DRAFT

COLLEGE OF SAN MATEO BUILDING 20 DEMOLITION SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

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July 2018

ICF. 2018. *College of San Mateo Building 20 Demolition Subsequent Environmental Impact Report*. Draft. July. (ICF 00602.17.) San Francisco, CA. Prepared for San Mateo County Community College District, San Mateo, CA.

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Acronyms and Abbreviations

2015 Certified EIR	Final Environmental Impact Report for the 2015 Facilities Master Plan Amendment Project
AEP	Association of Environmental Professionals
ASTM	American Society for Testing and Materials
dBA	A-weighted decibel
BAAQMD	Bay Area Air Quality Management District
Basin Plan	Water Quality Control Plan
BMPs	best management practices
BRWL	blue-rich white light lamps
CAA	California Ambient Air Quality Standards
CAAQS	California Ambient Air Quality Standards
Cal-OSHA	California Occupational Safety and Health Administration
CAP	Climate Action Plan
CO_2	carbon dioxide
CO	carbon monoxide
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	cubic feet per second
CNDDB	California Department of Fish and Wildlife's Natural Diversity Database
CO_2e	carbon dioxide equivalent
Leq	combined average noise level
CSM	College of San Mateo
CWA	Clean Water Act
cy	cubic yards
dbh	diameter at breast height
DDT	Dichlorodiphenyltrichloroethane
decibel	dB
District	San Mateo County Community College District
DSA	Division of the State Architect
ESA	federal Endangered Species Act
FCI	Facilities Condition Index
fine particulate matter	PM2.5
HI	hazard index
HPD	Historic Properties Directory
IS/MND	Initial Study/Mitigated Negative Declaration
kWh	kilowatt-hours
L_{eq}	combined average noise level
L_{max}	maximum noise level
Lmax	maximum sound level

MBTA	Migratory Bird Treaty Act
methane	CH4
µg/m3	micrograms per cubic meter
mg/m3	milligrams per cubic meter
MMTBU	million BTU
MS4	Municipal Separate Storm Sewer Systems
msl	mean sea level
MT	metric tons
NAAQS	National Ambient Air Quality Standards
NO_x	nitrogen oxides
N_2O	nitrous oxide
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review
NWIC	Northwest Information Center
O&M	Operation and maintenance
OHP	Office of Historic Preservation
PCBs	Polychlorinated biphenyls
PM	particulate matter
PM10	particulate matter less than or equal to 10 microns
PM2.5	particulate matter less than or equal to 2.5 microns
ppm	parts per million
PPV	peak particle velocity
Project Change Site	Building 20 Complex
ROG	reactive organic gases
SEIR	Subsequent Environmental Impact Report
SIL	Significant Impact Level
SP	service population
SPCCP	Spill Prevention, Control, and Countermeasure Program
SR 92	State Route 92
sulfur oxides	SOx
SWMP	Stormwater Management Program
SWPPP	storm water pollution prevention plan
TACs	toxic air contaminants
TMDLs	total maximum daily loads
U.S.C.	United States Code

Executive Summary

This Draft Subsequent Environmental Impact Report (SEIR), State Clearinghouse #2015052007, has been prepared in accordance with the provisions of the California Environmental Quality Act (CEQA) to evaluate the proposed changes to the *San Mateo Community College District 2015 Facilities Master Plan Amendment Final Environmental Impact Report* (2015 Certified EIR), State Clearinghouse #2015052007, certified in December 2015. This SEIR analyzes a change in the 2015 Facilities Master Plan Amendment to include proposed demolition of existing structures at the Building 20 Complex at College of San Mateo and construction of a single surface parking lot in their place. As required by Section 15123 of the CEQA Guidelines, this Executive Summary contains the following.

- Project Under Review
- Project Objectives
- Project Impacts and Mitigation Measures
- Project Alternatives
- Potential Areas of Controversy/Issues to be Resolved

Project under Review

In December 2015, the San Mateo County Community College District (District) certified a Final Environmental Impact Report (2015 Certified EIR) for the 2015 Facilities Master Plan Amendment Project, which included planned improvements at each of the District's three campuses—Cañada College, College of San Mateo (CSM), and Skyline College. The Project evaluated in the 2015 Certified EIR included a number of improvements at CSM, including the construction of new Buildings 8 (Gymnasium) and 19 (Emerging Technologies), and the demolition of existing Buildings 8 (Gymnasium), 12 (East Hall), and 19 (Emerging Technologies). The Project also included the repair and repaving of the campus perimeter road, pedestrian path, and implementing landscape and hardscape improvements. These improvements were analyzed at a program level in the Certified EIR based on conceptual design elements such as general use types and development envelopes. The proposed Building 20 Complex buildings demolition and replacement with a single surface parking lot (the "Project Change") was not evaluated in the 2015 Certified EIR, nor were any of the currently proposed activities at the Project Change Site analyzed. Accordingly, the Project Change is evaluated in this Draft Subsequent EIR.

The Project Change would entail demolishing all existing structures and vegetation within the Project Change Site and replacing them with a single surface parking lot containing up to 208 uncovered parking stalls, along with attendant landscaping, lighting, signage, storm drainage, and security improvements. The Project Change would provide Americans with Disabilities Act (ADA)-accessible parking, direct access, and loading space for the new Building 19, Emerging Technologies, evaluated in the 2015 Certified EIR, as well as provide needed parking options for the much-utilized nearby Building 10 for students, employees, and the community/visitors. The Project Change is also needed as an adjacent construction staging site during the construction of the new Building 19.

Project Change Objectives

The District is proposing the Project Change in order to achieve the following objectives:

- Provide parking, direct access, and loading space for the new Building 19, Emerging Technologies.
- Provide a staging area for the construction of the new Building 19, Emerging Technologies, that is adequately sized and located so as to minimize environmental impacts and disruptions to ongoing campus activities during Building 19 construction.
- Expand parking options on the east side of the campus to better serve current students, staff, and the community/visitors who access much-utilized facilities such as Building 10.
- Improve access for disabled persons.
- Ensure safety of students and faculty by removing unsafe structures.

Project Impacts and Mitigation Measures

Summary of Project Impacts, including the Project Change

The Project impacts, including those of the Project Change, are summarized in Table ES-1 (presented at the end of this Executive Summary). The significance of impacts before mitigation is presented first. If significant, then feasible mitigation measures are presented (if available). Then the level of significance after mitigation is identified. The table includes mitigation measures identified first in the EIR for the 2015 Facilities Master Plan as well as new mitigation measures identified in this Subsequent EIR. Refer to Chapter 3, *Setting, Impacts, and Mitigation Measures*, for a detailed discussion of Project Change impacts and detailed description of the mitigation measures.

Significant and Unavoidable Project Impacts

Significant and unavoidable impacts are those that cannot be reduced to a less-than-significant level with mitigation or for which no feasible mitigation is available. The Project, including the Project Change, would have the significant and unavoidable impacts identified in the 2015 Certified EIR. Additionally, there would be a cumulatively considerable air quality impact that was not identified in the 2015 Certified EIR that is related to demolition and construction activities for the Project Change:

- Expose existing sensitive receptors to substantial pollutant concentrations during construction (refer to Impact CSM-AQE-5 in Section 3.2, Air Quality).

Project Alternatives to the Proposed Project Change

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

- **No Project Alternative,** required by CEQA, assumes that the Building 20 Complex would not be demolished and that the parking lot and associated improvements would not be constructed. Existing parking available at the site would remain at its current level.
- **Building Demolition Only Alternative** assumes that Building 20, the greenhouse, and the lath house would be demolished but the parking lot and associated improvements would not be constructed. Existing parking available at the site would remain at its current level.
- **Reduced Parking Alternative** assumes that Building 20, the greenhouse, the lath house, and a portion of the South Garden would be demolished for construction of a smaller parking lot than that proposed under the Project Change. The parking lot would be smaller at 1.4 acres.

Potential Areas of Controversy and Issues to Be Resolved

Through the issuance of a Notice of Preparation (NOP) distributed to the State Clearinghouse, and circulated by the District on January 19, 2018, responsible agencies, interested organizations, and the public have had the opportunity to provide comments concerning the proposed Project Change, the alternatives to be considered, and issues of concern and controversy. The following areas of concern and potential controversy have been identified through the scoping process.

- Potential impacts to aesthetics due to removal of gardens including removal of botanical specimens (including a non-native dawn redwood) and commemorative plaques and due to new sources of light and glare from cars .
- Potential impacts to air quality and greenhouse gas (GHG) emissions due to building, tree, and landscaping removal and potential changes in vehicle traffic.
- Potential impacts to biological resources due to tree and plant removal and related impacts to native and migratory birds.
- Potential impact to hydrology and water quality with the removal of pervious surfaces and their replacement with impervious surfaces.
- Potential impacts to recreation, including loss of shaded, green space used by students, faculty, and nearby residents.
- Potential impacts to transportation and traffic due to potential changes in vehicle traffic.
- Relation of the Project Change to attainment of State's SB 32 GHG emissions targets as well as the SB 375 targets in Plan Bay Area.
- Need for the Project Change relative to parking demand.

The following issues need to be resolved:

- Consideration of comments on the Draft EIR, responses to substantive environmental issues raised in comments, and revisions to the Draft EIR as necessary based on information in comments or new information or clarifications developed in responses.
- Certification of the Final EIR after consideration of comments and responses and any public testimony.
- Approval of the Project Change or one of the alternatives.

Table ES-1. Summary of Project Impacts and Mitigation Measures

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Aesthetics			
Impact CSM-AES-1: Result in temporary visual impacts caused by construction activities.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-AES-1: Limit exterior construction activities to daylight hours at the College of San Mateo within 0.25 mile of residences. CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 dust at the College of San Mateo.	Less than significant
Impact CSM-AES-2: Substantially degrade the existing visual character or quality of the site and its surroundings, including views from scenic vistas.	Potentially significant	New Mitigation Measures CSM-AES-2: Relocate unique botanical specimens on the Building 20 Complex at CSM. CSM-AES-3: Relocate existing commemorative plaques.	Less than significant
Impact CSM-AES-3: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	No impact	None required	--
Impact CSM-AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-AES-4: Apply minimum lighting standards at the College of San Mateo.	Less than significant
Air Quality			
Impact CSM-AQE-1: Conflict with or obstruct implementation of an applicable air quality plan.	Less than significant	None required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact CSM-AQE-2: Violate a BAAQMD air quality standard or substantially contribute to an existing or projected air quality violation during Project construction.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-AQE-1: Implement BAAQMD basic construction mitigation measures to reduce construction-related NOX emissions at the College of San Mateo. CSM-AQE-2: Implement BAAQMD additional construction mitigation measures to reduce construction-related NOX emissions at the College of San Mateo. CSM-AQE-3: Utilize clean diesel-powered equipment during construction to control construction-related DPM emissions at the College of San Mateo. CSM-AQE-4: Offset NOX emissions generated during construction to quantities below applicable BAAQMD CEQA thresholds at the College of San Mateo. CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 Dust at the College of San Mateo.	Less than significant
Impact CSM-AQE-3: Violate a BAAQMD air quality standard or substantially contribute to an existing or projected air quality violation during Project operation.	Less than significant	None required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact CSM-AQE-4: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-AQE-1: Implement BAAQMD basic construction mitigation measures to reduce construction-related NOX emissions at the College of San Mateo. CSM-AQE-2: Implement BAAQMD additional construction mitigation measures to reduce construction-related NOX emissions at the College of San Mateo. CSM-AQE-3: Utilize clean diesel-powered equipment during construction to control construction-related DPM emissions at the College of San Mateo. CSM-AQE-4: Offset NOX emissions generated during construction to quantities below applicable BAAQMD CEQA thresholds at the College of San Mateo. CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 dust at the College of San Mateo.	Less than significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact CSM-AQE-5: Expose existing sensitive receptors to substantial pollutant concentrations during construction.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-AQE-2: Implement BAAQMD additional construction mitigation measures to reduce construction-related NOX emissions at the College of San Mateo. CSM-AQE-3: Utilize clean diesel-powered equipment during construction to control construction-related DPM emissions at the College of San Mateo. CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 dust at the College of San Mateo. CSM-AQE-6: Install filtration systems on ventilation and recirculation systems at the College of San Mateo and at off-site receptors over BAAQMD PM 2.5 thresholds during construction.	Significant and Unavoidable
Impact CSM-AQE-6: Create objectionable odors affecting substantial number of people.	Less than significant	None required	--
Biological Resources			
Impact CSM-BIO-1: Impact special-status plant species.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-BIO-1: Implement special-status plant species avoidance and revegetation measures at the College of San Mateo.	Less than significant
Impact CSM-BIO-2: Impact special-status bird species.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-BIO-2: Implement white-tailed kite and other nesting bird avoidance measures at the College of San Mateo.	Less than significant
Impact CSM-BIO-3: Impact special-status bats.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-BIO-3: Implement fringed myotis, pallid bat, and hoary bat avoidance measures at the College of San Mateo.	Less than significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact CSM-BIO-4: Impact native wildlife nursery sites	Potentially significant	2015 Certified EIR Mitigation Measures CSM-BIO-2: Implement white-tailed kite and other nesting bird avoidance measures at the College of San Mateo.	Less than significant
Cultural Resources			
Impact CSM-CUL-1: Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.	Less than significant	None required	--
Impact CSM-CUL-2: Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-CUL-1: Stop work if cultural resources are encountered during ground-disturbing activities at the College of San Mateo.	Less than significant
Impact CSM-CUL-3: Disturb any human remains, including those interred outside of formal cemeteries.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-CUL-2: Stop work if human remains are encountered during ground-disturbing activities at the College of San Mateo.	Less than significant
Geology, Soils, and Paleontology			
Impact CSM-GEO-1: Expose people or structures to safety risks due to surface fault rupture resulting from seismic activity.	Less than significant	None required	--
Impact CSM-GEO-2: Expose people or structures to strong seismically induced groundshaking.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-GEO-1: Prepare a site-specific geotechnical investigation for all structures to be occupied by humans at the College of San Mateo and comply with recommendations.	Less than significant
Impact CSM-GEO-3: Expose people or structures to the effects of seismically induced ground failure, including liquefaction.	Less than significant	None required	--
Impact CSM-GEO-4: Accelerate erosion during Project construction and operation.	Less than significant	None required	--
Impact CSM-GEO-5: Result in loss of topsoil from Project construction and operation.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-GEO-2: Stockpile topsoil removed during construction at the College of San Mateo and reuse stockpiled topsoil during revegetation.	Less than significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact CSM-GEO-6: Increase risk of landslide, liquefaction, lateral spread, subsidence, or collapse, as a result of Project location on an unstable geologic unit or soil.	Less than significant	None required	--
Impact CSM-GEO-7: Increase risk of damage to Project structures as a result of Project location on expansive soils.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-GEO-1: Prepare a site-specific geotechnical investigation for all structures to be occupied by humans at the College of San Mateo and comply with recommendations.	Less than significant
Impact CSM-GEO-8: Result in direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.	Less than significant	None required	--
Greenhouse Gas and Energy			
Impact CSM-GHG-1: Generate GHG emissions during Project construction.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-GHG-1: Where feasible, implement BAAQMD's best management practices for GHG emissions at College of San Mateo. CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 dust at College of San Mateo.	Less than significant
Impact CSM-GHG-2: Generate GHG emissions during Project operation.	Less than significant	None required	--
Impact CSM-GHG-3: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than significant	None required	--
Impact CSM-GHG-4: Exacerbate risks to property and persons to otherwise avoidable physical harm as a result of inevitable climate change.	Less than significant	None required	--
Impact CSM-GHG-5: Lead to a wasteful, inefficient, and unnecessary usage of energy.	Less than significant	None required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Hazards and Hazardous Materials			
Impact CSM-HAZ-1: Cause a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during Project construction or from Project operation.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HAZ-1: Prepare and implement a Spill Prevention, Control, and Countermeasure Program for construction activities at the College of San Mateo.	Less than significant
Impact CSM-HAZ-2: Cause 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 during Project construction.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HAZ-2: Prepare a site safety plan (soil and groundwater management plan) to protect people from residual soil/groundwater contamination during construction at the College of San Mateo. CSM-HAZ-3: Implement measures to protect people from exposure to lead and asbestos in buildings during building renovation or demolition activities at the College of San Mateo.	Less than significant
Impact CSM-HAZ-3: Cause 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 during Project operation.	Less than significant	None required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact CSM-HAZ-4: Emit or involve handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HAZ-1: Prepare and implement a Spill Prevention, Control, and Countermeasure Program for construction activities at the College of San Mateo. CSM-HAZ-2: Prepare a site safety plan (soil and groundwater management plan) to protect people from residual soil/groundwater contamination during construction at the College of San Mateo. CSM-HAZ-3: Implement measures to protect people from exposure to lead and asbestos in buildings during building renovation or demolition activities at the College of San Mateo.	Less than significant
Impact CSM-HAZ-5: Be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	Less than significant	None required	--
Impact CSM-HAZ-6: Interfere with adopted emergency response plan or emergency evacuation plan.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-TRA-1: Implement a Traffic Control Plan during construction at the College of San Mateo.	Less than significant
Impact CSM-HAZ-7: Expose people or structures to a significant risk of loss, injury, or death involving wildland fires.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HAZ-4: Comply with legal requirements for fire prevention during construction activities at the College of San Mateo. CSM-HAZ-5: Create and maintain adequate firebreaks and practice fire prevention at the College of San Mateo.	Less than significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Hydrology and Water Quality			
Impact CSM-HYD-1: Violate any water quality standards or waste discharge requirements and/or otherwise substantially degrade water quality.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HYD-1: Implement erosion-control measures to protect water quality during construction at the College of San Mateo. CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo. CSM-HAZ-1: Prepare and implement a spill prevention, control, and countermeasure program for construction activities at the College of San Mateo. CSM-HAZ-2: Prepare a site safety plan (soil and groundwater management plan) to protect people from residual soil/groundwater contamination during construction at the College of San Mateo. New Mitigation Measures CSM-HYD-3: Design and maintain stormwater treatment features as postconstruction measures at the Building 20 Complex at the College of San Mateo.	Less than significant
Impact CSM-HYD-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo.	Less than significant

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Impact CSM-HYD-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 that would result in substantial erosion or siltation onsite or offsite, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HYD-1: Implement erosion-control measures to protect water quality during construction at the College of San Mateo. CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo. CSM-HYD-4: Design the site so that post-project peak runoff rates are at or below pre-project peak runoff rates.	Less than significant
Impact CSM-HYD-4: Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo. New Mitigation Measures CSM-HYD-4: Design the site so that post-project peak runoff rates are at or below pre-project peak runoff rates.	Less than significant
Impact CSM-HYD-5: 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 or place within a 100-year flood hazard area structures that would impede or redirect flood flows.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo. New Mitigation Measures CSM-HYD-4: Design the site so that post-project peak runoff rates are at or below pre-project peak runoff rates.	Less than significant
Impact CSM-HYD-6: Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	No impact	None required	--
Impact CSM-HYD-7: Contribute to inundation by seiche, tsunami, or mudflow.	Less than significant	None required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Land Use and Planning			
Impact CSM-LUP-1: Physically divide an established community.	No impact	None required	--
Impact CSM-LUP-2: Conflict with applicable land use plans, policies, or regulations.	No impact	None required	--
Impact CSM-LUP-3: Conflict with any applicable habitat conservation plan or natural community conservation plan.	No impact	None required	--
Noise			
Impact CSM-NOI-1: Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-NOI-1: Employ noise-reducing construction practices at the College of San Mateo.	Less than significant
Impact CSM-NOI-2: Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels.	Less than significant	None required	--
Impact CSM-NOI-3: Result in a permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Less than significant	None required	--
Impact CSM-NOI-4: Result in a temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-NOI-1: Employ noise-reducing construction practices at the College of San Mateo.	Less than significant
Impact CSM-NOI-5: Be 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 public use airport and expose people residing or working in the Project area to excessive noise levels.	No impact	None required	--
Impact CSM-NOI-6: Be located in the vicinity of a private airstrip and expose people residing or working in the Project area to excessive noise levels.	No impact	None required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Population and Housing			
Impact CSM-POP-1: Directly induce substantial population growth due to expanding existing facilities or developing new residential units.	No impact	None required	--
Impact CSM-POP-2: Indirectly induce substantial population growth due to jobs created by Project construction.	Less than Significant	None required	--
Impact CSM-POP-3: Displace existing housing or people, necessitating the construction of replacement housing elsewhere.	No impact	None required	--
Public Services and Utilities			
Impact CSM-PSU-1: Reduce service ratios and response times for fire protection and police protection services during construction and operation.	Less than Significant	None required	--
Impact CSM-PSU-2: Increase student enrollment at schools or increase level of service required at other public facilities resulting in an adverse physical impact to these facilities.	No impact	None required	--
Impact CSM-PSU-3: Substantially increase demand for water supply at the Project site during construction and operation.	Less than Significant	None required	--
Impact CSM-PSU-4: Increase generation of wastewater at the Project site during construction and operation.	Less than Significant	None required	--
Impact CSM-PSU-5: Alter stormwater drainage patterns at the Project site.	Less than Significant	None required	--
Impact CSM-PSU-6: Increase generation of solid waste during construction and operation.	Less than Significant	None required	--
Impact CSM-PSU-7: Comply with federal, state, and local statutes and regulations related to solid waste.	No impact	None required	--

