternative 3 and the project would contribute flows to storm drains, but not in an amount greater than previously anticipated. Stormwater runoff reduction measures as directed under ECR/C Area Plan Policy DG-40 would be implemented and would ensure a less than significant impact on storm drain system capacity. As such, Alternative 3 would have a similar impact on stormwater infrastructure as the project.

Solid Waste

Alternative 3 would not increase solid waste generation over what was projected in the ECR/C EIR, and therefore would have a less than significant impact on solid waste generation. Alternative 3, similar to the project, would have a less than significant impact on solid waste.

There would be no significant impacts on utilities and service systems from the project or Alternative 3. Alternative 3 would have the same impacts on utilities and service systems as the project.

Draft SEIR Impact Number	Impact Topic	Alternative 3 Impact Significance	Project Impact Significance
3.11.1	Water supply and infrastructure	Less than significant	Less than significant
3.11.2	Wastewater conveyance and treatment	Less than significant	Less than significant
3.11.3	Storm drainage system capacity	Less than significant	Less than significant
3.11.4	Solid waste	Less than significant	Less than significant
3.11.5	Cumulative utilities and service systems impacts	Less than cumulatively considerable	Less than cumulatively considerable

4.6 COMPARISON OF ALTERNATIVES

Table 4.0-1, Summary Comparison of Project Objectives, shows whether the selected alternatives meet the City-identified project objectives as outlined in Section 2.0, Project Description. Alternative 1 – No Project Alternative/Continuation of the Existing ECR/C Area Plan would meet only one of the City's three objectives for the project. Alternatives 2 and 3 would meet all three of the objectives.

Table 4.0-2 Summary Comparison of Environmental Impacts of Alternatives, summarizes the potential impacts of the alternatives evaluated in this section as compared with the project's impacts. Pursuant to CEQA Guidelines Section 15126.6(e)(2), an environmentally superior alternative must be identified from among the other alternatives. The environmentally superior alternative is the alternative that would result in the fewest or least significant environmental impacts.

As described above, the No Project Alternative (Alternative 1) would have greater impacts than the project. Potentially significant impacts on transportation and circulation would cause greater impacts on the environment. Further, only one of the three project objectives would be met.

Alternative 2 would reduce impacts on cultural resources, geology and soils, and hazards and hazardous materials when compared to the project. Impacts on all other resource area would be similar to the project. Therefore, the proposed project would have greater impacts than Alternative 2.

Alternative 3 would decrease impacts on aesthetics. Impacts on all other resource areas would be similar to the project. Therefore, the proposed project would have greater impacts that Alternative 3. Overall, Alternatives 2 and 3 would result in fewer environmental impacts than the project. Because Alternative 2 would reduce more impacts, Alternative 2 is the environmentally superior alternative.

TABLE 4.0-1
SUMMARY COMPARISON OF PROJECT OBJECTIVES

Project Objective	Proposed Project	Alternative 1 – No Project Alternative/Continuation of the Existing ECR/C Area Plan	Alternative 2 – No Parking Structure Alternative	Alternative 3 – Underground Parking Alternative
Maintain public safety and essential services	✓	✓	✓	✓
Improve emergency response times, neighborhood patrols, crime prevention programs, and gang suppression programs	✓	**X**	✓	✓
Provide programs for seniors and disabled residents	✓	**X**	✓	✓

✓*Meets project objectives*
X *Does not meet project objective*

TABLE 4.0-2
SUMMARY COMPARISON OF ENVIRONMENTAL IMPACTS OF ALTERNATIVES

Resource Category	Proposed Project	Alternative 1 – No Project Alternative/Continuation of the Existing ECR/C Area Plan	Alternative 2 – No Parking Structure Alternative	Alternative 3 – Underground Parking Alternative
Aesthetics	LTS	LTS (+)	LTS	LTS (-)
Air Quality	LTSM	LTS (+)	LTSM (-)	LTSM (+)
Biological Resources	LTSM	LTSM	LTSM	LTSM
Cultural Resources	LTSM	LTSM (+)	LTSM (-)	LTSM (+)
Geology and Soils	LTSM	LTS (+)	LTSM (-)	LTSM (+)
Greenhouse Gases and Climate Change	LTS	LTS (+)	LTS (-)	LTS (+)
Hazards and Hazardous Materials	LTSM	LTSM (+)	LTSM	LTSM (+)
Hydrology and Water Quality	LTS	LTS (+)	LTS	LTS
Noise	LTS	LTS	LTS	LTS
Transportation and Circulation	LTSM	PS (+)	LTSM	LTSM
Utilities and Service Systems	LTS	LTS (+)	LTS	LTS