Impact	Significance before Mitigation	Mitigation	Significance after Mitigation
Recreation			
Impact CSM-REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.	Less than significant	None required	--
Impact CSM-REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	Less than significant	None required	--
Transportation and Traffic			
CSM-TRA-1: Result in a substantial increase in vehicle delay or deterioration of traffic operations during Project operations.	No impact	None required	--
CSM-TRA-2: Potentially conflict with transit services and facilities and policies and plans related to the services during project operations.	No impact	None required	--
Impact CSM-TRA-3: Potentially conflict with local pedestrian and bicycle facilities and policies and plans regarding the facilities during project operations.	No impact	None required	--
Impact CSM-TRA-4: Result in potential construction impacts on traffic operation and circulation, transit service, nonmotorized transportation facilities, and emergency access.	Potentially significant	2015 Certified EIR Mitigation Measures CSM-TRA-1: Implement a Traffic Control Plan during construction at the College of San Mateo.	Less than significant

Chapter 1
Introduction

1.1 Background

In December 2015, the San Mateo County Community College District (District) certified a Final Environmental Impact Report (2015 Certified EIR) for the 2015 Facilities Master Plan Amendment Project, which included planned improvements at each of the District's three campuses—Cañada College, College of San Mateo (CSM), and Skyline College. For CSM, the 2015 Certified EIR analyzed the following improvements (Project): the demolition of Buildings 8, 12, and 19; the construction of new Buildings 8 and 19; the modernization and renovation of Buildings 1, 3, 7, 9, 17, and 34, and the Corporation Yard; and potential renewable energy installations in Lots 1, 2, and 9, and on Buildings 7, 5, 8, and 9.[1] These improvements were analyzed at a program level in the Certified EIR based on conceptual design elements such as general use types and development envelopes. Project elements have and will continue to undergo design refinement through final design stages.

The District (Project Applicant) is now proposing changes to the Project analyzed in the 2015 Certified EIR. The proposed changes are within the Building 20 Complex (Project Change Site), which is located in the northeast portion of CSM and is bounded on the north by Perimeter Road, and on the south by existing Buildings 12 and 19. The Project Change Site includes Building 20, a greenhouse, a lath house,[2] landscaped open space, and three surface parking lots. The Project analyzed in the 2015 Certified EIR did not propose any changes within the Project Change Site because of pending litigation. Now that the litigation has concluded, the District is proposing to demolish the on-site structures and replace them with an expanded parking lot and accompanying accessibility and landscaping improvements (Project Change). The Project Change is being proposed as a result of the need to provide a construction staging area as well as parking and material loading access adjacent to the new Building 19, Emerging Technologies, which was evaluated in the 2015 Certified EIR. Since preparation of the 2015 Certified EIR, the District has further developed the design and programming of the new Building 19. The new Building 19 will serve students and the community as an academic and enterprise space providing business incubator and maker space programming. The programs housed within the new building will include the current Building 19 spaces and departments (Engineering, Drafting, Architecture, Electronics, Inspection, and Computer Science), with the addition of a Maker Space/Shop Spaces and a Co-Work Space. The multi-purpose Maker Space will house co-work/ tech shop/prototyping/ fabrication activities. The first floor of the 2-3 story building would be at the same grade as the Project Change Site, with access provided through connecting regular and freight elevators. The proposed layout of the Project Change Site will not only provide access for persons and deliveries, but will also create a flow of indoor/outdoor space, consistent with the guiding design concepts for the new Building 19. The Project Change would also serve as an adjacent construction staging site during the construction of the new

[1] While the 2015 Certified EIR analyzed master plan projects at three separate campuses, the Project Change that is evaluated in this SEIR is limited to the CSM campus. Therefore, throughout this SEIR, references to the previously approved Project only refer to the previously approved project at CSM, and do not include the Cañada College or Skyline College projects.

[2] A lath house is a small open structure made of wood fencing with a small enclosed storage room in which seedlings are cultivated and materials stored.

Building 19. Additionally, the structures on the Project Change Site are in great disrepair, are non-ADA compliant, and are known to contain asbestos. Further, the programs and courses that were previously located in Building 20 were discontinued or relocated to other campus buildings in 2011 or earlier, and the buildings have not been used for instructional purposes for several years.

This Subsequent Environmental Impact Report (SEIR) evaluates the potential environmental impacts associated with the Project Change to determine whether the Project Change would change the impact significance determinations for the Project in the 2015 Certified EIR.

Changes to the Building 20 Complex were previously evaluated in prior CEQA documents prepared by the District. In 2006, the District prepared and adopted an Initial Study/Mitigated Negative Declaration (IS/MND) for various facility improvements at CSM, including a renovation of the Building 20 Complex. However, after the 2006 IS/MND was certified, the District Administration re-examined the need for the Building 20 Complex, which no longer served active college programs and was in a state of disrepair. The District Administration ultimately proposed to demolish the Building 20 Complex and construct a single parking lot. In 2011, the District prepared an Addendum to the 2006 IS/MND to provide CEQA clearance for the proposed demolition of the Building 20 Complex and parking lot construction. The Addendum was adopted by the District Board in 2011.

Following its adoption, the Addendum was challenged in court by a group called "The Friends of the College of San Mateo Gardens" (Friends). After rulings at the Superior, Appellate, and Supreme Court levels, the Court of Appeal for the First Appellate District published a decision on remand from the California Supreme Court on May 5, 2017, concluding that, while the District's proposal to demolish the Building 20 Complex was not an "entirely new" project under CEQA, the Addendum to the 2006 IS/MND was not an appropriate CEQA document for the project because of "substantial evidence to support a fair argument that the project changes might have a significant effect on the environment." The Court of Appeal found that the plaintiffs had made a fair argument related to visual aesthetics. The ruling required the District Board to rescind its adoption of the 2011 Addendum, which it did in October 2017.

This SEIR is a new CEQA document that supplements the 2015 Certified EIR for the 2015 Facilities Master Plan Amendment Project. The SEIR does not rely on the previously prepared 2006 IS/MND or the 2011 Addendum to the IS/MND.

1.2 Purpose of the Subsequent EIR

As noted above, this SEIR evaluates the potential environmental impacts associated with the Project Change, which involves the demolition of the existing Building 20 Complex structures and adjacent landscaping, and the construction of a surface parking lot, including new landscaping, storm drainage, lighting, signage, and security improvements (refer to Chapter 2, *Project Description*). Due to the then-pending litigation, the demolition of these structures and the construction of the parking lot were not analyzed in the 2015 Certified EIR. As a result of the final decision in from the Court of Appeal in the litigation, consideration of the Project Change requires this subsequent environmental review under Section 15162 of the CEQA Guidelines.

Under CEQA, when an EIR has been certified, a subsequent EIR should be prepared if a lead agency determines on the basis of substantial evidence that one or more of the following circumstances has arisen:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The Project Change could potentially involve new significant environmental effects or a substantial increase in the severity of effects identified in the 2015 Certified EIR. Additionally, given the time that has passed since preparation of the 2015 Certified EIR, new circumstances and/or information relevant to the environmental analysis may exist. Therefore, the Project Change constitutes a substantial change to the Project previously reviewed under CEQA, which requires preparation of a subsequent EIR.

1.2.1 Lead Agency

Section 15367 of the CEQA Guidelines defines lead agency as "the public agency which has the principal responsibility for carrying out or approving a project." The San Mateo Community College District has the authority to approve demolition and construction activities at CSM and is therefore the "lead agency" for activities associated with the Project (with or without the Project Change).

1.2.2 Scope and Content of this Supplemental Environmental Impact Report

Scoping refers to the process used to assist the lead agency in determining the focus and content of an EIR. Scoping solicits input on the potential topics to be addressed in an EIR, the range of project alternatives, and possible mitigation measures. Scoping is also helpful in establishing methods of

assessment and in selecting the environmental effect to be considered. A Notice of Preparation (NOP) for the SEIR was published, distributed to the State Clearinghouse, and circulated by the District on January 19, 2018 (Appendix A). The NOP notified agencies, interested parties, and the public about the proposed Project Change and provided an opportunity to transmit comments and concerns on the scope and content of the SEIR. The 30-day NOP review period began on January 19, 2018 and ended on February 18, 2018.

As discussed above, this SEIR analyzes the potential environmental impacts that could result from the proposed Project Change. Because the activities associated with the Project Change were not evaluated in the 2015 Certified EIR for the Project, they present the possibility of potential new impacts, which need to be analyzed according to CEQA. Using the 2015 Certified EIR as the baseline, this SEIR assesses whether Project modifications proposed by the Project Change or changes in circumstances would result in new or greater significant impacts as compared to the impact levels disclosed in the 2015 Certified EIR, and whether new mitigation measures would be required to mitigate Project impacts.

This SEIR addresses topics where the Project Change would have the potential to change the impact level conclusions in the 2015 Certified EIR, or where new mitigation could be required, as determined by the District based on the scoping process. Topic areas addressed in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, include:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas and Energy
- Hydrology and Water Quality
- Noise
- Recreation

1.2.2.1 Topics Not Analyzed in Detail

The following topics are only reviewed in this Chapter and are not reviewed in further detail in Chapter 3 because they would not result in new significant impacts nor substantially more severe impacts than disclosed in the 2015 EIR. The reasons for this conclusion are summarized below.

- *Agriculture Resources.* As noted in the 2015 Certified EIR, no Important Farmlands, lands under Williamson Act or agricultural conservation easement, or other protected agricultural lands occur in the Project area. Therefore, the 2015 Certified EIR concluded there would be no impacts on agricultural resources. The Project Change Site is within the same Project area and likewise does not include any of the agricultural categories listed above; therefore, the Project Change would not result in a change to the 2015 Certified EIR's impact determination and no further evaluation is required.
- *Land Use and Planning.* As noted in the 2015 Certified EIR, the Project would not change the land use designation on the Project Site, conflict with any existing land use plans, or divide an existing community. Therefore, the 2015 Certified EIR concluded there would be no impacts

related to land use and planning at the Project Site. The Project Change would demolish existing buildings and construct a parking lot at the Project Change Site. The proposed parking lot is a consistent and compatible land use in the context of the CSM campus and would not change the land use designation, conflict with any existing land use plans, or divide an existing community. Therefore, the Project Change would not result in a change to the 2015 Certified EIR's impact determination and no further evaluation is required.

- *Mineral Resources.* As noted in the 2015 Certified EIR, there are no known mineral resources or locally important mineral resource recovery sites in the Project area. Therefore, the 2015 Certified EIR concluded there would be no impact on mineral resources. The Project Change is contained within the same Project area as described in the 2015 Certified EIR and does not include any additional land which may contain mineral resources. Therefore, the Project Change would not result in a change to the 2015 Certified EIR's impact determination and no further evaluation is required.
- *Population and Housing.* As noted in the 2015 Certified EIR, the Project includes upgrades and modernizations to existing facilities on the CSM campus which would serve current students and faculty without increasing staffing or enrollment. Additionally, the Project would not displace any housing units or people. Therefore, the 2015 Certified EIR concluded the Project would have no impact in terms of inducing population growth or displacing housing or people. The 2015 Certified EIR also noted that the Project could result in a temporary increase in construction-related job opportunities in the local area, but concluded that the impact would be less than significant as the construction work would be temporary and workers would be expected to be drawn from the local labor force. The Project Change would demolish unused campus instructional buildings and construct a parking lot to serve current students and faculty without increasing staffing or enrollment. It would not induce population growth or displace either housing or people, requiring construction of replacement housing elsewhere. Construction jobs necessary for the demolition and construction of the Project Change would also be temporary and drawn from the local labor pool. Therefore, the Project Change would not result in a change to the 2015 Certified EIR's impact determination and no further evaluation is required.
- *Public Services.* As noted in the 2015 Certified EIR, the Project would not increase student capacity, student enrollment, or staffing levels at CSM, and as such, would not significantly increase demand for fire protection service, police protection service, or school capacity (kindergarten through 12th grade). Therefore, the 2015 Certified EIR concluded that impacts to public services would be less than significant. The Project Change would demolish unused campus instructional buildings and construct a parking lot to serve current students and faculty without increasing staffing or enrollment. The proposed parking lot would reduce fire risks on the Project Change Site compared to the existing uses, which are in disrepair, surrounded by overgrown vegetation, and known to contain hazardous building materials (i.e., asbestos). Therefore, the Project Change would not result in a change to the 2015 Certified EIR's impact determination and no further evaluation is required.
- *Transportation and Circulation.* As noted in the 2015 Certified EIR, the Project includes upgrades and modernizations to existing facilities on the CSM campus which would serve current students and faculty. The Project would not increase enrollment, employment, or contribute to campus growth which could generate new vehicle trips, nor would it alter the existing transportation facilities internally or externally. Therefore, the 2015 Certified EIR concluded the Project would have no impact in terms of increasing vehicle delay, conflicting with transit, pedestrian, or bicycle services, facilities, or policies. With regard to construction traffic, the 2015 Certified EIR

concluded that, while the Project's activities would be retained within the campus, heavy-duty construction vehicles could temporarily disrupt traffic flows and transit services on public roadways. The Certified EIR concluded that this impact would be less than significant with the implementation of a Traffic Control Plan (Mitigation Measure CSM-TRA-1).

The Project Change would demolish existing unused campus buildings and create a new parking lot. It would not increase enrollment, employment, or contribute to campus growth which could generate new vehicle trips. Further, the additional parking spaces would not induce additional vehicle trips to CSM, as discussed in the Traffic Memorandum prepared for the Project Change by Hexagon Transportation Consultants (June 2018), which is included in Appendix D of this SEIR. If there were an existing parking shortage on campus, construction of a new parking lot could induce additional vehicle trips since students and/or staff who would normally use alternative modes of transportation (e.g., ride sharing or public transit) might be inclined to drive instead. Observations made at the campus in October 2017 established that there is currently no parking shortage at CSM because there are still available parking spaces in several parking lots when the parking demand is highest: during midday on a typical weekday. Therefore, the increased parking spaces resulting from the Project Change would not induce demand and result in more travel to the campus (Hexagon 2018). Further, the 2015 Certified EIR found that there would be no parking shortage with the full implementation of the Project. Additionally, the Project Change would be subject to Mitigation Measure CSM-TRA-1 to reduce traffic impacts during construction. Therefore, the Project Change would not result in a change to the 2015 Certified EIR's impact determination and no further evaluation is required.

- *Geology/Soils.* As noted in the 2015 Certified EIR, while the Project is not located within an Alquist-Priolo Fault Zone, the Project is located within a seismically active area. However, with implementation of the mitigation measures included on pages 3.5-20 – 23 of the 2015 Certified EIR, impacts related to geology and soils would be less than significant. The Project Change would demolish existing campus buildings and construct a parking lot for students and faculty. While grading would take place on the Project Change Site, resulting in potential for erosion, no subterranean work other than surface trenching would be required. Depending on the timing of construction of the Project Change in relation to the new Building 19, the parking lot could be constructed near steep slopes which could become unstable if they are disturbed and improperly shored up. However, through compliance with requirements stated in the 2015 Certified EIR to follow District best management practices (BMPs) as well as BMPs stipulated in the storm water pollution prevention plan in accordance with the State Stormwater National Pollutant Discharge Elimination System Construction General Permit, impacts would be less than significant and would not result in a change to the 2015 Certified EIR's impact determination. No further evaluation is required.
- *Hazards and Hazardous Materials.* As noted in the 2015 Certified EIR, the Project includes the demolition of buildings which could result in the release of asbestos-containing materials, lead-based paint, and other hazards. However, the 2015 Certified EIR concluded impacts would be less than significant with the implementation of mitigation measures, including the preparation of a site safety plan and the implementation of measures to protect people from exposure to lead and asbestos. The Project Change would include the demolition of Building 20 which is known to house hazardous building materials (i.e., asbestos). Demolition of Building 20 under the Project Change could release these materials into the environment. However, through compliance with the previously adopted mitigation measures detailed on pages 3.7-18 – 19 of the 2015 Certified EIR, impacts would be less than significant. Further, operation of a surface parking lot would not

require the substantial use of hazardous materials. Therefore, the Project Change would not result in a change to the 2015 Certified EIR's impact determination, and no further evaluation is required.

- *Utilities and Service Systems.* As noted in the 2015 Certified EIR, the Project would not increase student capacity, student enrollment, or staffing levels at CSM which could increase the demand on water supply, wastewater generation, and solid waste generation. Therefore, the 2015 Certified EIR concluded that impacts in these areas would be less than significant during operation. The 2015 Certified EIR noted that, while construction activities would generate some additional wastewater, these impacts would be less than significant as the additional wastewater would not be substantial and could be accommodated within the District's current system capacity. The 2015 Certified EIR noted that the Project construction and demolition activities would generate construction waste and debris, but waste would be received at Ox Mountain Landfill which has adequate capacity for the Project's construction debris and impacts would therefore be less than significant. The Project Change would demolish unused campus instructional buildings and construct a parking lot to serve current students and faculty. The Project Change would not increase student enrollment or staffing. Further, parking lots generate a minimal demand for water supply, wastewater generation, and solid waste generation. During construction, demolition of the existing structures would increase the amount of solid waste disposed of at Ox Mountain Landfill compared to levels analyzed in the SEIR. However, Ox Mountain Landfill has a current remaining capacity of 22,180,000 cubic yards (cy) (CalRecycle, 2018), and can therefore easily accommodate the estimated 300 cy of solid waste that would be hauled off-site. Therefore, the Project Change would not result in a change to the 2015 Certified EIR's impact determination, and no further evaluation is required.

  Impacts on drainage facilities from the Project Change are evaluated in detail in Chapter 3.6, *Hydrology and Water Quality*, of this SEIR.

1.2.3 Information Incorporated by Reference

This SEIR incorporates by reference information from the *Final Environmental Impact Report for the 2015 Facilities Master Plan Amendment Project* (2015 Certified EIR) (State Clearinghouse No. 2015052007) pursuant to CEQA Guidelines Section 15150. Specifically, the environmental setting and regulatory setting discussions in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, in the 2015 Certified EIR are incorporated by reference. The environmental setting discussion provides a description of the baseline conditions relevant to the 2015 Certified EIR analysis. The regulatory setting discussion provides a description of the policies and regulations that govern the resources analyzed in the 2015 Certified EIR analysis. Both discussions provide general background for the analysis in the 2015 Certified EIR and this SEIR. A copy of the 2015 Certified EIR with comments and responses and the record of project approvals is available to the general public at San Mateo County Community College District, 3401 CSM Drive, San Mateo, CA 94402.