LTS: less than significant
LTSM: less than significant with mitigation
NI: no impact
PS: potentially significant impact
(+) Level of impact is more severe than the project
(-) Level of impact is less severe than the project

5.0 – Other CEQA Analyses

This section discusses significant unavoidable impacts, growth-inducing impacts, and significant irreversible changes associated with the project.

5.1 SIGNIFICANT UNAVOIDABLE IMPACTS

California Environmental Quality Act (CEQA) Guidelines Section 15126.2(b) requires an environmental impact report (EIR) to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. In addition, CEQA Guidelines Section 15093(a) allows the decision-making agency to determine whether the benefits of a project outweigh its unavoidable adverse environmental impacts. The City of South San Francisco can approve a project with unavoidable adverse impacts if it prepares a Statement of Overriding Considerations setting forth the specific reasons for making such a judgment.

The project was found to have no significant and unavoidable impacts. As can be seen in Sections 3.0 through 3.11, all significant project impacts would be mitigated to a less than significant level.

5.2 GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126.2(d) requires that an EIR evaluate the growth-inducing impacts of a proposed project. A growth-inducing impact is defined by the CEQA Guidelines as:

> The way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth.

A project can have direct and/or indirect growth inducement potential. For example, direct growth inducement potential would result if a project involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities or if it involved a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand (*Napa Citizens for Honest Government v. Napa County Board of Supervisors*). Similarly, a project would indirectly induce growth if it removed an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an increased water supply in an area where water service historically limited growth could be considered growth-inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of a project. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with, or accommodated by, the land use plans and growth management plans and policies for the area affected. Local land use plans establish land use development patterns and provide growth policies that allow the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

PROJECT GROWTH EFFECTS

Direct Growth Effects

The project proposes to update the El Camino Real/Chestnut Avenue (ECR/C) Area Plan land use designations and construct a new community civic campus and fire station. The project does not include the construction of housing units in South San Francisco. Therefore, the project would not result in any direct growth effect in the city.

Indirect Growth Effects

The project would update the land use designation of the western project site from Public to ECR/C Mixed Use North High Intensity. While the project would construct a fire station on a portion of the western project site and would not construct housing units, the new land use designation would allow for the construction of housing units in the future. Any future housing units located on the western project site would not exceed the limits established in the ECR/C Area Plan. Therefore, growth-inducing impacts from any future new housing were analyzed in the original ECR/C EIR.

The project would also construct a new community civic campus and Police Station with office space for the City's Information Technology (IT) and Human Resources (HR) staff for the city. The creation of substantial new permanent employment opportunities can be an indirect growth effect. However, most of the jobs that would occupy these new buildings would move from other government offices in the city. The project would not create new job growth centers, and any increase in the number of government employees would be minor.

The project would not construct any new roadways or other infrastructure that could support substantial growth elsewhere in South San Francisco. Thus, updating the land use designation and constructing the project buildings would not remove any obstacles to growth, and the project would not indirectly induce substantial growth in the city.

The demolition, site preparation, and construction activities would require a substantial number of workers to complete. Project construction would take place over approximately 28 months. Construction would be temporary and would not indirectly induce substantial growth in the city.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2(c) describes irreversible environmental changes in the following manner:

> 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 nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Project implementation would result in the conversion of undeveloped land on the eastern project site to public uses. Development of the area was envisioned in the ECR/C Area Plan previously, but this project would change projected uses from residential/commercial to public. It is unlikely that circumstances would arise which would justify the return of those sites to their original condition, as surrounding areas are developed.

Project development would irretrievably commit building materials and energy to the construction and maintenance of buildings and infrastructure. Renewable, nonrenewable, and limited resources that would likely be consumed as part of project development would include but are not limited to oil, gasoline, lumber, sand and gravel, asphalt, water, steel, and similar materials. However, the project would not result in significantly increased demand on public services and utilities (see Section 3.11, Utilities and Service Systems).