1.3 Draft Subsequent Environmental Impact Report Organization

This Draft SEIR is organized into the following main sections:

- *Executive Summary* – This chapter provides a summary of the Project analyzed in the 2015 Certified EIR and the proposed Project Change, and includes a brief description of areas of controversy and issues arising from the proposed Project Change. It includes a table which summarizes impacts, mitigation measures, and the level of significance after mitigation of the Project with the Project Change.
- Chapter 1, *Introduction* – This chapter provides an overview of the Draft SEIR; it explains the purpose of the SEIR as it relates to the Project and the proposed Project Change; and it provides the scope and content of the SEIR and the organization of the document.
- Chapter 2, *Project Description* –The chapter includes a summary of the previously analyzed Project and provides detailed information regarding the Project Change, including components of the proposed Project Change, and information regarding demolition and construction activities, including a schedule of activities, types of equipment used, and materials generated from demolition.
- Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures* – This chapter analyzes the potential impacts of the proposed Project Change and makes a determination as to whether the Project Change would change the impact significance determinations for the Project in the 2015 Certified EIR, and whether new mitigation measures would be required. Impacts are described according to topic areas, and include descriptions of the environmental setting, methodology, significance criteria, impacts, applicable mitigation measures, and the significance of the impact following mitigation. The topics addressed in this chapter include:
    - 3.1 Aesthetics – Addresses potential impacts to visual resources in terms of the visual character and quality of viewsheds, key vantage points, and other site resources.
    - 3.2 Air Quality – Addresses potential impacts to air quality resulting from the construction and operation of the proposed Project Change.
    - 3.3 Biological Resources – Addresses potential impacts to biological resources on the Project Change Site, including wildlife and vegetation communities.
    - 3.4 Cultural Resources – Addresses potential impacts to resources of historic or archaeological importance on the Project Change Site, including resources of specific tribal importance.
    - 3.5 Greenhouse Gas Emissions and Energy – Addresses potential greenhouse gas emission impacts resulting from the construction and operation of the Project Change.
    - 3.6 Hydrology and Water Quality – Addresses potential impacts to water quality as well as storm water management and drainage issues resulting from the construction and operation of the proposed Project Change.
    - 3.7 Noise –Addresses potential impacts from noise on neighboring areas resulting from the construction and operation of the proposed Project Change.

  - 3.8 Recreation – Addresses the impacts on the availability of open space resulting from the construction and operation of the proposed Project Change as well as potential impacts to the demand for parks and recreational facilities.

- Chapter 4, *Other CEQA Considerations* – This chapter addresses cumulative impacts and other CEQA requirements as they relate to the Project Change.
- Chapter 5, *Alternatives* – This chapter compares the potential impacts resulting from the proposed Project Change with three alternatives: the No Project Change Alternative, Building Demolition Only Alternative, and the Reduced Parking Alternative. The chapter identifies the environmentally superior alternative.
- Chapter 6, *List of Preparers* – This chapter provides the names of chapter/report authors as well as persons and organizations that were consulted during the preparation of this Draft SEIR.
- Chapter 7, *References* – This chapter lists the references that were cited throughout this Draft SEIR.
- Appendices –This includes technical reports which support the analyses contained in this Draft SEIR as well as procedural documents.
  - Appendix A – Notice of Preparation
  - Appendix B – Air Quality and Greenhouse Gas Data and Calculations
  - Appendix C – Cultural Resources Evaluation Memorandum for Building 20 Complex at the College of San Mateo
  - Appendix D – Traffic Study for the Demolition of the College of San Mateo Building 20 Complex
  - Appendix E – Biological Resources Documentation

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Chapter 2
Project Description

2.1 Overview

As discussed in Chapter 1, *Introduction*, the Project analyzed in the 2015 Certified EIR included the following improvements at CSM: demolition of Buildings 8, 12, and 19; construction of new Buildings 8 and 19; modernization and renovation of Buildings 1, 3, 7, 9, 17, and 34, and the Corporation Yard; and potential renewable energy installations in Lots 1, 2, and 9, and on Buildings 7, 5, 8, and 9. The new Building 19, Emerging Technologies, will serve students and the community as an academic and enterprise space providing business incubator and maker space programming. The programs housed within the new Building 19 will include the current Building 19 spaces and departments (Engineering, Drafting, Architecture, Electronics, Inspection, and Computer Science), with the addition of a Maker Space/Shop Spaces and a Co-Work Space. The Building 20 Complex (Project Change Site) is located directly north of the new Building 19 site. No changes were assumed to occur at the Project Change Site in the 2015 Certified EIR analysis because of pending litigation at that time. The Project Change evaluated in this SEIR involves proposed physical activities on the Project Change Site to provide construction staging, parking, and material loading access to serve the new Building 19, Emerging Technologies. Specifically, these changes include the demolition of all on-site structures and construction of a surface parking lot and associated landscaping, storm drainage, lighting, signage, and security improvements on the Project Change Site. This chapter provides a summary of the Project analyzed in the 2015 Certified EIR and a description of the Project Change.

2.2 Description of the Previously Analyzed Project

The Project evaluated in the 2015 Certified EIR is located on the CSM campus, which occupies approximately 150 acres of land situated on a hilltop in the City of San Mateo, with views of San Francisco Bay and the Hillsborough Hills. CSM is landscaped with mature trees, shrubs, and sports fields and developed with classroom buildings, paved parking lots, walkways, and faculty housing. CSM can be accessed via Hillsdale Boulevard off State Route (SR) 92 on the south side of the campus. The San Mateo General Plan land use designation for CSM is Major Institution/Special Facility. Adjacent land use designations include Single-Family Residential to the southwest, High-Density Multi-Family to the south, Executive Office to the southeast, and Utilities to the northeast. The regional location of CSM is shown in **Figure 2-1**.

The Project included a number of improvements at CSM, including the construction of new Buildings 8 (Gymnasium) and 19 (Emerging Technologies), and the demolition of existing Buildings 8 (Gymnasium), 12 (East Hall), and 19 (Emerging Technologies). The Project also including the repair and repaving of the campus perimeter road, pedestrian path, and implementing landscape and hardscape improvements. These improvements were analyzed at a program level in the Certified EIR based on conceptual design elements such as general use types and development envelopes. Project elements have and will continue to undergo design refinement through final design stages. A list of the Project improvements evaluated in the 2015 Certified EIR is included in **Table 2-1** below.

As shown in **Table 2-1**, the Project evaluated in 2015 did not include any changes to the Building 20 Complex (i.e., Project Change Site) located directly north of the new Building 19 site.

Table 2-1. CSM Improvements Evaluated in the 2015 Certified EIR

Proposed Improvement	Facility	Approximate Size
Building Demolition	Building 8, Gymnasium	56,000 sf
	Building 12, East Hall	22,376 sf
	Building 19, Emerging Technologies	30,856 sf
New Building Construction	Building 8, Gymnasium	75,000–80,000 sf
	Building 19, Emerging Technologies	53,250 sf
Modernization and Renovation	Building 1, Public Safety/Multi-Disciplinary Building 3, Humanities/Arts Building 7, Facilities Maintenance Center Building 9, Library/KCSM Television and Radio Building 17, Student Support Services Building 34, Fire Science/Information Technology Services Management Corporation Yard	--[a]
Potential Renewable Energy Installations	Lots 1, 2, and/or 9 (solar)	30 kwh/sf/yr (maximum)
	Building 7, Facilities Maintenance Center (cogeneration)	30 kwh/sf/yr (maximum)
	Buildings 5 and 8 (solar and/or solar thermal)	30 kwh/sf/yr (maximum)
	Building 9 (Potential vertical axis turbine adjacent to B9)	30 kwh/sf/yr (maximum)

Notes:

[a] Modernization and renovation could include interior and exterior improvements, but the overall building structures and size would not change.

sf = square feet

kwh/sf/yr = kilowatt-hours per square foot per year

2.3 Description of Project Change

The Project Change would entail demolishing all existing structures and vegetation within the Project Change Site and replacing them with a single surface parking lot containing up to 208 uncovered parking stalls, along with attendant landscaping, lighting, signage, storm drainage, and security improvements. The Project Change would provide Americans with Disabilities Act (ADA)-accessible parking, direct access, and loading space for the new Building 19, Emerging Technologies, evaluated in the 2015 Certified EIR, as well as provide needed parking options for the much-utilized nearby Building 10 for students, employees, and the community/visitors. The Project Change would also serve as an adjacent construction staging site during the construction of the new Building 19. The location of the Project Change Site in relation to the CSM campus is shown in **Figure 2-2**. No changes are proposed outside the Project Change Site boundary, including the new Building 19 site.

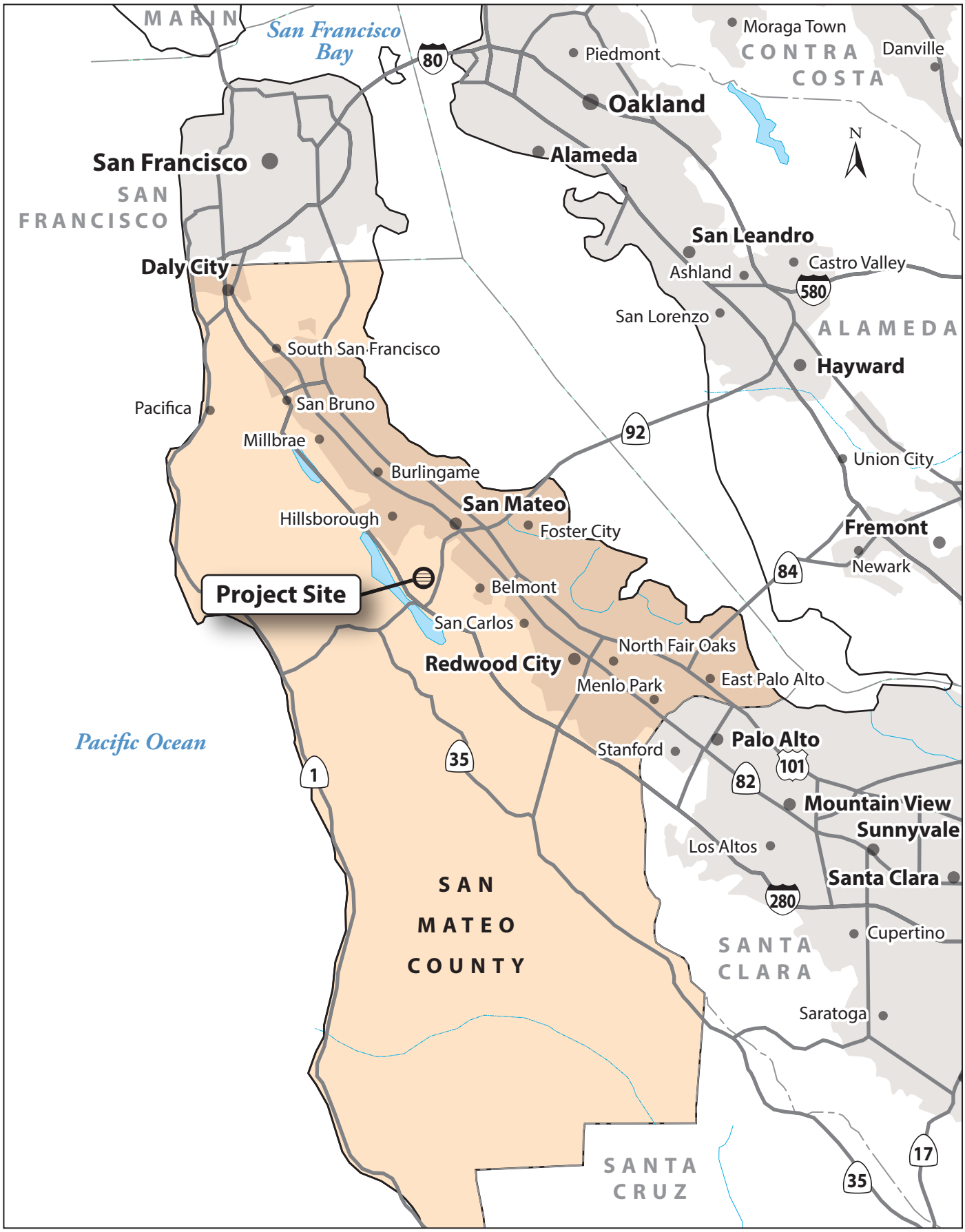

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Figure 2-1
Regional Location of Project Site

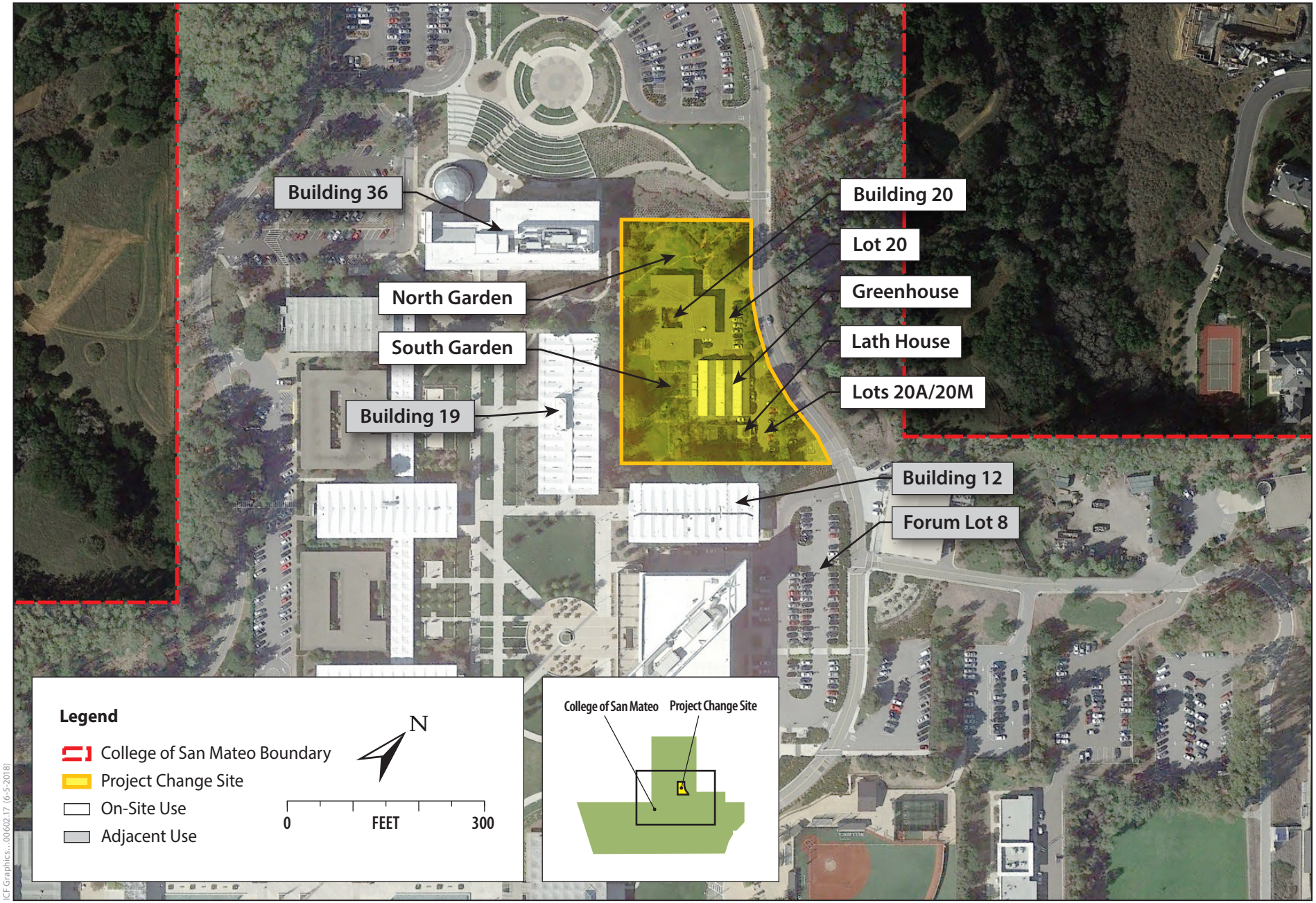

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Figure 2-2
Location of Project Change Site

The Project Change is being proposed as a result of the need to provide parking and material loading access adjacent to the new Building 19, Emerging Technologies. Since preparation of the 2015 Certified EIR, the District has further developed the design and programming of the new Building 19. The new Building 19 will serve students and the community as an academic and enterprise space providing business incubator and maker space programming. The programs housed within the new building will include the current Building 19 spaces and departments (Engineering, Drafting, Architecture, Electronics, Inspection, and Computer Science), with the addition of a Maker Space/Shop Spaces and a Co-Work Space. The multi-purpose Maker Space will house co-work/tech shop/prototyping/fabrication activities. The first floor of the 2-3 story building would be at the same grade as the Project Change Site, with access provided through connecting regular and freight elevators. The proposed layout will not only provide access for persons and deliveries, but will also create a flow of indoor/outdoor space, consistent with the guiding design concepts for the new Building 19.

The Project Change would also provide a construction staging area for the new Building 19, Emerging Technologies. Based on the District's past and current practices on other similar construction projects, approximately two acres are needed to provide adequate staging area for the demolition of existing Buildings 12 and 19 and construction of the new 53,250-sf Building 19, Emerging Technologies. For example, the staging area for the current construction of the 55,000-sf Building B23 at Cañada College is approximately 97,500 sf (2.24 acres) (Lo pers. comm.). The 86,435-sf (2 acre) Project Change Site would provide adequate staging area for construction equipment, demolition debris, and building materials associated with the Building 19, Emerging Technologies project. Furthermore, the Project Change Site is located directly adjacent to the Building 19 site, along the perimeter of campus, with direct access to the east side of Perimeter Road. Without the Project Change, construction staging for the Building 19 project would have to be provided across the main quad at the north end of campus, between Buildings 18 and 36. This other area is only accessible from the opposite end of Perimeter Road on the west side of campus. Staging at this other location would disturb existing improvements, require lengthier access points/paths of travel for construction equipment and persons navigating around construction areas, generate more noise in the core of campus which would disturb student learning, and create potential safety impacts to pedestrians who need to access academic buildings from the core campus and quad.

The Project Change would also provide additional parking for the much-utilized nearby Building 10 for students, employees, and the community/visitors. A central campus hub, Building 10 includes staff offices, classrooms, event space, the campus bookstore, and essential student services including enrollment, admissions/records, financial aid, counselling, and career services. The District estimates that on average, approximately 2,700 people access Building 10 each day (Lo pers. comm.). Large events are held up to three times a week. Building 10 is currently served by two small lots: Bulldog Lot 9 (Staff and Student Parking) and Forum Lot 8 (Disabled and Visitor Parking). These two lots currently provide 287 spaces and are often full. A parking survey conducted by Hexagon Transportation Consultants on October 24, 2017 showed both lots parked at 100 percent capacity (Hexagon Transportation Consultants 2018). The Project Change would provide up to 208 additional parking spaces in the vicinity of Building 10 and would be approximately the same distance from Building 10 as Bulldog Lot 9.

This section includes a description of the proposed demolition activities and construction included in the Project Change. Elements of the Project that would not be modified by the Project Change are not discussed below. Elements of the Project Change that could affect the conclusions reached in the 2015 Certified EIR are discussed in greater detail throughout this SEIR.

2.3.1 Project Change Objectives

The District is proposing the Project Change in order to achieve the following objectives:

- *Provide parking, direct access, and loading space for the new Building 19, Emerging Technologies*. The design vision for the new Building 19 is to create an active and vibrant student- and community-serving space that embraces ever-changing advances in technology and capitalizes on the entrepreneurial mentality of Silicon Valley. The new Building 19 will be a highly flexible, industrial-looking building that includes classrooms as well as large, programmable spaces. The new Maker Space is envisioned to have roll-up garage doors to take advantage of views and the outdoor environment, and also create a more inviting space for the community. The first floor of the new Building 19 will be at the same grade as the Project Change Site. By providing parking and loading space on the Project Change Site, the District will be able to provide essential access to Building 19 for persons and deliveries, and create a flow of indoor/outdoor space that fulfills the design vision and programming objectives for Building 19.
- *Provide a staging area for the construction of the new Building 19, Emerging Technologies, that is adequately sized and located so as to minimize environmental impacts and disruptions to ongoing campus activities during Building 19 construction.* Approximately two acres are needed to provide adequate staging area for the demolition of existing Buildings 12 and 19 and construction of the new Building 19, Emerging Technologies. The Project Change Site is located directly adjacent to the Building 19 site, along the perimeter of campus, with direct access to the east side of Perimeter Road. Without the Project Change, construction staging for the Building 19 project would have to be provided across the main quad at the north end of campus, between Buildings 18 and 36, several hundred feet from the Building 19 construction site. This location would result in greater disruption to campus activities, lengthier travel for construction vehicles and equipment, higher noise levels, and potential safety impacts to pedestrians crossing the north quad compared to the Project Change Site.
- *Expand parking options on the east side of the campus to better serve current students, staff, and the community/visitors*. With student services (admission, counseling, financial aid, etc.) relocated to Building 10 in 2012, more parking spaces are needed on the east side of the CSM campus. Building 10 is currently served by two small lots: Bulldog Lot 9 (Staff and Student Parking) and Forum Lot 8 (Disabled and Visitor Parking). These two lots currently provide 287 spaces and are usually full. The construction of 208 parking stalls at the Project Change Site would address this need by providing parking access closer to the much-utilized Building 10 for students, employees, and the community/visitors.
- *Improve access for disabled persons*. The Project Change Site contains buildings and brick pathways which are non-ADA compliant. The Project Change Site is also situated one level below the central portion of the campus with access currently provided via an outdoor staircase. As part of the new Building 19 project, the staircase would be removed and the first floor of Building 19 would be constructed at the same grade as the Project Change Site. Direct access to the upper floors of Building 19 would be provided via elevators. The Project Change would remove existing buildings and brick pathways and construct a new parking lot with seven handicapped accessible stalls that would have direct access to the Building 19 elevators, thereby improving parking accessibility and mobility for disabled students.
- *Ensure safety of students and faculty by removing unsafe structures*. The programs and courses that were previously located in Building 20 were discontinued or relocated to other campus buildings in 2011 or earlier, and the buildings are no longer used. The District's facilities

condition database indicates that all building systems in the Building 20 Complex are beyond their service life, except for the floor slab, exterior walls, and roof. The Facilities Condition Index (FCI) for Building 20 is 68.36 percent, which indicates it is in very poor condition.[1] In addition, Building 20 and the greenhouse are known to contain hazardous building materials (i.e., asbestos). For these reasons, these structures have been underutilized in recent years. The Project Change would remove unused, unsafe structures which are over 50 years old, in a state of disrepair, and which have not been utilized by campus programs in several years.

2.3.2 Project Change Site and Existing Uses

The Project Change Site is an approximately two-acre area located in the northeast portion of the CSM campus, north of and adjacent to Building 12 and east of Building 19 (both of which will be demolished under the previously approved Project). Existing uses on the Project Change Site are listed in **Table 2-2** and further described below. All components of the Project Change Site are in disrepair and are not in use by CSM.

Table 2-2. Existing Conditions at the Project Change Site

Component	Estimated Area (Square Feet)
North Garden	19,185
South Garden	13,620
Courtyard and landscaping islands	4,790
Subtotal, landscaping	37,595
Buildings, asphalt parking, sidewalks	48,840
Total area	**86,435**

- *Building 20.* Building 20 is an approximately 6,991-sf cast-in-place concrete building containing one classroom and lab facilities. The building is in disrepair and known to contain hazardous building materials (i.e., asbestos). The programs and courses that were previously located in Building 20, which include floristry and horticulture instruction as well as student services, were discontinued or relocated to other campus buildings in 2011 or earlier. No programs or courses are currently housed in Building 20, and the building has been vacant for several years.
- *Greenhouse and lath house.* The greenhouse is a glass and metal frame structure formerly housing plant specimens for horticulture and other science courses. As with Building 20, the greenhouse is also in disrepair and known to contain hazardous building materials (i.e., asbestos). The buildings are rarely used since the horticulture and floristry programs have been discontinued. Together the greenhouse and lath house comprise 6,135 sf.

[1] An FCI represents the ratio of the cost to correct a facility's deficiencies to the current replacement value of the facility. For example, if a building's replacement value is $1,000,000 and the cost of correcting its existing deficiencies is $100,000, the building's FCI is $100,000 ÷ $1,000,000; or 0.10 or 10 percent. The larger the FCI, the poorer condition of the facility. General industry guidelines are: 0 - 5% is good, 5.01 - 10% is fair, and greater than 10% is poor. (See Facility Utilization Space Inventory Option Net (FUSION) dictionary at http://cccfusion.org/UserResources/Dictionary/tabid/478/FilterID/259/Default.aspx [FUSION is part of a state-wide program managed by the Foundation for California Community Colleges (FCCC) and the California Community Colleges Chancellor's Office (CCCCO) with the goal to streamline the process for funding, managing and completing community college facility projects.])

- *Garden areas.* The garden area on the north side of Building 20 (North Garden) consists of a lawn, a circular brick walkway, and a landscaped area set against a slope. The garden area on the south side of Building 20 (South Garden) consists of two separate components: an educational demonstration garden consisting of planting beds interspersed with small pathways, and a landscaped area that includes a semi-mature, non-native *Metasequoia glyptostroboides* (dawn redwood) tree. As shown in Table 2-2, together the North Garden and South Garden comprise 32,805 sf. Approximately 151 trees are located on the Project Change Site. Refer to Section 3.3, *Biological Resources*, for the types and sizes of existing on-site trees.
- *Parking lots.* Three parking lots (20, 20A, and 20M) containing approximately 40 combined parking spaces are located within the Project Change Site. Parking lot 20 covers an area of 6,900 sf. Parking lot 20A covers an area of 4,780 sf. Parking lot 20M covers an area of 2,980 sf. The three parking lots together cover a total area of 14,660 sf.

2.3.3 Demolition of Building 20 Complex

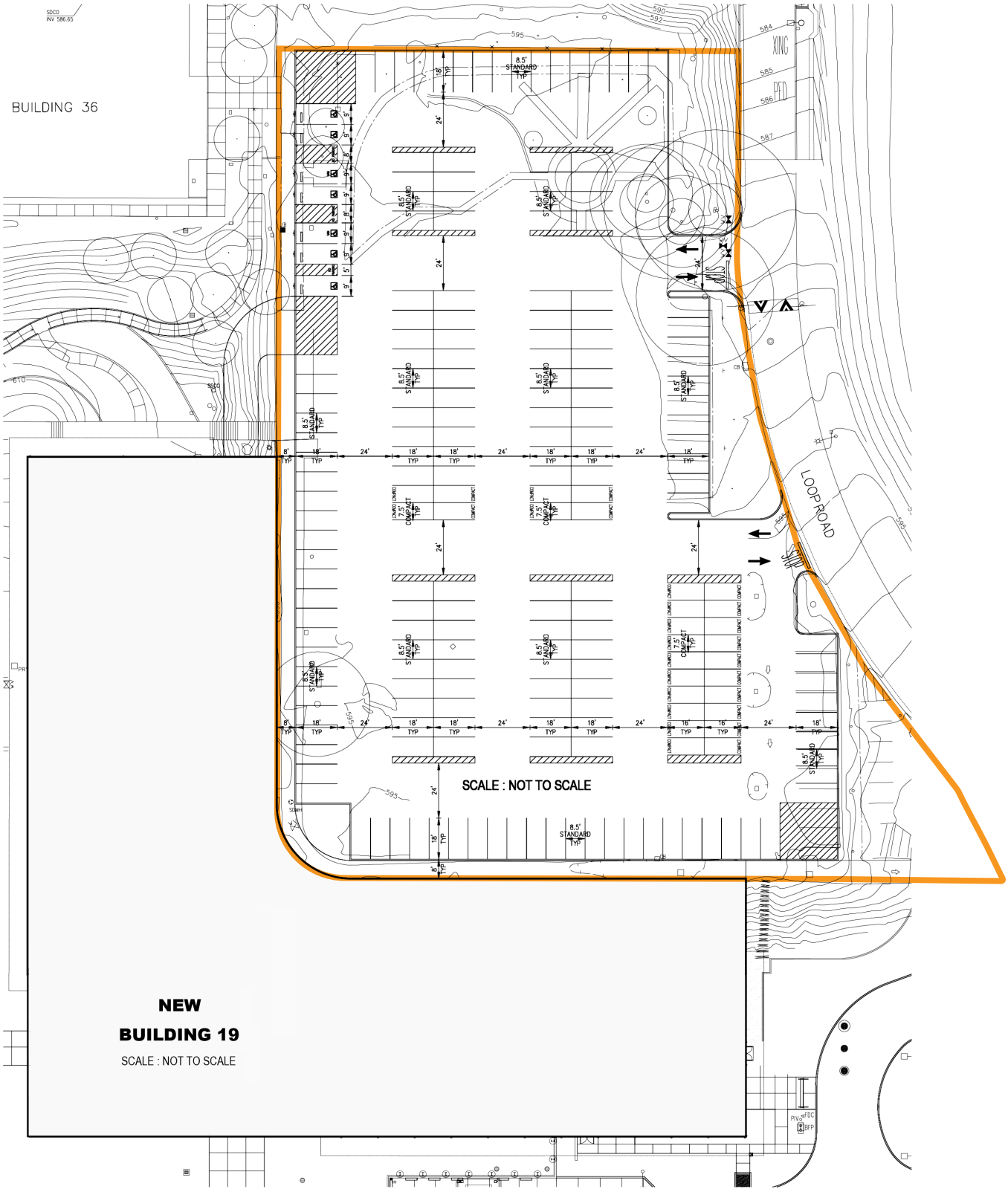
The Project Change proposes to demolish all existing structures on the Project Change Site, including Building 20, the greenhouse, and the lath house. The North and South Gardens and their accompanying plantings, trees, and landscaping would also be removed. The three existing parking lots would also be demolished. The Project Change Site would be graded, paved, and striped to provide a surface parking lot with up to 208 parking stalls. Perimeter landscaping would be installed around the parking lot. A site plan for the proposed parking lot is shown in **Figure 2-3**.

2.3.3.1 Materials Generated from Demolition

Demolition of the existing uses on the Project Change Site would yield approximately 910 cubic yards (cy) of waste materials. Of the 910 cy of materials generated by demolition, approximately 610 cy would be concrete or asphalt which would be recycled onsite (**Table 2-3**).

Table 2-3. Materials Generated from Proposed Demolition Activities

Component	Estimated Materials Generated from Demolition (cubic yards)	Truck Loads (approximately)
Building 20	400 cy concrete	40
Greenhouse and lath house	100 cy concrete	10
Walkways (excluding the walkway between the two stairs at each end of Building 19)	50 cy concrete	5
Parking areas	160 cy asphalt and concrete	16
Planting and landscape area stripping	200 cy	20
Total Demolished	**910 cy**	
Total for on-site recycling	610 cy	
Total for off-site hauling to disposal location	300 cy	



Source: BKF Engineers, 2018.

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Figure 2-3
Proposed Parking Lot Plan

Demolition of this nature is generally accomplished utilizing a D-9 dozer with one ripping tooth, a large excavator, and a claw excavator. Demolished concrete and asphalt would be brought to an onsite crushing operation where it would be reduced to the allowable sizes for recycling as engineered fill and incorporated into future improvements.[2] The remaining approximately 300 cy would be comprised of glass, steel, wood, and miscellaneous rubbish and would be removed from the Project Change Site to licensed recycling and/or disposal facilities. Removal activities are expected to occur concurrently with demolition and recycling activities. All materials are expected to be removed from the Project Change Site in as few as two or as many as 20 trucks leaving the site per day, depending on the efficiencies determined by the construction contractor. Construction truck trip assumptions are provided in Appendix B.

The structures are known to contain hazardous building materials. A certified industrial hygienist has completed testing of the buildings materials and has developed plans and specifications for abatement of hazardous materials. Abatement would be completed by a licensed abatement contractor under the supervision of the certified industrial hygienist prior to the commencement of any demolition activities.

2.3.4 Parking Lot Construction

The Project Change would construct a surface parking lot of 69,850 sf with two access points from Perimeter Road. ADA-compliant pavement markings, curb and bollard painting, and parking stall striping would delineate 208 individual parking stalls. Parking stalls would be provided for standard, compact, accessible, and van accessible stalls (**Table 2-4**). The majority (80 percent) of the stalls would be standard (8.5’ x 18’) sized stalls. Seven handicapped accessible stalls (9.0’ x 18’) would be provided on the west side of the parking lot.

Table 2-4. Parking Stall Count for Project Change

Stall Type	Dimensions	Count	Percent of Total
Standard Stalls	8.5’ x 18’	166	80%
Compact Stalls	7.5’ x 16’	35	17%
Accessible Stalls	9.0’ x 18’	5	2%
Van Accessible Stalls	9.0’ x 18’	2	1%
Total		**208**	

2.3.5 Access and Circulation

Primary vehicular access to the proposed parking lot would be provided via the two existing 24-foot driveways off Perimeter Road, which would be repaved and re-striped (**Figure 2-3**). Pedestrian access would be provided via the sidewalk on Perimeter Road and the elevators in the new Building 19, which would replace the existing staircase from Building 12 to the south. The existing pedestrian walkways within the North and South Gardens would be removed.

[2] Demolition and disposal would be consistent with applicable laws and regulations summarized in the 2015 Certified EIR.

2.3.6 Landscaping

The Project Change would require the removal of the North and South Gardens. All on-site landscaping and trees would be removed, for a total of 151 tree removals (refer to Section 3.3, *Biological Resources*, for the types and sizes of existing on-site trees). Perimeter landscaping consisting of drought-resistant, native vegetation would be installed around the proposed parking lot (**Figure 2-4**). Perimeter landscaping would include approximately 24 replacement trees along with shrubs and groundcovers, with most vegetation concentrated along the southern parking lot frontages abutting the new Building 19.

2.3.7 Stormwater Drainage and Treatment

The Project Change would increase the amount of impervious surface area on the Project Change Site. Under current conditions, the impervious surface area is 16,585 sf, or 19.2 percent of the Project Change Site. Upon implementation of the Project Change, the impervious surface area would be approximately 69,850 sf, or 80.8 percent of the Project Change Site.

Stormwater flow rates in a 10-year storm event under current conditions are 4.7 cubic feet per second (cfs). The increased impervious surface area would increase stormwater flow rates to a predicted 6.2 cfs without introduction of treatment features or best management practices (BMPs; (Lo pers. comm). However, the proposed Project Change would include stormwater treatment features and BMPs designed to slow stormwater flow rates and promote infiltration. The District's 2016 Stormwater Management Plan (2016 SMP) includes BMPs such as treatment controls, operating procedures, and practices to control site runoff, spills and leaks, sludge or waste disposal, and/or drainage from raw material storage. Post-construction storm water management controls include permanent structural and non-structural BMPs including conservation of natural and permeable areas, permeable pavers, and mechanical storm drain filters. Treatment features and BMPs proposed for the Project may include bioswales, media filtration, or other mechanical means. Landscape design and practices in pollution prevention would also be considered as post-construction storm water management controls. The Project Change Site would be planned and designed such that post-project peak runoff rates are at or below pre-project peak runoff rates, as required. In addition, the District's SMP requires post-project peak flows to be mitigated to at or below pre-project conditions for up to the 50-year storm event, with the overflow sized to accommodate up to a 100-year storm event. The District reviews all plans for adherence to federal, state, and local building and health codes, and projects must be designed to the requirements of the Statewide Municipal Phase II MS4 Permit or the San Mateo County C3 criteria to prevent or minimize water quality and quantity impacts to the maximum extent practicable. A Stormwater Management Plan for the Project Change Site is not available at this time. Therefore, the analysis in Section 3.6, *Hydrology and Water Quality*, includes mitigation requirements for future stormwater infrastructure to ensure that all regulatory and District standards are met. As noted in **Mitigation Measure CSM-HYD-3**, the Project Change will need to provide approximately 0.064 acres (2,794 sf) of surface area for stormwater treatment.

PLANTING LEGEND

KEY	QTY	SYM	BOTANICAL/COMMON NAME
TREES			
AC	3		ACER CIRCINATUM/ VINE MAPLE
ACA	4		AESCULUS CALIFORNICA/ CALIFORNIA BUCKEYE
CO	7		CERCIS OCCIDENTALIS/ WESTERN REDBUD
PI	10		PRUNUS ILICIFOLIA LYONIA/ CATALINA CHERRY
SHRUBS			
AM	19		ACANTHUS MOLLIS/ BEARS BREACH
AU	66		ARCTOSTAPHYLOS UVI-URSI/ KINNIKINNICK
BT	87		BERBERIS THUNBERGII 'MONOMB'/ CHERRY BOMB BARBERRY
CD	20		CEANOTHUS 'DARK STAR'/ WILD LILAC
CK	48		COPROSMA KIRKII/ NCN
EC	40		ECHIUM CANDICANS/ PRIDE OF MADEIRA
HA	23		HETEROMELES ARBUTIFOLIA/ TOYON
LP	68		LIMONIUM PEREZII/ SEA LAVENDER
MP	20		MAHONIA PINNATA/ CALIFORNIA HOLLY GRAPE
PM	35		POLYSTICHUM MUNITUM/ WESTERN SWORD FERN
SL	11		SALVIA LEUCANTHA 'MIDNIGHT'/ MEXICAN BUSH SAGE
SH	54		SOLLYA HETEROPHYLLA 'BLUE BELLS'/ BLUEBELLS

Source: BKF Engineers, 2017

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Figure 2-4
Conceptual Landscape Plan

2.3.8 Construction

Demolition and construction activities associated with the Project Change would occur in stages. The first stage of demolition would include abatement and removal of hazardous materials from the structures at the Project Change Site. Thereafter, the existing Building 20 as well as slabs and foundations would be demolished, followed by the adjacent greenhouse and lath house. All on-site trees, plants, and landscaping elements would be removed from the Project Change Site. The three existing surface parking lots would also be removed. Removed asphalt paving and concrete would be recycled on-site to the extent feasible. A maximum of 20 trucks per day would enter and leave the Project Change Site and would travel a maximum of 50 miles per trip for deliveries and hauling. Materials would be transported to and from CSM along Perimeter Road to West Hillsdale Boulevard to State Route 92 (SR 92). From SR 92, trucks would head north to US-101 or south to I-280, depending on the final disposal location.

Upon completion of the demolition, the Project Change Site (approximately 86,435 sf) would be graded, and construction activities would commence. Piping would be extended from Building 34 to designated points of termination outside of the new Building 19 to facilitate movement of underground chilled water. The maximum anticipated depth of excavation for utility trenching would be approximately five feet below grade surface. The proposed parking lot would be paved and striped. Associated landscaping improvements, storm drainage, lighting, signage, and security features would then be constructed. Overall, demolition and construction would be completed within a period of approximately six months.

The normal working day for construction activities would be between 7:00 a.m. and 7:00 p.m. on weekdays. If construction is scheduled for Saturdays or Sundays to avoid disrupting college operations, construction hours would be between 9:00 a.m. and 5:00 p.m. Construction on Sundays would be avoided if possible, and there would be no construction on public holidays.

2.3.8.1 Construction Equipment and Duration

Information regarding the phases, duration, number of workers, and equipment type for demolition and construction of the Project Change is presented below (**Table 2-5**).