The project would be required by law to comply with California Code of Regulations Title 24 and would not be expected to use energy or any other resources in a wasteful manner. The project would also be required to implement the City's Climate Action Plan (CAP) energy conservation measures (see Section 3.6, Greenhouse Gases and Climate Change). The project would also comply with green building and site design requirements in the ECR/C Area Plan such as passive heating/cooling strategies, low water consumption planting, and stormwater management.

5.4 ENERGY CONSUMPTION

Energy consumption is analyzed in this SEIR due to the potential direct and indirect environmental impacts associated with the project. Such impacts include the depletion of nonrenewable resources (oil, natural gas, coal, etc.) and emissions of pollutants during both the construction and long-term operational phases.

A summary of the impact conclusions related to energy is provided below.

Impact Number	Impact Topic	Impact Significance
5.4.1	Wasteful, inefficient, and unnecessary consumption of energy	Less than significant
5.4.2	Cumulative wasteful, inefficient, and unnecessary consumption of energy	Less than cumulatively considerable

ELECTRICITY/NATURAL GAS SERVICES

The Pacific Gas and Electric Company (PG&E) provides electrical and natural gas services to the South San Francisco area through state-regulated public utility contracts. PG&E's ability to provide its services concurrently for each project is evaluated during the development review process. The utility company is bound by contract to update its systems to meet any additional demand. PG&E's Electric and Gas Rules 15 and 16 establish guidelines for the extension of distribution lines necessary to furnish permanent services to customers. PG&E also outlines responsibilities for installation and extension allowances, as well as financial contributions by project applicants.

ENERGY USAGE

Energy usage is typically quantified using the British thermal unit (BTU). Total energy usage in California was 7,620 trillion BTUs in 2014 (the most recent year for which this specific data is available), which equates to an average of 196 million BTUs per capita. Of California's total energy usage, the breakdown by sector is 39 percent transportation, 24 percent industrial, 19 percent commercial, and 18 percent residential. Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use (EIA 2017). In 2014, taxable gasoline sales (including aviation gasoline) in California accounted for about 14.6 billion gallons of gasoline (BOE 2016).

The electricity consumption attributable to nonresidential land uses in San Mateo County from 2012 to 2015 is shown in **Table 5.0-1**. As indicated, demand has remained relatively constant since 2012.

TABLE 5.0-1
NONRESIDENTIAL ELECTRICITY CONSUMPTION IN SAN MATEO COUNTY 2012–2015

Year	Nonresidential Electricity Consumption (in millions of kilowatt-hours)
2015	2,907.24
2014	2,956.93
2013	2,961.08
2012	2,928.13

Source: ECDMS 2017

The natural gas consumption attributable to nonresidential land uses in San Mateo County from 2012 to 2015 is shown in **Table 5.0-2**. The nonresidential demand has decreased, even with an increase in population.

TABLE 5.0-2
NONRESIDENTIAL NATURAL GAS CONSUMPTION IN SAN MATEO COUNTY 2012–2015

Year	Nonresidential Natural Gas Consumption (in millions of therms)
2015	88.47
2014	87.33
2013	95.73
2012	92.41

Source: ECDMS 2017

Daily automotive fuel consumption in the county from 2012 to 2017 is shown in **Table 5.0-3.**

TABLE 5.0-3
ANNUAL AUTOMOTIVE FUEL CONSUMPTION IN SAN MATEO COUNTY 2012–2017

	Fuel Consumption (gallons)	
Year	On-Road Automotive	Off-Road Automotive (construction equipment)
2017 (projected)	310,199,265	2,414,426
2016	311,965,500	2,474,804
2015	311,874,980	2,505,687
2014	311,803,075	2,687,168
2013	310,308,765	2,862,056
2012	308,295,425	3,015,083

Source: California Air Resources Board, EMFAC2014

REGULATORY FRAMEWORK

State

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24)

Title 24, California's energy efficiency standards for residential and nonresidential buildings, was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and nonresidential buildings. In 2013, the CEC updated Title 24 standards with more stringent requirements. The 2013 standards are expected to substantially reduce the growth in electricity and natural gas use. Additional savings result from the application of the standards to building alterations. For example, requirements for cool roofs, lighting, and air distribution ducts are expected to save additional electricity. These savings are cumulative, doubling as years go by. The 2016 standards were approved and went into effect on January 1, 2017. California's energy efficiency standards are updated on an approximate three-year cycle.