Table 2-5. Construction and Demolition Phase Activities

Phase	Approximate Duration (months)	Approximate Number of Workers	Types of Equipment
Demolition Phase	***2***	***8-16***	
Demolition of Building 20			Excavators
Demolition of lath house, greenhouse, and landscape			Excavators, D-9 Dozer, Crane
Concrete Recycling			Crushers
Haul Demolition Debris			Hauling Trucks

Phase	Approximate Duration (months)	Approximate Number of Workers	Types of Equipment
Construction Phase	***5***	***8-16***	
Rough Grading			D-9 Dozer, Compactor, Excavator, Dump Trunk, Water Truck
Utility Installation			Backhoe, Wheel Vibrator, Water Truck, Concrete Trucks, Dump Trucks
Concrete			Road Grader, Compactor, Water Truck, Concrete Truck, Dump Trucks
Paving and Striping			Road Grader, Paving Machine, Water Truck, Dump Trunks
Landscaping and Irrigation			Skid Steer Loader, Ripper, Backhoe, Auger, Rototiller, Water Truck, Dump Trucks, Material Deliveries

2.4 Required Approvals

Table 2-6 lists the anticipated permits and approvals that would be required for the Project Change.

Table 2-6. Required Permits and Approvals

Agency	Permit/Review Required
California Division of the State Architect[a]	Project approval, design review, and building inspection (if required)
San Mateo County Community Colleges District Board of Trustees	Certification of the SEIR and approval of the Project Change
San Francisco Bay Regional Water Quality Control Board	National Pollutant Discharge Elimination System General Permit for Construction Activities (General Construction Permit)

Notes:

[a] The California Division of the State Architect (DSA) currently acts as California's policy leader for public building design and construction, and provides design and construction oversight for community colleges, including the Project. DSA develops and maintains the accessibility standards and codes utilized in public and private buildings throughout California. Excellence in Public Buildings is a program developed by DSA and the Real Estate Services Division to shape the planning and construction of new public construction projects in California. These principles are compiled in *Excellence in Public Buildings—a Guide for Stakeholders,* which includes best practices and design guidelines. The Project, including the Project Change, would be subject to approval by DSA.

Chapter 3
Setting, Impacts, and Mitigation Measures

This chapter provides analyses of the physical impacts on the environment that could occur as a result of implementing the Project Change and whether those impacts would change the impact significance determinations for the Project in the 2015 Certified EIR. There is a separate section for each resource analyzed, as listed below. Each section presents a description of the environmental and regulatory setting for that resource, focusing on any changes that have occurred since the 2015 Certified EIR; significance criteria and methodology used in the impact analysis; and potential impacts and mitigation measures, including any new mitigation measures that were not in the 2015 Certified EIR.

This chapter comprises the following sections.

- 3.1, *Aesthetics*
- 3.2, *Air Quality*
- 3.3, *Biological Resources*
- 3.4, *Cultural Resources*
- 3.5, *Greenhouse Gas Emissions and Energy*
- 3.6, *Hydrology and Water Quality*
- 3.7, *Noise*
- 3.8, *Recreation*

As discussed in Chapter 1, *Introduction*, the Project Change would not have the potential to change the impact significance determinations for the Project in the 2015 Certified EIR for the following resources. Therefore, these topics are not discussed further.

- Agricultural Resources
- Geology/Soils
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Transportation and Circulation
- Utilities and Service Systems

3.1 Aesthetics

This section discloses and analyzes the potential change in Project impacts on aesthetics that would result from implementing the Project Change.

3.1.1 Regulatory Setting

The regulatory setting for aesthetics is described on pages 3.1-4, 3.1-5, 3.1-9, and 3.1-10 of the 2015 Certified EIR. These regulations include protections for San Mateo County scenic roadways that include Crystal Springs Road, Alameda de las Pulgas, SR 92, and Polhemus Road near CSM; minimizing the removal of visually significant trees and vegetation to accommodate structural development within the County; and limiting building heights, protecting heritage trees and street trees, and encouraging replacement plantings and the preservation and enhancement of aesthetic resources within the city of San Mateo. There are no designated state scenic highways within the vicinity of CSM. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIR is available for public review.

There are no new regulations related to aesthetics beyond those described in the 2015 Certified EIR, and no changes have been made to the regulations summarized in the 2015 Certified EIR that would affect the environmental analysis of the Project Change.

3.1.2 Environmental Setting

3.1.2.1 College of San Mateo

The environmental setting for aesthetics at CSM is described on pages 3.1-13–3.1-14 of the 2015 Certified EIR. This discussion describes that the campus is located on top of a hill that rises up in elevation from SR 92. CSM is developed with a variety of buildings that range between one and four stories that are generally lighter in color, many of which are dominated by large glass windows. Large mature trees exist throughout the campus and along the hillsides. The areas surrounding the campus are primarily residential, and consist mostly of single-family homes. From a distance, many homes in the surrounding communities to the north, east, and west can see some existing lights and buildings on the campus. However, views onto the campus are limited from the nearest public roadways that are close to the campus. From Tobin Clark Drive, some views of the College Center building and parking lots are available from a small segment where there is no existing development or large trees and shrubs between the campus and the street. From Sugar Hill Drive, views of parking lots, street and parking lot lighting, and limited views of portions of Building 36 in the North Gateway portion of the campus can be seen along a segment of the roadway where topography and lack of trees allow for the view. Scenic views available from Tobin Clark Drive and Sugar Hill Drive, however, include views of the surrounding San Francisco Bay Area but do not include views of the college campus. Overall, the CSM campus is generally buffered from surrounding areas due to its position at the top of a hill and landscaping, including mature trees that buffer views of the campus. County scenic roadways (SR 92, Crystal Springs Road, Alameda de las Pulgas, and Polhemus Road) do not have existing views of the campus due to distance, intervening topography and vegetation, or their orientation away from the campus. CSM and the surrounding area is well-lit at night and

ambient sky glow currently radiates from the area. Existing sources of nighttime lighting include interior and exterior lighting associated with the college and residential and commercial land uses. Expansive and distant 360-degree scenic vista views of the San Francisco Bay, the city of San Mateo, and surrounding hillside areas are available throughout the campus. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIR is available for public review.

The setting with regard to aesthetics at CSM has not changed substantially since the Certified Plan was prepared.

3.1.2.2 Project Change Site

Building 20 and the associated greenhouse and lath house are located on the northern side of the campus, off of Perimeter Road (also referred to as Loop Road), and surrounded by existing Buildings 12, 19, and 36. Building 20 is at a lower elevation than the surrounding buildings, partially obscured by mature trees and shrubs surrounding the Project Change Site.

Figure 3.1-1 shows images of the Project Change Site. As shown therein, the flat roof, large eaves that extend well beyond the wall face, and narrow band of windows along the top of many of the wall faces, just below the eaves, give Building 20 a squat-looking appearance. Building 20 is older than most of the surrounding buildings, has been vacant for several years, and appears to be deteriorating. In addition, Building 20 has an interior courtyard that is planted with horticultural specimens. The greenhouse and lath house, which are not in use, are also deteriorating and appear indicative of being out of use, with weeds growing amongst the weed fabric and remnant plants left growing in the lath house. The parking lots and pavement around the greenhouses are cracking, with weeds dispersed in the cracks and along the bases of the structures, creating trip hazards for pedestrians.

The Project Change Site also includes the North Garden in the northwest portion of the site. The garden features a small commemorative plaque on a rock, a circular pathway with radiating pathways, a lawn area, and garden beds. The pathway is mostly covered by overgrown vegetation and weeds. A California native plant garden, ceanothus and manzanita collection, and non-operating water feature are also present onsite. (Save the Garden Club 2010, n.d.). Large, mature trees shade the Project Change Site and provide aesthetic relief. In addition, trees, shrubs, and flowers provide visual interest. The planter beds, garden areas, shrubbery along the base of Building 20, and landscaping on perimeter slopes up to surrounding buildings appear are more naturalized and incongruous with adjacent landscaped and hardscaped areas such as the Science Building amphitheater and vicinity.

The Project Change Site includes a large, dawn redwood tree that has a small plaque dedicating the tree as “Adrian’s Tree”, in reference to CSM emeritus director Adrian Orozco. A bench, also with a small dedication plaque, is located by the tree, fronting the South Garden. The garden areas and bench areas are used for passive recreation and were occasionally used for outdoor education by certain classes at the College.

Within the Project Change Site boundaries, lighting is limited to interior lights at Building 20 and four (4) overhead lights along the perimeter pathway that leads to the stairwells and pathway up to existing Buildings 12, 19, and 36. There are also two (2) overhead lights between Buildings 19 and 36 and two (2) along Perimeter Road, near the Project Change Site boundary. Interior lighting from adjacent buildings also contributes to nighttime lighting at the Project Change Site. The site is well-

Photo 1. Northwest boundary of Project Change Site and North Garden (looking northeast).

Photo 2. Building 20 and North Garden (looking southeast).

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Figure 3.1-1
Representative Photos of the Project Change Site,
Page 1 of 7

Photo 3. Building 20 and North Garden (looking north).

Photo 4. Greenhouse and northeast boundary (roadway) of Project Change Site (looking south).

Figure 3.1-1
Representative Photos of the Project Change Site,
Page 2 of 7

Photo 5. Lath House and Greenhouse with dawn redwood and Building 19 in background (looking southwest).

Photo 6. Greenhouse and Lath House (looking northeast).

Figure 3.1-1
Representative Photos of the Project Change Site,
Page 3 of 7

Photo 7. South Garden with Lath House and Building 12 in background (looking east).

Photo 8. South Garden and Greenhouse with Buildings 20 and 36 in background (looking northwest).

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Figure 3.1-1
Representative Photos of the Project Change Site,
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Photo 9. Greenhouse and South Garden with Building 12 in background (looking southeast).

Photo 10. Walkway west of Building 20 with South Garden, dawn redwood, and Building 12 in background (looking southeast).

Figure 3.1-1
Representative Photos of the Project Change Site,
Page 5 of 7

Photo 11. Dawn redwood in South Garden with Building 19 in background (looking south).

Photo 12. Dawn redwood in South Garden with Building 12 in background (looking southeast).

Figure 3.1-1
Representative Photos of the Project Change Site,
Page 6 of 7

Photo 13. Representative photo of horticultural diversity in North Garden (looking northeast).

Photo 14. Representative photo of horticultural diversity in South Garden with Greenhouse, Lath House, and Building 12 in background (looking northeast).

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Figure 3.1-1
Representative Photos of the Project Change Site,
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shaded but the light colored building and greenhouses that are painted white, but are weathered, contribute to low levels of glare. In comparison to the surrounding buildings and landscaped grounds associated with existing Buildings 12, 19, and 36 and the remainder of much of the campus, Building 20 and its surrounding grounds give the impression that this portion of the campus is not well utilized compared to other campus areas.

From the campus, the buildings and landscaping at the Project Change Site can be seen from Perimeter Road on approach to Building 20 from either direction; from the pathways associated with existing Buildings 12, 19, and 36; and from the upper story windows of existing Buildings 12, 19, and 36 that face the Project Change Site. The Science Building amphitheater is located northwest of the Project Change Site and is an outdoor space that is designed to seat many viewers. Amphitheater seating orients amphitheater viewers with their backs facing the Project Change Site; however, there are no views of the Project Change Site from the amphitheater. There are no on-campus scenic vista views that are associated with the Project Change Site. From off-campus, Building 20 and the ancillary structures and landscaping can be seen within scenic views of the San Francisco Bay and its surroundings, available from residences located at the southern end of Tobin Clark Drive, approximately 0.1 mile northeast of the Project Change Site, and roadway users and recreationists using that portion of the roadway. Views from this vantage include the northern face of Building 20, tops of the greenhouses, and the taller trees surrounding Building 20. Portions of existing Buildings 10, 12, 19, and 36 and the trees surrounding them can also be seen from this vantage and are more prominent in the view because they are taller than Building 20. Scenic vista views exist further north from Tobin Clark Drive; however, these views are to the north, northeast, and northwest and do not include the campus.

Viewers of the Project Change Site include a very limited amount of residential viewers, roadway viewers, students, employees, and viewers who visit the college. The viewer sensitivity for residents is high because they have long-term views of the Project Change Site and enjoy available scenic views of the San Francisco Bay and its surroundings. The sensitivity of viewers at the college varies because of differing levels of experience of the site and opinions about site aesthetics. Some campus viewers may perceive the deteriorating structures and buildings and overgrown gardens and landscaping as blighted. Other viewers may perceive the site positively because they enjoy the mature vegetation, gardens, walkways and relative quiet at the Project Change Site.

3.1.3 Impacts and Mitigation

This section describes the change in Project impacts on aesthetics that would occur with the Project Change. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant. Unless otherwise noted, the analysis assumes that applicable mitigation measures from the 2015 Certified EIR would be implemented for the Project Change; these measures are listed below under each respective impact heading. If new mitigation measures are needed to reduce new impacts that would result from the Project Change, those measures are also listed below.

This SEIR analysis evaluates the change in Project impacts with the Project Change, and, if applicable, changes in circumstances or new information that was not available at the time the 2015 Certified EIR was prepared. The analysis does not reevaluate the impacts of the Project that were already disclosed in the 2015 Certified EIR and are not altered due to the Project Change. Based on the change in the Project impact due to the Project Change, a determination is made as to whether

there would be changes to the impact significance determinations for the Project in the 2015 Certified EIR.

3.1.3.1 Significance Criteria

The State CEQA Guidelines Appendix G (14 California Code of Regulations 15000 et seq.) identifies significance criteria that may be considered in determining whether a project could have significant impacts on aesthetics.

An impact would be considered significant if construction or operation of the Project would do any of the following.

- Substantially degrade the existing visual character or quality of the site and its surroundings, including views from scenic vistas.
- Substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

Professional Standards

Professional standards result from professional and direct expertise gained by staff working on visual analyses and consulting with other experienced staff, subconsultants, and clients on visual effects, including knowledge gained from public input on a broad range of projects. The effects listed below represent collective knowledge that is professionally agreed upon, as well as common public concerns. According to professional standards, a project may be considered to have significant impacts if it would *substantially* have any of the following consequences.

- Conflict with applicable local guidelines or goals related to visual quality.
- Alter the existing natural viewsheds, including changes in terrain.
- Alter the existing visual quality of the region or eliminate visual resources.
- Increase light and glare in the study area.
- Result in backscatter light into the nighttime sky.
- Result in a reduction of sunlight or introduction of shadows in community areas.
- Obstruct or permanently reduce visually important features.
- Result in long-term (i.e., persisting for 2 years or more) adverse visual changes or contrasts to the existing landscape as viewed from public areas with high visual sensitivity.

3.1.3.2 Methods

Using the concepts and terminology described in Section 3.1.1 of the 2015 Certified EIR, and criteria for determining significance described below, analysis of the visual effects of the Project Change are based on the following information.

- Direct field observation from vantage points, including neighboring buildings, property, and roadways (December 19, 2017).

- Photographic documentation of key views of and from the campuses.
- Evaluation of regional visual context.
- Review of Project construction drawings.
- Review of the Project in regard to compliance with applicable state and local ordinances and regulations and professional standards pertaining to visual quality.
- Review of photo simulations to assess visual impacts.

Photo Simulations

Computer-generated visual simulations were produced using digital photographs and computer modeling and rendering techniques to document and evaluate the visual changes that would result from implementation of the Project Change. Simulation viewpoints were selected to provide representative public views from which specific Project Change elements would be most visible. Three vantage points were selected for simulating project features. A map of the simulation locations is shown in **Figure 3.1-2**, and the simulations themselves are shown in **Figures 3.1-3** through **3.1-5**. The before and after photo simulations provide conceptual images of the location, scale, and visual appearance of the Project Change.

3.1.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.1.3.1, *Significance Criteria*.

Impact CSM-AES-1: Result in temporary visual impacts caused by construction activities (less than significant with previously adopted mitigation)

As described in Chapter 2, *Project Description*, construction would take approximately six months to complete. Construction of the Project Change would create changes in views of and from the campus during demolition and construction activities. Construction traffic would access the site via local roads connecting to the campus and would be visible in the foreground. Staging areas and associated facilities would similarly be visible. Construction activities would introduce heavy equipment and associated vehicles, including backhoes, compactors, tractors, and trucks into the viewsheds of all viewer groups. However, due to the redevelopment of portions of the campus and in the vicinity with roadway improvements and development projects over the last several years, viewers are now accustomed to seeing heavy machinery associated with construction on the campus. Construction activities could result in slow moving dust clouds that would attract attention from visual receptors and reduce the availability of short-range views. **Mitigation Measure CSM-AQE-5**, adopted with the 2015 Certified EIR, would continue to be applicable to construction in the Project Change Area, and includes measures to reduce and control dust.

Many construction activities would be obscured by terrain, trees, and existing development. However, construction would still be visible from some vantage points, and viewers would see the visual transition of the Project Change Site over time. Construction would take place Monday through Friday, between 7:00 a.m. and 7:00 p.m., and some construction may occur on weekends between 9:00 a.m. and 5:00 p.m. However, because daylight hours vary by season, construction activities could result in a substantial amount of nighttime lighting to operate in the dark if construction occurs past daylight hours in the late fall and winter.

Mitigation Measure CSM-AES-1, adopted with the 2015 Certified EIR, would restrict construction to daylight hours within 0.25 mile of sensitive residential viewers, ensuring that high-intensity lighting for nighttime construction would not be needed. The nearest residential viewers to the Project Change Site are the residences located at the southern end of Tobin Clark Drive, approximately 0.1 mile to the northeast. Thus, **Mitigation Measure CSM-AES-1** would be applicable to the Project Change.

The area is well-developed, viewers are accustomed to seeing construction in the area, many views of construction would be screened, and visible construction activities would not last longer than six months. For all of these reasons, and with implementation of **Mitigation Measure CSM-AES-1** and **Mitigation Measure CSM-AQE-5**, which would reduce the potential for negative visual impacts that could result from construction, this impact would be less than significant, and no additional mitigation is needed.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-AES-1: Limit exterior construction activities to daylight hours at the College of San Mateo within 0.25 mile of residences

The effect of nighttime construction light and glare on nearby residences will be minimized by limiting construction hours within 0.25 mile of residences. Construction activities, which are scheduled to take place between 6:00 am and 7:00 pm on weekdays, will be limited to daylight hours (which will vary according to season). Therefore, the construction hours will be adjusted during the seasons to ensure construction activities take place during daylight hours.

Mitigation Measure CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 dust at the College of San Mateo

The District will require all construction contractors to implement the basic construction mitigation measures recommended by BAAQMD to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures. Additional measures may be identified by BAAQMD or the contractor as appropriate.

- All exposed surfaces affected by construction (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day, or as needed during the dry season(s) (unless limited by state or local drought response requirements or if there is a rain event).
- All haul trucks transporting soil, sand, or other loose material off site will be covered.
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads will be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.

A publicly visible sign will be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action

ICF Graphics...00602.17 (6-5-2018)

Figure 3.1-2
Locations of Visual Simulations

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Figure 3.1-3
Existing and Simulated Views from Viewpoint 1

ICF Graphics ... 00602.17 (5-8-2018) tm

Figure 3.1-4
Existing and Simulated Views from Viewpoint 2

ICF Graphics ... 006021.7 (5-8-2018) tm

Figure 3.1-5
Existing and Simulated Views from Viewpoint 3

within 48 hours. BAAQMD's phone number will also be visible to ensure compliance with applicable regulations.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project visual impacts associated with construction.

Conclusions for Impact CSM-AES-1

The 2015 Certified EIR determined that the Project would have a less than significant aesthetic impact with mitigation during construction. Based on the analysis above, with incorporation of the Project Change, the Project would continue to have a less than significant aesthetic impact with implementation of previously adopted mitigation during construction. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-AES-1**.

Impact CSM-AES-2: Substantially degrade the existing visual character or quality of the site and its surroundings, including views from scenic vistas (less than significant with mitigation)

As described above, there are no scenic vistas that would be affected by the Project Change.

The Project Change would replace existing buildings, parking lots, gardens, other vegetation, and walkways at the Project Change Site with a larger parking lot and new landscaping. Removing the structures on the Project Change Site would remove features that have been vacant and in disrepair for several years. As seen in the simulated views for Viewpoint 1 (Figure 3.1-3) and Viewpoint 2 (Figure 3.1-4), removal of these structures, along with trees and shrubs on the Project Change Site, would open up views to the existing and planned buildings adjacent to the Project Change Site (i.e., the existing Building 36 and the planned Building 19). The views presented in Figures 3.1-3 and 3.1-4 are generally representative of views on approach to the Project Change Site from Perimeter Road. However, as seen in Figure 3.1-3, landscaping would be planted around the perimeter of the proposed parking lot. The proposed landscaping would mature within a few years and buffer on-campus views from outside the Project Change Site boundaries, consistent with what is seen in the simulated view for Viewpoint 3 (Figure 3.1-5). The landscape buffer would ensure that views of the proposed parking lot from Perimeter Road and the Science Building amphitheater are largely screened from view.

Views of the Project Change Site are generally buffered from off-campus vantages and from much of the campus due to surrounding trees and landscaping. These features limit off-campus views of the Project Change Site to the few residences along the southern segment of Tobin Clark Drive and on-campus views to locations immediately adjacent to the Project Change Site. As identified in the 2015 Certified EIR, a grove of eucalyptus trees could be removed on the slopes below Perimeter Road, near the Project Change Site, as part of the previously reviewed and approved Project. Removal of these trees could make views of the Project Change Site slightly more apparent from locations along Tobin Clark Drive, but existing native oaks would remain and the area would be mulched and infilled with native trees and shrubs. As a result, off-campus views of the campus from public areas adjacent to the campus might be changed somewhat in that the number of the structures in the view would be reduced, mature vegetation at the Project Change Site would no longer be visible, and the buildings surrounding the Project Change Site might become somewhat more visible. However, the buildings surrounding the Project Change Site are already visible from this portion of Tobin Clark

Drive and the proposed landscaping would replace views of vegetation at the Project Change Site. The visual character and quality of views would be largely maintained from off-campus vantages and merely being able to see an additional portion of the campus from any specific vantage point off the District's property is not considered a substantial degradation to the existing visual character of the campus or its surrounding visual environment. Once the Project Change is completed, the existing visual character and quality of the CSM site overall as a community college would remain similar to existing conditions, although views within the Project Change Site will change substantially.

The Project Change would be most visible from within the Project Change Site boundaries and from upper story windows of the existing and planned buildings surrounding the Project Change Site. The Project Change would substantially alter views of all portions of the Project Change Site. The Project Change would remove deteriorating structures and walkways, introduce landscaping that would be maintained and consistent with the District's planting design standards, and introduce a parking lot that would be visually consistent with other parking lots on campus. The Project Change would remove mature trees and shrubs, many of which are botanical specimens associated with the established gardens that provide seasonal visual interest, and replace them with a paved parking lot. Even though perimeter landscaping would be included as part of the Project Change, vegetation on the interior of the Project Change Site and along the perimeter slopes would be permanently removed. The gardens, interior courtyard of Building 20, ceanothus and manzanita collections, and other botanical specimens would be removed, along with the benches, walkways, and commemorative plaques.

The Project Change will permanently change the existing visual character of the Project Change Site. The aesthetic value of the existing gardens, landscaping, and walkways lies in both their visual character as well as the uses facilitated by the gardens, vegetation, and walkways. As noted above, some of the botanical collections and specimens are unique and not readily observable in other locations on campus. The small commemorative plaques are also unique features. In addition, the gardens, vegetation, and walkways have been used for passive recreation and outdoor education. The parking lot will not provide for preservation of the unique botanical specimens or commemorative plaques and will not accommodate current site uses.

Regarding the unique botanical specimens and the commemorative plaques placed within existing gardens and vegetation, they contain aesthetic value on their own, and their removal without replacement or relocation would result in a significant aesthetic impact for site users interested in botany or the unique appearance of such specimens, or the subject of the commemorations. A new mitigation measure, **Mitigation Measure CSM-AES-2**, is included in this SEIR to address unique botanical specimen removal. As described below, **Mitigation Measure CSM-AES-2** would require the District to relocate and replace some of the botanical specimens where feasible to ensure that these plants could be enjoyed at other locations. **Mitigation Measure CSM-AES-3** is included in this SEIR to require relocation of the commemorative plaques to other areas required as part of **Mitigation Measure CSM-AES-2**. These measures would reduce aesthetic impacts relative to unique botanical specimens and commemorative plaques to a less than significant level.

Regarding existing site uses facilitated by the visual aesthetics of the Project Change Site (e.g., passive recreation, relaxation, walking, gathering, and outdoor education), these uses can be accommodated in other locations accessible to current site users (i.e., students, employees, and visitors). Other outdoor places on campus with opportunities for gathering and sitting include the steps west of the Health and Wellness Building (Building 5), the two foundation courtyards between

Theater Arts Buildings 2, 3, 4 and the Library (Building 9), the triangular landscaped area to the south of the South Hall Building (Building 14) and west of the Public Safety and Medical Services Building (Building 1), the twin benched courtyards to the west of the Student Life Building (Building 17), the twin benched courtyards to the west of Faculty Offices (Building 15), and the grassy benches to the north of the Science Building (Building 36). Several of these areas provide long-range views of areas surrounding the campus including the Santa Cruz Mountains. All of these areas include adjacent landscaping and walkways. Some of these areas are in busy areas of the campus and would not provide opportunities for quiet enjoyment during the most active periods of the day, but would be quieter during less active periods (e.g., early morning and early evening). A few of these areas (e.g., the landscaped area of the south of the South Hall Building and the grassy benches north of the Science Building) provide opportunities for relatively quieter use, although they are not as isolated as the Building 20 gardens.

In addition to on-campus locations that provide passive recreation opportunities and aesthetic enjoyment for students, employees, and visitors, there are extensive off-site park and open space areas in the area, including Crystal Springs Watershed and local and regional park areas in the Santa Cruz Mountains. These areas provide numerous trails that provide opportunities for passive recreation and aesthetic enjoyment in areas of mature native vegetation and sweeping vistas. These areas also provide opportunities for outdoor education within a short drive from the campus.

While not all of the alternative outdoor locations for gathering, sitting, and aesthetic enjoyment are as quiet or as isolated as the Building 20 gardens, there are alternative locations with landscaping, mature vegetation, and scenic views on campus, as well as in relatively nearby off-campus locations, that can be utilized by students, visitors, and employees to engage in the activities currently facilitated by the Building 20 gardens and vegetation. Regarding outdoor education, proposed **Mitigation Measure CMS-AES-2** requires relocation of unique botanical specimens which will provide for continued educational (and aesthetic) viewing of such specimens on campus in addition to the off-campus opportunities noted above.

The removal of the Building 20 gardens and vegetation and replacement with a parking lot and landscaping will not result in the elimination of aesthetic enjoyment opportunities in nearby areas for student, employee, and visitor appreciation. Thus, the removal of the Building 20 gardens and removal or relocation of existing vegetation will not result in a substantial adverse change in the CSM campus' visual character, nor the elimination of the uses facilitated by the current gardens and vegetation. With implementation of the proposed mitigation measures below, the aesthetic impacts of the Project Change would be reduced to a less than significant level.

The reader is also directed to Chapter 5, Alternatives, which discusses a potential alternative with a smaller parking footprint and a preserved/recreated garden area. Also, as discussed in Chapter 5, no feasible off-site location for the parking lot has been identified that would meet the project's goals and objectives.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-AES-2**.

New Mitigation Measures

Mitigation Measure CSM-AES-2: Relocate unique botanical specimens on the Building 20 Complex at CSM

Botanical specimens described in this measure are defined as trees, shrubs, and herbaceous plants that have been intentionally planted in the past to be a part of the specimen garden at the Project Change Site and which are uncommon on the rest of the campus. CSM will relocate unique botanical specimens if the size and species type is conducive to relocation and survivability, which shall be determined by consulting with a qualified horticultural specialist, such as an experienced botanist and/or landscape architect.

The Project Change landscape plan will be revised to accommodate the relocation of unique botanical specimens to the degree possible. However, the proposed landscape plan should remain visually cohesive. Transplantable botanical specimens that would not blend well with the landscape plan will be relocated elsewhere to other locations on the campus. The new locations shall be selected for their suitability in ensuring the health and vigor of relocated plants. Relocation efforts will preserve existing botanical specimens at the campus to the highest degree possible.

However, some trees and shrubs will not be conducive to relocation due to their size or species type. Unique tree and shrub botanical specimens that cannot be relocated, such as the dawn redwood, will be replaced by CSM at a 1:1 ratio, at a minimum.

Container sizes for replacement specimens will be determined in coordination with the qualified horticultural specialist. Existing irrigation systems may need to be modified or new irrigation may need to be installed to ensure the survival of the relocated and replacement trees and shrubs. Relocated and replacement plants that do not survive within the first five (5) years after relocation will be replaced at a 1:1 ratio by CSM, permitted that the species in question is reasonably available. In the event that a species is not reasonably available, another comparable botanical specimen will be replanted in its place.

Mitigation Measure CSM-AES-3: Relocate existing commemorative plaques

The “Adrian’s Tree” plaque from the dawn redwood will be relocated by CSM and placed on a marker or monument for the replacement dawn redwood tree required by Mitigation Measure CSM-AES-2. A new bench will be located near this replacement tree and the plaque on the existing bench will be relocated to the new bench. Similarly, the Eleanore D. Nettle Garden stone and plaque will be relocated to an area that will be replanted with specimens from that garden or comparable replacements.

Conclusions for Impact CSM-AES-2

The Certified EIR determined that the Project would have a less than significant impact on visual quality and character. Based on the analysis above, with incorporation of the Project Change, the Project would have a significant impact on visual quality and character before mitigation. Thus, the Project Change would result in a change to the 2015 Certified EIR’s impact determination for **Impact CSM-AES-2**. With implementation of **Mitigation Measure CSM-AES-2** and **Mitigation Measure CSM-AES-3** proposed in this SEIR, impacts on visual quality and character would be reduced to a less than significant level.

Impact CSM-AES-3: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway (no impact)

As described in the 2015 Certified EIR, there are no designated state scenic highways within the vicinity of the Project Change Site. Locally, Crystal Springs Road, Alameda de las Pulgas, SR 92, and

Polhemus Road are San Mateo County- and City of San Mateo-designated scenic roadways near the Project area; however, as described in Section 3.1.2, no views of the Project Change Site are available from any of these roadways. Therefore, there would be no impact.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-AES-3**.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce a Project impact on scenic resources.

Conclusions for Impact CSM-AES-3

The Certified EIR determined that the Project would have no impact on visual resources visible from scenic roadways. Based on the analysis above, with incorporation of the Project Change, the Project would have no impact on visual resources visible from scenic roadways. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-AES-3**.

Impact CSM-AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (less than significant with mitigation)

Existing sources of light and glare on and near the Project Change Site that can be seen from nearby residences and local roadways, where views permit, include lighting from the campus buildings, lit pathways, and lit parking lots; light from vehicles travelling on Perimeter Road; and street lights along Perimeter Road. The Project Change would result in the removal of structures and mature trees and shrubs that shade the Project Change Site. The removal of structures and mature trees and shrubs and the replacement of these features with a flat surface parking lot would slightly increase the amount of glare seen when viewing the Project Change Site due to the presence of vehicle windows that reflect light, but this would not be very notable from off-campus vantages. The proposed landscaping would mature within a few years and replace sources of shade to ensure that changes to glare are negligible.

Lighting outside the boundaries of the Project Change Site would not be affected and would remain in place. Removal of Building 20 would remove all sources of interior lighting at the Project Change Site. The Project Change would replace the four (4) overhead pathway lights along the perimeter pathway and increase the amount of overhead LED lights that are spaced across the parking lot for security within the Project Change Site boundaries. The lighting would be downcast and would be designed and installed in such a way as to minimize the amount of light spill onto adjacent areas. Tree and shrub removal would remove vegetation that helps to screen existing and proposed sources of light. The proposed landscaping would mature in a few years to help to partially shield light sources. District design and construction standards address most issues by shielding lights. Applying these standards mitigate the potential for substantial source of nighttime light and glare that could otherwise adversely affect nighttime views in the area. However, impacts associated with parking lot LED lighting could still affect sensitive residential receptors if not properly designed. Improperly designed and constructed lighting, LED or otherwise, can negatively affect humans by increasing nuisance light and glare. Increased ambient light glow is the result when proper design and construction measures are not applied and blue-rich white light lamps (BRWL) are used (International Dark-Sky Association 2010a, 2010b, 2015). BRWL lights use LEDs with a color

temperature higher than 3,000 Kelvin. District design and construction standards currently allow for LED lights with a color temperature between 2,700 and 5,000 Kelvin. In addition, District design standards specify 30-foot-high parking lot lighting at CSM. Implementation of **Mitigation Measure CSM-AES-4** adopted with the 2015 Certified EIR would ensure that any light fixtures installed as part of the Project Change would be compliant with "dark sky" standards and installed at the lowest allowable height, would avoid the use of BRWL LED lights, and would be directed downward, with the minimal intensity necessary to achieve the safety and security standards desired by the District for a particular area, so that light sources would not result in notable changes compared to existing levels. With implementation of **Mitigation Measure CSM-AES-4**, impacts would be less than significant.

Certified EIR Mitigation Measures

Mitigation Measure CSM-AES-4: Apply minimum lighting standards at the College of San Mateo

All artificial outdoor lighting will be limited to safety and security requirements, designed using Illuminating Engineering Society's design guidelines and in compliance with International Dark-Sky Association approved fixtures. All lighting is designed to have minimum impact on the surrounding environment and will use downcast, cut-off type fixtures that direct the light only towards objects requiring illumination. Shielding will be utilized, where needed, to ensure light pollution is minimized. Therefore, lights will be installed at the lowest allowable height and cast low-angle illumination while minimizing incidental light spill onto adjacent properties, open spaces, or backscatter into the nighttime sky. The lowest allowable illuminance level will be used for all lighted areas and the amount of nighttime lights needed to light an area will be minimized to the highest degree possible. Light fixtures will have non-glare finishes that will not cause reflective daytime glare. Lighting will be designed for energy efficiency and have daylight sensors or be timed with an on/off program. Lights will provide good color rendering with natural light qualities with the minimum intensity feasible for security, safety, and personnel access. Lighting, including light color rendering and fixture types, will be designed to be aesthetically pleasing.

LED lighting will avoid the use of blue-rich white light lamps and use a correlated color temperature that is no higher than 3,000 Kelvin (International Dark-Sky Association 2010a, 2010b, 2015). Wherever possible and pragmatic, the District will use fixtures and lighting control systems that conform to International Dark-Sky Associations Fixture Seal of Approval program. In addition, LED lights will use shielding to ensure nuisance glare and that light spill does not affect sensitive residential viewers.

Lights along pathways and safety lighting at building entrances and loading areas will employ shielding to minimize offsite light spill and glare and be screened and directed away from residences and adjacent uses to the highest degree possible. The amount of nighttime lights used along pathways will be minimized to the highest degree possible to ensure that spaces are not unnecessarily over-lit, while still maintaining minimum adequate lighting to provide necessary visibility for security. For example, the amount of light can be reduced by limiting the amount of ornamental light posts to higher use areas and by using hooded wall mounts or bollard lighting on travel way portions of pathways.

In particular, pool lighting will employ spill and glare control features to minimize off-site light pollution. Luminaires will be chosen for the ability to provide horizontal and vertical

beam control for better control in directing what is illuminated. In addition, shielding, such as a visor, will be used to further direct light and reduce light spill and ambient light glow. Luminaires will also incorporate photometric reflector systems that are designed to reduce light pollution.

Technologies to reduce light pollution evolve over time and design measures that are currently available may help but may not be the most effective means of controlling light pollution once the Project is designed. Therefore, all design measures used to reduce light pollution will employ the technologies available at the time of Project design to allow for the highest potential reduction in light pollution.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts relating to new sources of light and glare.

Conclusions for Impact CSM-AES-4

The Certified EIR determined that the Project would have a less than significant impact with mitigation with regard to light and glare. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with regard to light and glare with implementation of the 2015 Certified EIR mitigation measures. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-AES-4**.

3.2 Air Quality

This section discloses and analyzes the potential change in Project impacts on air quality that would result from implementing the Project Change.

3.2.1 Regulatory Setting

The regulatory setting for air quality is described on pages 3.2-1 to 3.2-8 of the 2015 Certified EIR. These regulations include the federal Clean Air Act and California Clean Air Act, including the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAA), and the Bay Area Air Quality Management District's (BAAQMD) Clean Air Plan. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location of where the 2015 Certified EIR is available for public review.

There have been no substantial new regulations related to air quality beyond those described in the 2015 Certified EIR. However, there have been updates to existing regulations and guidelines since the 2015 Certified EIR was prepared that are relevant to the Project Change. Updates to the regulatory setting are discussed in the sections that follow.

National Ambient Air Quality Standards

Since the 2015 Certified EIR was prepared, the National Ambient Air Quality Standard (NAAQS) for Ozone has been revised from 0.075 parts per million (ppm) to 0.070 ppm. The most current NAAQS and California Ambient Air Quality Standards (CAAQS) are shown in **Table 3.2-1**.

Table 3.2-1. Current National and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards[a]	
			Primary	Secondary
Ozone	1-hour	0.09 ppm	None	None
	8–hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM10)	24-hour	50 μg/m^3	150 μg/m^3	150 μg/m^3
	Annual mean	20 μg/m^3	None	None
Fine Particulate Matter (PM2.5)	24-hour	None	35 μg/m^3	35 μg/m^3
	Annual mean	12 μg/m^3	12.0 μg/m^3	15.0 μg/m^3
Carbon Monoxide	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 μg/m^3	None	None
	Calendar quarter	None	1.5 μg/m^3	1.5 μg/m^3
	3-month average	None	0.15 μg/m^3	0.15 μg/m^3
Sulfates	24-hour	25 μg/m^3	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Sources: California Air Resources Board 2016.
Notes:
μg/m^3 = micrograms per cubic meter
ppm = parts per million
[a] National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

Bay Area Air Quality Management District/2017 Clean Air Plan

In May 2017, the Bay Area Air Quality Management District (BAAQMD) updated their California Environmental Quality Act (CEQA) guidelines (Bay Area Air Quality Management District 2017a). While the Certified EIR used the BAAQMD's 2011 CEQA guidelines to determine significance, this SEIR will use the 2017 CEQA guidelines. There have been no substantial changes to any significance thresholds between the 2011 and 2017 guidelines, however, the air district is now formally recommending the significance thresholds contained in the 2017 guidelines. The significance thresholds from the 2011 CEQA guidelines were not formally recommended by the BAAQMD when the Certified EIR was prepared, because of the pending case in the California Supreme Court, as discussed in the Certified EIR. The significance thresholds from the 2011 CEQA guidelines were nonetheless used in the Certified EIR, because the thresholds were based on substantial evidence as documented in Appendix D of the 2011 guidelines. With the conclusion of the case in BAAQMD's favor, the significance thresholds contained in the CEQA guidelines adopted in 2017 are formally recommended by BAAQMD.

The Certified EIR discussed the integrated control strategy for ozone, PM, TACs, and GHG emissions that comprises the BAAQMD's 2010 Clean Air Plan. On April 19, 2017, the BAAQMD Board of Directors adopted an update to the 2010 Plan, the *2017 Clean Air Plan* (Bay Area Air Quality Management District 2017b). Both the *2010* and *2017 Clean Air Plans* focus on protecting public health, protecting the climate, and contain control measures aimed at reducing air pollution in the region. Additionally, many of the control measures included in the *2010 Clean Air Plan* have been carried forward into the *2017 Clean Air Plan*.

3.2.2 Environmental Setting

The environmental setting for air quality at CSM is described on pages 3.2-9–3.2-16 of the 2015 Certified EIR. This discussion describes the regional climate conditions, pollutants of greatest concern, air quality conditions, attainment status of San Mateo County and proximity of sensitive receptors. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIR is available for public review.