California Green Building Standards

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen standards require new commercial and residential buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen also has voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2013 and went into effect July 1, 2014.

Recent CEQA Litigation

In *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, the court observed that CEQA Guidelines Appendix F lists environmental impacts and mitigation measures that an EIR may include. Potential impacts requiring EIR discussion include:

1) The project's energy requirements and its energy use 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.

2) The effects of the project on local and regional energy supplies and on requirements for additional capacity.

3) The effects of the project on peak and base period demands for electricity and other forms of energy.

4) The degree to which the project complies with existing energy standards.

5) The effects of the project on energy resources.

6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Local

City of South San Francisco Climate Action Plan

The City adopted its Climate Action Plan (CAP) in 2014. While the CAP is focused on efforts to reduce the city's impact on climate change and how to adapt to the effects of climate change, many of the goals and measures outlined in the CAP involve improving the energy efficiency, reducing the solid waste stream, and promoting the water use efficiency of the city's future and existing municipal and nonresidential facilities. Goals and measures that are relevant to the proposed project are listed below.

Nonresidential Facilities

Goal EE1: Increase Building Energy Efficiency.

Measure 3.1: Maximize energy efficiency in the built environment through standards and the plan review process. [This measure encourages new or remodeled building projects to exceed state efficiency standards and to participate in utility-sponsored or statewide energy efficiency programs.]

Measure 3.3: Encourage energy efficiency retrofits to the existing nonresidential building stock that reduce operating costs and increase industry competitiveness. [This measure encourages building owners, tenants, and PG&E to implement smart grid technology and complete energy efficiency projects.]

Goal EE2: Increase Alternative Energy Options in South San Francisco.

Measure 4.1: Promote installation of alternative energy facilities. [This measure includes the requirement for new conditioned spaces of 5,000 square feet or greater to meet 50 percent of the buildings' electricity need with renewable sources.]

Goal W1: Reduce Waste Disposal Rates and Volumes.

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.

Goal WE1: Conserve Water.

Measure 6.1: Reduce water demand. [This measure would support implementation of the Urban Water Management Plan to reduce potable water use by at least 20 percent and implementation and enforcement of the Water Efficient Landscape Ordinance.]

Measure 6.2: Provide alternative water resources for irrigation. [This measure would create policies for the capture of storm runoff and collaborating with other municipalities in a Recycled Water Project.]

Municipal Operations

Measure 7.1: Promote energy efficiency policies at municipal facilities.

Action 1. Conduct audits of existing facilities, prioritize improvements, and upgrade facilities to save energy.

Measure 7.2: Conserve municipal water. [Actions associated with this measure would install water-efficient landscaping on City properties, reduce turf areas and train City employees on the use and installation of water-saving technology and auditing.]

STANDARDS OF SIGNIFICANCE

Significance Criteria

Based on Appendix F of the CEQA Guidelines, energy impacts are considered to be significant if the project would result in any of the following:

1) Develop land uses and patterns that cause wasteful, inefficient, and unnecessary consumption of energy or construct new or retrofitted buildings that would have excessive energy requirements for daily operation.

The impact analysis focuses on the three sources of energy that are relevant to the proposed project: electricity, natural gas, and the fuel necessary for project construction.

The analysis of electricity/natural gas usage is based on California Emissions Estimator Model (CalEEMod) modeling, which quantifies energy use for occupancy**.** The results of the CalEEMod modeling are included in **Appendix GHG** of this Draft SEIR. Modeling was based primarily on the default settings in the computer program for San Mateo County, as well as on the transportation impact analysis prepared for the project (**Appendix TRA**). The amount of operational automotive fuel use was estimated using the California Air Resources Board's EMFAC2014 computer program, which provides projections for typical daily fuel usage in San Mateo County. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry (2016) General Reporting Protocol for the Voluntary Reporting Program, Version 2.1.

IMPACTS AND MITIGATION MEASURES

Wasteful, Inefficient, and Unnecessary Consumption of Energy

Impact 5.4.1 The project would not use energy in a wasteful manner. The impact would be **less** than **significant**.