The setting with regard to air quality at CSM has not changed substantially since the Certified Plan was prepared. However, some setting details require refining for applicability to the Project Change Site. The sensitive receptors within 1,000 feet of the Project are listed in **Table 3.2-5** of the certified EIR. Unlike the Project, the Project Change Site is a single site in one area of the CSM Campus; thus, the sensitive receptors in **Table 3.2-5** are not all within 1,000 feet of the Project Change Site. All but one group of sensitive receptors, residences to the northeast of the CSM Campus, and a child development center, are beyond 1,000 feet from the Project Change Site, as shown in **Table 3.2-2** below.

Table 3.2-2. Sensitive Receptors within 1,000 feet of the Project Change Site

Sensitive Receptor	Distance
Residences off campus	600 feet northeast of Building 20
Mary Meta Lazarus Child Development Center	700 feet northeast of Building 20

Air quality conditions were reported in the certified EIR for the 2012-2014 period in **Table 3.2-2**. Since the certified EIR was prepared, air quality monitoring data have become available for two additional years, 2015 and 2016, and data for these years are shown in **Table 3.2-3** to supplement the air quality monitoring data in the Certified EIR. No substantial changes in the climate conditions, pollutants of concern, or attainment status of San Mateo County have occurred since the Certified Plan was prepared.

Table 3.2-3. Ambient Air Quality Monitoring Data from Redwood City Monitoring Station[a] for 2015 and 2016

Pollutant Standards	2015	2016
Ozone (O_3)		
Maximum 1-hour concentration (ppm)	0.086	0.075
Maximum 8-hour concentration (ppm)	0.071	0.061
Number of days standard exceeded[b]		
CAAQS 1-hour (>0.09 ppm)	0	0
CAAQS 8-hour (>0.070 ppm)	1	0
NAAQS 8-hour 2008 Standard (>0.075 ppm)	0	0
NAAQS 8-hour 2015 Standard (>0.070 ppm)	1	0
Carbon Monoxide (CO)		
Maximum 8-hour concentration (ppm)	1.6	1.1
Maximum 1-hour concentration (ppm)	3.4	2.2
Number of days standard exceeded:[b]		
NAAQS 8-hour (≥9 ppm)	0	0
CAAQS 8-hour (≥9.0 ppm)	0	0
NAAQS 1-hour (≥35 ppm)	0	0
CAAQS 1-hour (≥20 ppm)	0	0
Nitrogen Dioxide (NO_2)		
State maximum 1-hour concentration (ppb)	47	45
State second-highest 1-hour concentration (ppb)	46	44
Annual average concentration (ppb)	10	9
Number of days standard exceeded:		
CAAQS 1-hour (180 ppb)	0	0
Particulate Matter (PM10)[c]		
National[d] maximum 24-hour concentration (µg/m³)	58.8	40.0
National[d] second-highest 24-hour concentration (µg/m³)	47.2	35.2
State[e] maximum 24-hour concentration (µg/m³)	58.0	41.0
State[e] second-highest 24-hour concentration (µg/m³)	49.3	37.5
National annual average concentration (µg/m³)	21.3	17.5
State annual average concentration (µg/m³)[f]	21.9	18.3
Number of days standard exceeded:[b]		
NAAQS 24-hour (>150 µg/m³)[g]	0	0
CAAQS 24-hour (>50 µg/m³)[g]	1	0
Particulate Matter (PM2.5)		
National[d] maximum 24-hour concentration (µg/m³)	34.6	19.5
National[d] second-highest 24-hour concentration (µg/m³)	26.0	18.4
State[e] maximum 24-hour concentration (µg/m³)	34.6	19.5
State[e] second-highest 24-hour concentration (µg/m³)	26.0	18.4
National annual average concentration (µg/m³)	6.0	8.4
State annual average concentration (µg/m³)[f]	6.0	*

Pollutant Standards	2015	2016
Number of days standard exceeded:[b]		
NAAQS 24-hour (>35 μg/m³)	0	0

Source: California Air Resources Board 2017; U.S. Environmental Protection Agency 2017.
Notes:
ppm = parts per million
NAAQS = National Ambient Air Quality Standards
CAAQS = California Ambient Air Quality Standards
μg/m³ = micrograms per cubic meter
mg/m³ = milligrams per cubic meter
- = data not available

[a] Data for Particulate Matter (PM10) was unavailable from the Redwood City Monitoring Station so data is taken from the San Jose – Jackson Street Monitoring Station.
[b] An exceedance is not necessarily a violation.
[c] National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.
[d] State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California approved samplers.
[e] Measurements usually are collected every 6 days.
[f] State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
Mathematical estimate of how many days' concentrations would have been measured as higher than the level of the standard had each day been monitored. Values have been rounded.

3.2.3 Impacts and Mitigation

This section describes the change in Project impacts on air quality that would occur with the Project Change. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant. Unless otherwise noted, the analysis assumes that applicable mitigation measures from the 2015 Certified EIR would be implemented for the Project Change; these measures are listed below under each respective impact heading. If new mitigation measures are needed to reduce new impacts that would result from the Project Change, those measures are also listed below.

This SEIR analysis evaluates the change in Project impacts with the Project Change, and, if applicable, changes in circumstances or new information that was not available at the time the 2015 Certified EIR was prepared. The analysis does not reevaluate the impacts of the Project that were already disclosed in the 2015 Certified EIR and are not altered due to the Project Change. Based on the change in the Project impact due to the Project Change, a determination is made as to whether there would be changes to the impact significance determinations for the Project in the 2015 Certified EIR.

3.2.3.1 Significance Criteria

The State CEQA Guidelines Appendix G (14 California Code of Regulations 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on air quality.

An impact would be considered significant if construction or operation of the Project would do any of the following.

- Conflict with or obstruct implementation of the applicable air quality plan.

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

According to the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make significance determinations for potential impacts on environmental resources. As discussed above, BAAQMD is responsible for ensuring that the NAAQS and CAAQS are not violated within the SFBAAB. Analysis requirements for construction- and operational-related pollutant emissions are contained in the BAAQMD's CEQA Guidelines (Bay Area Air Quality Management District 2017a). BAAQMD's CEQA Guidelines also contain thresholds of significance for ozone, CO, PM2.5, PM10, TACs, and odors; these thresholds are presented in **Table 3.2-4**.

Table 3.2-4. BAAQMD Project-Level Criteria Pollutant Emissions Thresholds

Pollutant	Construction	Operations
ROG	54 lbs/day	54 lbs/day or 10 tons/year
NO_X	54 lbs/day	54 lbs/day or 10 tons/year
CO	–	Violation of CAAQS
PM10 (total)	–	-
PM10 (exhaust)	82 lbs/day	82 lbs/day or 15 tons/year
PM2.5 (exhaust)	54 lbs/day	54 lbs/day or 10 tons/year
PM10 /PM2.5 (fugitive dust)	Best management practices (BMPs)	-
TACs (Project-level)	Increased cancer risk of 10 in 1 million; increased non-cancer risk of greater than 1.0 (hazard index [HI]); PM2.5 increase of greater than 0.3 micrograms per cubic meter	Same as construction
TACs (cumulative)	Increased cancer risk of 100 in 1 million; increased non-cancer risk of greater than 10.0; PM2.5 increase of greater than 0.8 microgram per cubic meter at receptors within 1,000 feet	Same as construction
Odors	–	Five complaints per year averaged over three years

Source: Bay Area Air Quality Management District 2017a.

ROG	=	reactive organic gases
NO_x	=	nitrogen oxides
CO	=	carbon monoxide
PM10	=	particulate matter less than or equal to 10 microns
PM2.5	=	particulate matter less than or equal to 2.5 microns
TACs	=	toxic air contaminants

Criteria Air Pollutants

The significance thresholds, as shown in **Table 3.2-4**, for criteria pollutants (ROG, NO_X, PM10, and PM2.5) are based on the stationary source emission limits of the federal CAA and the BAAQMD Regulation 2, Rule 2. The federal New Source Review (NSR) program, created by the federal CAA, set the emissions limits to ensure that stationary sources of air pollution are constructed in a manner that is consistent with attainment of NAAQS. Similarly, to ensure that new stationary sources do not cause or contribute to a violation of an NAAQS, BAAQMD Regulation 2 Rule 2 requires any new source that emits criteria air pollutants above specified emissions limits to offset those emissions. Although the emission limits are adopted in the regulation to control stationary source emissions, when addressing public health impacts of regional criteria pollutants, the amount of emissions is the key determining factor, regardless of source. Thus, the emission limits are appropriate for the evaluation of land use development and construction activities as well as stationary sources. Those projects that result in emissions below the thresholds would not be considered to be projects that would contribute to an existing or projected air quality violation or result in a considerable net increase in criteria pollutant emissions. The federal NSR emission limits and BAAQMD's offset limits are identified in the regulation on an annual basis (in tons per year). For construction activities, the limits are converted to average daily emissions (in pounds per day), as shown in **Table 3.2-4**, because of the short-term intermittent nature of construction activities and, if emissions would not exceed the average daily emission limits, the Project would also not exceed the annual levels.

Toxic Air Contaminants

Similar to the criteria pollutant thresholds, the health risk impact thresholds are developed based on the cancer and non-cancer risk limits for new and modified sources adopted in the BAAQMD Regulation 2, Rule 5, and the EPA Significant Impact Level (SIL) for PM2.5 emissions. The EPA SIL is a measure of whether a source may cause or contribute to a violation of NAAQS. Health risks due to toxic emissions from construction, though temporary, can still result in substantial public health impacts due to increases cancer and non-cancer risks. Applying quantitative thresholds allows a rigorous standardized method of determining when a construction project will cause a significant increase in cancer and non-cancer risks. The cumulative health risk thresholds are based on EPA guidance for conducting air toxics analyses and making risk management decisions at the facility and community-scale level and are also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on the BAAQMD's recent regional modeling analysis and the non-cancer Air Toxics Hot Spots mandatory risk reduction levels.

Odors

The threshold for odor is consistency with the BAAQMD Regulation 7 for Odorous Substances and reflects the most stringent standards derived from the air district's rule.

3.2.3.2 Methods

Impacts of the Project on air quality and criteria pollutants emissions from construction and operations were quantified using the same general methodology as was used for the analysis in the Certified EIR. The industry-standard land use emissions model (CalEEMod) was used for the Certified EIR analysis (CalEEMod version 2013.2.2) and is used in this supplemental analysis (CalEEMod version 2016.3.2). This section describes the key methods used to quantify emissions

and estimate potential impacts for the Project Change. Assumptions used in the air quality analysis can be found in **Appendix B,** *Air Quality and Greenhouse Gas Data and Calculations.*

Construction

Construction of the Project Change would generate emissions of criteria pollutants, including ROG, NO_X, SO_X, CO, PM10, and PM2.5 that would result in short-term impacts on ambient air quality in the study area. Emissions would originate from mobile and stationary construction equipment exhaust, employee, and haul truck vehicle exhaust; off-gassing from paved surfaces; and fugitive dust from earth-moving activities and demolition. Emissions generated by these sources were estimated using the current version of CalEEMod emissions inventory model, and construction information provided by the Project applicant. Construction equipment data, including equipment type and number of equipment pieces, were provided by the Project applicant. Construction details that could not be provided by the Project applicant, such as equipment horsepower and load factors, were generated by default values within CalEEMod.

Construction of the Project Change is expected to consist of a demolition phase (to remove Building 20 and the lath house and greenhouse), a concrete recycling and hauling phase (to process and remove demolition materials from the Project Change Site), a tree removal phase, and several phases to construct the parking lot (grading, utility installation, concrete installation, paving, and landscaping). Construction is expected to occur between fall 2018 and mid 2019 (refer to **Appendix B** for more detail on the construction phases for the Project Change).

Exposure to construction-related DPM was assessed by predicting the health risks in terms of excess cancer, non-cancer hazard impacts, and elevated PM2.5 concentrations.[1] EPA's AERMOD dispersion model (version 16216r) was used to predict annual DPM and PM2.5 concentrations at sensitive land uses based on overall PM2.5 exhaust emissions, with exhaust emissions of PM2.5 used as surrogate for DPM based on BAAQMD guidance. Project-level cancer risk, non-cancer (hazard index [HI]) and annual PM2.5 concentrations were estimated based on annual concentrations from AERMOD, anticipated construction durations, and accepted OEHHA (Office of Environmental Health Hazard Assessment 2015) and BAAQMD (Bay Area Air Quality Management District 2011) default values. The risk calculations incorporate OEHHA's recent guidance update, which includes age-specific factors to take into account the increased sensitivity to carcinogens during early-in-life exposure. In AERMOD, the area where off-road equipment would operate was treated as an elevated polygon area source equal to the size of the Project Change construction area, while truck traffic was treated as an elevated line-area source, equal to the size of the East Perimeter Road. Annual emissions are distributed uniformly during the scheduled activity period, which assumed that construction only occurs during weekdays starting at 8 am and lasting 8 hours. No emissions are assigned to weekends or nighttime hours. Emissions were modeled with all five years of meteorology as obtained from the ARB for the San Francisco International Airport (California Air Resources Board 2015).

Operation

CalEEMod quantifies operational criteria pollutant emissions for area sources (such as off-gassing from paint applications and consumer products, and exhaust emissions from landscaping

[1] The Project Change itself is not expected to represent a significant operational source of DPM, and the analysis of health risks associated with the project focuses on construction activities.

equipment) and energy sources (such as natural gas consumption) based on the size and type of a project's land use. Emissions from off-gassing and landscaping equipment at the parking lot were thus estimated using the size of the proposed parking lot at the Project Change Site and the default assumptions within CalEEMod.

3.2.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.2.3.1, *Significance Criteria*.

Impact CSM-AQE-1: Conflict with or obstruct implementation of an applicable air quality plan (less than significant)

The most recent air quality plan applicable to the Project area is the *2017 Clean Air Plan*, which provides an integrated strategy to control ozone, PM, TACs, and GHG emissions. The primary goals of the *2017 Clean Air Plan* are to attain air quality standards, reduce population exposure and protect public health in the Bay Area, and reduce GHG emissions and protect the climate.

The Certified EIR discussed that a project is considered to be inconsistent with air quality plans if the project would result in population and/or employment growth that exceeds the estimates used to develop the those plans. The Project Change would involve the construction of a parking lot but would not add any additional campus buildings, so there would not be any land uses constructed that could affect student enrollment or staff employment numbers. The services offered by CSM that could affect any student enrollment or staff employment decisions (i.e., number and sizes of classes) would remain unchanged. Consequently, there would be no potential for the Project Change to affect either population or employment in the region, and the Project Change would not conflict with or obstruct implementation of any applicable air quality plans.

Additionally, the Project Change would not cause the Project to conflict with any policies or strategies in either *2010 Clean Air Plan* or the *2017 Clean Air Plan*, because, after construction is completed, operation of the Project Change will only involve lighting energy and the occasional use of landscaping equipment.

The Certified EIR concluded that the Project is consistent with the City of San Mateo General Plan because it would include sustainable practices and renewable energy systems. The addition of the Project Change would not change that conclusion because the District would apply the same general practices and systems to the Project Change site, as applicable.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-AQE-1.**

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-AQE-1

The 2015 Certified EIR determined that the Project would have a less than significant impact with regard to conflicts with air quality plans. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with regard to conflicts with air

quality plans. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-AQE-1**.

Impact CSM-AQE-2: Violate a BAAQMD air quality standard or substantially contribute to an existing or projected air quality violation during Project construction (less than significant with mitigation)

Construction of the Project Change would involve heavy-duty construction equipment, construction worker vehicle trips, truck hauling trips, and off-gassing from paved surfaces that have the potential to create air quality impacts. Fugitive dust emissions would also occur as the existing structures are demolished and surfaces are excavated and graded, and excavated fill from the adjacent Building 19 construction site is added to the Project Change Site to raise the elevation. Grading and construction activities on the Building 19 site, including removal of the slopes along the southern boundary of the Project Change Site, were previously evaluated in the 2015 Certified EIR and are not part of the Project Change that is the subject of this SEIR. However, the placement of fill from the Building 19 site on to the Project Change Site was not considered in the 2015 Certified EIR analysis and is part of the Project Change. Construction of the Project Change would occur for approximately six months across two calendar years. Maximum daily construction-related criteria pollutant emissions have been quantified for each year in which emissions would occur for the Project Change construction and are shown in **Table 3.2-5**.

Table 3.2-5. Maximum Daily Project Change Construction Criteria Pollutant Emissions (pounds per day)

	Unmitigated									
Year	**ROG**	**NO_X**	**CO**	**SO_X**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**
2018	4.6	44.2	29.1	0.1	0.8	2.3	3.1	0.2	2.2	2.3
2019	5.1	47.2	31.9	0.1	13.7	1.8	14.7	3.1	1.7	4.0
Daily Maximum	**5.1**	**47.2**	**31.9**	**0.1**	**13.7**	**2.3**	**14.7**	**3.1**	**2.2**	**4.0**
BAAQMD Threshold	*54*	*54*	*--*	*--*	*BMPs*	*82*	*--*	*BMPs*	*54*	*--*
BAAQMD Threshold Exceeded?	*No*	*No*				*No*		*No*	*No*	

As shown in **Table 3.2-5**, the Project Change alone would not result in any exceedances of the BAAQMD thresholds. More construction activity would occur in 2019 than in 2018, which results in generally higher maximum daily emissions for each pollutant in 2019.

The effect of the Modified Project (i.e., the Project with the Project Change), however, would result in emissions that would exceed the BAAQMD thresholds for NOx, as shown in **Table 3.2-6**. Emissions of the Modified Project would exceed the thresholds, because construction activity associated with the Project Change would overlap with Project construction activity, resulting in a combined level of emissions that has a higher potential to result in impacts to air quality.

Table 3.2-6. Maximum Daily Modified Project Construction Criteria Pollutant Emissions (pounds per day)

	Unmitigated									
Year	**ROG**	**NO_X**	**CO**	**SO_X**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**
2018	10.3	92.3	64.7	0.1	1.2	5.2	6.4	0.3	4.9	5.2
2019	10.8	95.3	68.4	0.1	14.0	4.7	17.9	3.2	4.4	6.8
Daily Maximum for All Years	**10.8**	**95.3**	**68.4**	**0.1**	**14.0**	**5.2**	**17.9**	**3.2**	**4.9**	**6.8**
BAAQMD Threshold	*54*	*54*	*--*	*--*	*BMPs*	*82*	*--*	*BMPs*	*54*	*--*
BAAQMD Threshold Exceeded?	*No*	*Yes*				*No*			*No*	

While the Modified Project emissions in **Table 3.2-6** would exceed the BAAQMD's NOx thresholds in two years, the occurrence of an exceedance is not a new impact. As shown in **Table 3.2-16** of the Certified EIR, the Project would result in an exceedance of the BAAQMD's NOx threshold for the same years. The addition of the Project Change would increase the magnitude of the exceedances in 2018 and 2019 by approximately 26% and 16%, respectively.

A number of mitigation measures were identified in the Certified EIR to reduce emissions to a level that would be below the applicable BAAQMD thresholds. Because the Modified Project would result in an exceedance of the NOx threshold, mitigation would be necessary for the Project Change as well. With implementation of **Mitigation Measure CSM-AQE-3** from the Certified EIR, the Modified Project emissions would be reduced through the use of Tier 4 engines in diesel powered equipment. **Table 3.2-7** shows the mitigated emissions of the Modified Project.

Table 3.2-7. Maximum Daily Modified Project Construction Criteria Pollutant Emissions – Mitigated (pounds per day)

	Mitigated									
Year	**ROG**	**NO_X**	**CO**	**SO_X**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**
2018	4.7	39.5	65.5	0.1	1.2	0.3	1.4	0.3	0.3	0.5
2019	5.1	44.2	68.5	0.1	14.0	0.4	14.9	3.2	0.4	3.7
Daily Maximum	**5.1**	**44.2**	**68.5**	**0.1**	**14.0**	**0.4**	**14.9**	**3.2**	**0.4**	**3.7**
BAAQMD Threshold	*54*	*54*	--	--	*BMPs*	*82*	--	*BMPs*	*54*	--
BAAQMD Threshold Exceeded?	*No*	*No*				*No*			*No*	

ROG = reactive organic gases; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM10 = particulate matter; PM2.5 = fine particulate matter

The mitigated emissions of the Modified Project, as shown above, would be below all applicable pollutant thresholds. The Modified Project would have higher levels of emissions than the Project, because of the addition of emissions from the Project Change, but, with mitigation, those emissions would not exceed the BAAQMD thresholds. As such, the Modified Project would result in the same level of impact as the Project, because no thresholds would be exceeded, and, hence, no air quality standards would be violated.