2011 ECR/C Area Plan Impacts

The ECR/C EIR determined that development under the Area Plan would potentially increase the total demand for electricity and natural gas services in proportion to the increase in population and jobs. The commercial/industrial sector would remain the principal source of demand. The ECR/C EIR explained that even with additional demand, improvements in energy efficiency would be achieved through adherence to the California Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6) and the CALGreen Code (Title 24, Part 11), which outlines improved site planning and building design as well as energy conservation measures. The ECR/C EIR noted that reductions achievable through energy-efficient design were not included in the

estimates because the detail needed to estimate specific reductions was not available at the plan level. As such, the energy demand estimates were conservative. The ECR/C EIR concluded that energy use would not be wasteful, inefficient, or unnecessary, resulting in a less than significant impact (South San Francisco 2011b).

Subsequent Project Impacts

Energy consumption associated with the proposed project is summarized in **Table 5.0-4**.

TABLE 5.0-4
PROPOSED PROJECT ENERGY CONSUMPTION

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Electricity Consumption[1]	3,516,379 kilowatt-hours	0.12%
Natural Gas Consumption[1]	27,826 therms	0.03%
Automotive Fuel Consumption[2]		
Project Construction	183,350 gallons	7.59%
Project Operations	500,050 gallons	0.16%

Sources:
1. California Emissions Estimator Model (CalEEMod v. 2016.3.1)
2. California Air Resources Board, EMFAC2014

The project would consume energy for interior and exterior lighting, heating, ventilation, and air conditioning (HVAC), refrigeration, electronics systems, appliances, and security systems, among other things. The project would be required to comply with Title 24 building energy efficiency standards, which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. As depicted in **Table 5.0-4**, the project-related building energy would represent a 0.12 percent increase in electricity consumption and a 0.03 percent increase in natural gas consumption over the current countywide usage. The project would adhere to all federal, state, and local requirements for energy efficiency, including the Title 24 standards. The project would not result in the inefficient, wasteful, or unnecessary consumption of building energy.

As indicated, the project's fuel consumption during construction is estimated to be 183,350 gallons, which would increase fuel use in the county by 7.59 percent. As such, project construction would have a nominal effect on local and regional energy supplies. It should be noted that construction fuel use is temporary and would cease upon completion of project construction. No unusual project characteristics would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or the state. Therefore, it is expected that construction fuel consumption associated with the project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

As indicated in **Table 5.0-4**, project operation is estimated to consume approximately 500,050 gallons of fuel per year, which would increase countywide automotive fuel consumption by 0.16 percent. The amount of operational fuel use was estimated using the California Air Resources Board's EMFAC2014 computer program, which provides projections for typical daily fuel usage in San Mateo County. The project would not result in any unusual characteristics that would result in excessive long-term operational fuel consumption. Fuel consumption associated with vehicle trips

generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

The project would not cause a substantial increase in demand or transmission service that would result in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure. This impact would continue to be **less than significant**.

Mitigation Measures

None required.

CUMULATIVE IMPACTS

Cumulative Wasteful, Inefficient, and Unnecessary Consumption of Energy

Impact 5.4.2 The proposed project, combined with other related cumulative projects, would not develop land uses and patterns that cause wasteful, inefficient, and unnecessary consumption of energy or construct new or retrofitted buildings that would have excessive energy requirements for daily operation. The impact would be **less than cumulatively considerable**.

2011 ECR/C Area Plan Impacts

Forecast population and employment growth in the ECR/C Area Plan would result in increased energy usage. Energy use under the proposed plan would be moderated by California regulations, which will ensure that energy use will not be wasteful, inefficient, and unnecessary (South San Francisco 2011b, p. 5-4).

Subsequent Project Impacts

Quantifying and/or analyzing energy consumption by cumulative projects in the area would be speculative in nature, as the proposed land use types, intensities, and sizes of all projects are unknown at this time. However, each cumulative project would require separate discretionary approval and CEQA assessment, which would address potential energy consumption impacts and identify necessary mitigation measures, where appropriate.

As noted in Impact 5.4.1, the project would not result in significant energy consumption impacts and would not be considered inefficient, wasteful, or unnecessary with regard to energy. Thus, the project's contribution would continue to be **less than cumulatively considerable.**

Mitigation Measures

None required.

5.5 REFERENCES

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