As indicated below, Certified EIR **Mitigation Measure CSM-AQE-4** has been modified for the Project Change to reflect current fees levied under the Carl Moyer Program.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-AQE-1: Implement BAAQMD basic construction mitigation measures to reduce construction-related NO_X emissions at the College of San Mateo

The District will ensure the construction contractor implements the following BAAQMD-recommended basic control measures to reduce NO_X emissions from construction equipment:

- Idling times will be minimized by shutting off equipment when it is not in use or by 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 will be provided for construction workers at all access points.
- All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Mitigation Measure CSM-AQE-2: Implement BAAQMD additional construction mitigation measures to reduce construction-related NO_X emissions at the College of San Mateo

The District will ensure the construction contractor implements the following BAAQMD-recommended additional control measures to reduce NO_X emissions from construction equipment.

- Minimize the idling time of diesel powered construction equipment to 2 minutes.
- The project will 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% NO_X reduction and 45% PM exhaust reduction compared to the most recent ARB 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.
- Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
- Require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NO_X and PM.
- Require all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines.

Mitigation Measure CSM-AQE-3: Utilize clean diesel-powered equipment during construction to control construction-related DPM emissions at the College of San Mateo

The District will ensure that all off-road diesel-powered equipment used during construction is equipped with EPA Tier 4 or cleaner engines, except for specialized construction equipment for which an EPA Tier 4 engine is not available. The use of Tier 4 engines will also act to reduce ROG and NO_X emissions from construction equipment.

Mitigation Measure CSM-AQE-4: Offset NO_X emissions generated during construction to quantities below applicable BAAQMD CEQA thresholds at the College of San Mateo

The District will enter into a development mitigation contract with BAAQMD in order to reduce criteria pollutant emissions generated during construction of the Project to quantities below the numeric BAAQMD thresholds (**Table 3.2-4**). The preferred source of emissions reductions for NO_X, will be through contributions to BAAQMD's Carl Moyer Program and/or other BAAQMD incentive programs.

Implementation of this mitigation would require the District adopt the following specific responsibilities.

- Enter into a mitigation contract with BAAQMD for the Carl Moyer Program and/or other BAAQMD emission reduction incentive program. The necessary reductions must be achieved (contracted and delivered) by the applicable year in question (i.e., emissions generated in year 2016 would need to be reduced offsite in 2016). Funding would need to be received prior to contracting with participants and should allow sufficient time to receive and process applications to ensure offsite reduction projects are funded and implemented

prior to commencement of Project activities being reduced. In negotiating the terms of the mitigation contract, the Project applicant and BAAQMD should seek clarification and agreement on BAAQMD responsibilities, including the following.

- Identification of appropriate offsite mitigation fees required for the Project.
- Timing required for obtaining necessary offsite emission credits.
- Processing of mitigation fees paid by the Project applicant.
- Verification of emissions inventories submitted by the Project applicant.
- Verification that offsite fees are applied to appropriate mitigation programs within the SFBAA.

- Quantify mitigation fees required to satisfy the appropriate reductions. Funding for the emission reduction projects will be provided in an amount up to the emission reduction project cost-effectiveness limit set by for the Carl Moyer Program during the year that the emissions from construction are emitted. (The current Carl Moyer cost-effectiveness limit is $30,000 ~~18,030~~/weighted ton of criteria pollutants [NOX + ROG + (20*PM)]). An administrative fee of 5% would be paid by the Project applicant to the BAAQMD to implement the program. The funding would be used to fund projects eligible for funding under the Carl Moyer Program guidelines or other BAAQMD emission reduction incentive program meeting the same cost-effectiveness threshold that are real, surplus, quantifiable, and enforceable.
- Develop a compliance program to calculate emissions and collect fees from the construction contractors for payment to BAAQMD. The program will require, as a standard or specification of their construction contracts with the Project Sponsor, that construction contractors identify construction emissions and their share of required offsite fees, if applicable. Based on the emissions estimates, the Project applicant will collect fees from the individual construction contractors (as applicable) for payment to BAAQMD. Construction contractors will have the discretion to reduce their construction emissions to the lowest possible level through additional onsite mitigation, as the greater the emissions reductions that can be achieved by onsite mitigation, the lower the required offsite fee. Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, additional electrification or alternative fuels, engine-retrofit technology, and/or after-treatment products. All control strategies must be verified by BAAQMD.
- Conduct daily and annual equipment activity monitoring to ensure onsite emissions reductions are achieved and no additional mitigation payments are required. Excess offsite funds can be carried from previous to subsequent years in the event that additional reductions are achieved by onsite mitigation. At the end of the Project, if it is determined that excess offset funds remain (outstanding contracts and administration over the final years of the contracts will be taken into consideration), BAAQMD and the Project applicant will determine the disposition of final funds (e.g., additional emission reduction projects to offset underperforming contracts, return of funds to the Project applicant, etc.).

Mitigation Measure CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 Dust at the College of San Mateo

The District will require all construction contractors to implement the basic construction mitigation measures recommended by BAAQMD to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures. Additional measures may be identified by BAAQMD or the contractor as appropriate.

- All exposed surfaces affected by construction (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day, or as needed during the dry season(s) (unless limited by state or local drought response requirements or if there is a rain event).
- All haul trucks transporting soil, sand, or other loose material off site will be covered.
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads will be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.

A publicly visible sign will be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. BAAQMD‘s phone number will also be visible to ensure compliance with applicable regulations.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-AQE-1

The 2015 Certified EIR determined that Project construction would have a less than significant impact on air quality with mitigation. Based on the analysis above, with incorporation of the Project Change, Project construction would have a less than significant impact on air quality with implementation of the 2015 Certified EIR mitigation measures. Thus, the Project Change would not result in a change to the 2015 Certified EIR’s impact determination for **Impact CSM-AQE-2**.

Impact CSM-AQE-3: Violate a BAAQMD air quality standard or substantially contribute to an existing or projected air quality violation during Project operation (less than significant)

The Project Change would not result in a substantial increase in sources of operational emissions. A review of the parking demand conditions at the Project Change site by the Project traffic engineers has concluded that the existing parking supply at the CSM Campus is considered to be sufficient, and the addition of a larger parking lot from implementation of the Project Change would not result in increased vehicle trips (Hexagon 2018). Refer to Appendix D of this SEIR. Thus, the Project Change would not increase operational mobile source emissions. Emissions from other sources during

operations, such as area or energy sources, would be limited, because the Project Change would not add any land uses except a parking lot and landscaped perimeter areas. The extent to which consumer products (i.e., area sources) and natural gas combustion (i.e., energy sources) would be present at the Project Change site would be limited. Landscaping equipment would be occasionally present to maintain the landscaped areas of the parking lot. Additionally, off-gassing emissions of ROG would occur from periodic re-application of parking lot painted markings. Total operational emissions were nonetheless quantified in CalEEMod but were shown to be negligible; that is, total operational emissions from the Project Change would be an order of magnitude below the operational emissions quantified for the Project. Given the number of significant digits to which the Project emissions were reported in the Certified EIR, adding the much smaller Project Change emissions would not change the numerical values of the operational emissions in the Certified EIR for the CSM campus. Consequently, the Project Change would not result in any appreciable operational emissions beyond those present in the Certified EIR.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-AQE-3.**

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-AQE-3

The 2015 Certified EIR determined that the Project would have a less than significant impact with regard to violating air quality standards. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with regard to violating air quality standards. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-AQE-3**.

Impact CSM-AQE-4: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment (less than significant with mitigation)

As discussed in the Certified EIR, the BAAQMD has identified project-level thresholds to evaluate criteria pollutant impacts, and, through the development of these thresholds, BAAQMD considered what level of emissions would be cumulatively considerable. As noted in its 2017 CEQA Guidelines:

> In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary (Bay Area Air Quality Management District 2017a).

The criteria pollutant thresholds presented in **Table 3.2-4** therefore represent the maximum emissions the Project Change may generate before contributing to a cumulative impact on regional air quality. Consequently, exceedances of the project-level thresholds would be cumulatively considerable. As discussed in **Impact CSM-AQE-2**, construction emissions associated with the Project Change are expected to not exceed BAAQMD's quantitative thresholds after implementation of mitigation. As discussed in **Impact CSM-AQE-3**, operational emissions would be negligible.

Therefore, with implementation of **Mitigation Measures CSM-AQE-1** through **CSM-AQE-4**, this impact would be less than significant.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-AQE-1: Implement BAAQMD basic construction mitigation measures to reduce construction-related NO_X emissions at the College of San Mateo. See above.

Mitigation Measure CSM-AQE-2: Implement BAAQMD additional construction mitigation measures to reduce construction-related NO_X emissions at the College of San Mateo. See above.

Mitigation Measure CSM-AQE-3: Utilize clean diesel-powered equipment during construction to control construction-related DPM emissions at the College of San Mateo. See above.

Mitigation Measure CSM-AQE-4: Offset NO_X emissions generated during construction to quantities below applicable BAAQMD CEQA thresholds at the College of San Mateo. See above.

Mitigation Measure CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 dust at the College of San Mateo. See above.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-AQE-4

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on cumulative air quality. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on cumulative air quality with implementation of the 2015 Certified EIR mitigation measures. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-AQE-4**.

Impact CSM-AQE-5: Expose existing sensitive receptors to substantial pollutant concentrations during construction (significant and unavoidable with mitigation)

Construction-Related Health Risks from DPM and PM2.5 Emissions

Project Change construction would generate PM2.5 and DPM, resulting in the exposure of nearby existing residences to increased PM2.5 concentrations and health risks associated with DPM. Exposure dissipates as a function of distance from the emissions source; thus, BAAQMD has determined that construction activities occurring at distances of greater than 1,000 feet from a sensitive receptor likely do not pose a significant health risk.

As shown in **Table 3.2-2**, there are sensitive receptors located within 1,000 feet of the campus, which are limited to offsite residences. **Table 3.2-8** summarizes Project Change-related DPM, PM2.5, and acute and chronic non-cancer risks (hazard index [HI]) associated with Project Change

construction activities for each type of receptor. Estimated health risks in **Table 3.2-8** assume implementation of tier 4 engines in all diesel equipment, as specified in **Mitigation Measure CC-AQE-3**.

As shown in **Table 3.2-8**, construction of the Project Change would not result in a cancer risk, hazard index, or PM2.5 concentration in excess of BAAQMD's thresholds. Risk and concentration values would be below the BAAQMD thresholds by more than one order of magnitude.

Table 3.2-8. Project-Level Cancer, Non-Cancer (HI) and PM2.5 Concentrations during Project Change Construction

Receptor	Increased Cancer Risk (per million)	Non-Cancer (HI)	Annual PM2.5 Concentration (µg/m3)
Onsite Residences	< 0.01	< 0.1	< 0.001
Child Development Center	< 0.01	< 0.1	< 0.001
Offsite Residences	0.01	< 0.1	0.001
Offsite School	< 0.01	< 0.1	0.001
Offsite Park	< 0.01	< 0.1	< 0.001
BAAQMD Threshold	10	1.0	0.3
Exceed BAAQMD Threshold?	No	No	No

$\mu g/m^3$ = microgram per cubic meter

Additionally, as shown in **Table 3.2-9,** the effect of the Modified Project would not result in a cancer risk, hazard index, or PM2.5 concentration in excess of BAAQMD's thresholds. It should be noted that the Modified Project includes the addition of the Mary Meta Lazarus Child Development Center located on Athletic Loop Road as an additional sensitive receptor. In the Certified EIR, this site was identified as an offsite residential receptor but has been updated to accurately reflect the land use at that site for this SEIR.

Table 3.2-9. Project-Level Cancer, Non-Cancer (HI) and PM2.5 Concentrations during Modified Project Construction

Receptor	Increased Cancer Risk (per million)	Non-Cancer (HI)	Annual PM2.5 Concentration (µg/m3)
Onsite Residences[1]	5.4	< 0.01	0.01
Child Development Center[2]	1.0	< 0.01	0.02
Offsite Residences[3]	8.6	< 0.01	0.02
Offsite School[1]	0.5	< 0.01	0.01
Offsite Park [1]	< 0.1	< 0.01	< 0.01
Maximum Risk	8.6	< 0.01	0.02
BAAQMD Threshold	10	1.0	0.3
Exceed BAAQMD Threshold?	No	No	No

µg/m^3 = microgram per cubic meter

[1] These are receptors that are located more than 1,000 feet away from the Project Change site and would not be measurably affected by the construction activity. These receptors have been included in this table for easier comparison with **Table 3.2-20** of the Certified EIR.

[2] New receptor not explicitly included in Certified EIR – the Mary Meta Lazarus Child Development Center.

[3] This represents the offsite residence exposed to the greatest risk value and is the same residence as the one evaluated in the Certified EIR.

There are other, non-Project Change background sources within 1,000 feet of the Project area that generate DPM and PM2.5. These emissions contribute to elevated background concentrations of DPM and PM2.5, which, when combined with emissions from Project Change construction, could result in a cumulative health risk. Accordingly, consistent with BAAQMD's CEQA Guidelines, cumulative exposure to DPM and PM2.5 was evaluated by adding background health risks to the estimated construction health risks for the Project Change.

These sources were included in the cumulative analysis of health risks in the Certified EIR in **Table 3.2-21** of the Certified EIR. Thus, to evaluate the cumulative impacts of the Project Change and the background sources, it is appropriate to include the background risks from these sources in addition to the Project Change risk.

Table 3.2-10. Cumulative Cancer, Chronic (HI), and PM2.5 Health Risks during Project Change Construction with Mitigation

Source ID/Name	Increased Cancer Risk (per million)	Non-Cancer Hazard Index	PM2.5 Exposure (µg/m^3)
Contribution from Ambient Sources			
Source # 17347	1.62	< 0.01	< 0.01
Source # 15349	3.57	0.03	**1.56** [1]
SR 92	3.00	< 0.01	0.03
Contribution from Project Construction			
Onsite Residences [2]	0.98	< 0.01	< 0.01
Child Development Center[2,3]	1.00	< 0.01	0.02
Offsite Residences [2,3]	1.58	< 0.01	< 0.01

Source ID/Name	Increased Cancer Risk (per million)	Non-Cancer Hazard Index	PM2.5 Exposure (μg/m³)
Offsite School [2,3]	0.10	< 0.01	< 0.01
Offsite Park [4]	0.00	< 0.01	< 0.01
Cumulative Total			
Onsite Residences [2]	13.5	0.03	0.24
Child Development Center[2, 3]	9.1	0.03	0.24
Offsite Residences [2,3]	16.7	0.03	0.24
Offsite School [2,3]	9.1	0.03	0.24
Offsite Park [4]	8.2	0.03	**1.59**
BAAQMD Thresholds	100	10.0	0.8
Exceed BAAQMD Threshold?	No	No	Yes

[1] The background PM2.5 concentrations associated with this source is in excess of the BAAQMD's threshold of 0.8 μ/m³. Emissions are from an existing source located on the CSM Campus. The PM2.5 concentration for this source was modeled by the BAAQMD, and the 1.56 value is likely a worst-case scenario.

[2] Includes MM CSM-AQE-3 and CSM-AQE-6

[3] It is possible that MM CSM-AQE-3 may not be feasible at all offsite receptors, because installing filtration devices may not be a realistic option at older buildings or where the building owner does not consent. Thus, PM2.5 concentration values would not be mitigated in those situations.

[4] Includes MM CSM-AQE-3.

μg/m³ = microgram per cubic meter

As shown in **Table 3.2-10**, the Modified Project combined with all nearby background sources would not result in cancer risk or hazard index, or PM2.5 concentration in excess of BAAQMD's cumulative thresholds with full implementation of **Mitigation Measures CSM-AQE-3 and CSM-AQE-6** (as revised in this SEIR) at onsite and off-site residential receptors, the off-site school, and the on-campus child-development center, but would result in PM2.5 concentrations in excess of BAAQMD's cumulative thresholds at the offsite park, where mitigation is considered infeasible. It is uncertain at this time whether **Mitigation Measure CSM-AQE-6** (i.e. filters rated MERV-15 or higher) will be feasible for the offsite receptors and the child development center because it is possible that these existing buildings may not be equipped with ventilation or recirculation systems to which filtration devices can be applied. Additionally, homeowners may not be amenable to the installation of devices in their homes, and the full implementation of a measure requiring filters in offsite receptors cannot be guaranteed. As such, it is possible that the impact at offsite receptors and at the child development center cannot be feasibly mitigated and may be unavoidable along with the impact at the off-site park. Thus, this impact would be significant and unavoidable.

Carbon Monoxide Hot Spots

As discussed for **Impact CSM-AQE-3**, the Project Change would not result in additional vehicle trips during operations, because the existing parking supply is considered to be sufficient, and an additional parking lot would not encourage new trips. As such, the BAAQMD screening criteria for evaluating CO concentrations is met and no CO hotspots are anticipated to result from the Project Change.

As indicated below, Certified EIR **Mitigation Measure CSM-AQE-6** has been modified for the Project Change to apply to the offsite residences, offsite school, and on-site child development center.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-AQE-2: Implement BAAQMD additional construction mitigation measures to reduce construction-related NO_X emissions at the College of San Mateo. See above.

Mitigation Measure CSM-AQE-3: Utilize clean diesel-powered equipment during construction to control construction-related DPM emissions at the College of San Mateo. See above.

Mitigation Measure CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 dust at the College of San Mateo. See above.

Mitigation Measure CSM-AQE-6: Install filtration systems on ventilation and recirculation systems at the College of San Mateo and at off-site receptors over BAAQMD PM 2.5 thresholds during construction

The District will install filtration systems on ventilation and recirculation systems within onsite and offsite residences, the offsite school, and the on-site childhood development center where the BAAQMD PM2.5 concentration thresholds are exceeded after application of other onsite construction air quality mitigation measures. All filters must be rated MERV-15 or higher. The District will submit a plan for installation and maintenance of all filters in accordance with the manufacturer's recommendations to the County prior to approval of the first building permits. The onsite and offsite plans will be incorporated into the Project's Operations and Maintenance Manual. If installation of filtration at the off-site school, off-site residences, and the child development center is determined to be technically infeasible (due to existing HVAC systems) or rejected by the off-site school or residences, the rationale shall be documented and approved by the CSM administration.

In the event that background community risks change due to new or removed sources, revised modeling will be required before changes to the filtration system can be incorporated into the building design. The modeling would be included in a proposal submitted to the County for review and approval prior to issuance of building permits.

New Mitigation Measures

As shown above in the revisions to Certified EIR **Mitigation Measure CSM-AQE-6**, the Project Change would result in the need for new mitigation measures relative to filtration systems at the off-site residences, school and the on-site child development center to reduce cumulative PM2.5 exposure, which is the cumulative effect of the Project Change contributions and contributions from background sources.

Conclusions for Impact CSM-AQE-5

The 2015 Certified EIR determined that the Project would have a significant and unavoidable impact with regard to exposing sensitive receptors to particulate matter pollution during construction. Based on the analysis above, with incorporation of the Project Change, the Project would continue to have a significant and unavoidable impact with regard to exposing sensitive receptors to particulate

matter pollution during construction. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-AQE-5**.

Impact CSM-AQE-6: Create objectionable odors affecting substantial number of people (less than significant)

Construction

Construction of the Project Change would result in additional heavy-duty equipment and paved surfaces that could generate temporary odors. These odors would be of a nearly identical nature to the odors generated by the Project construction but would be localized to the Building 20 area. Because the odors would be temporary and localized to the immediate area around Building 20, the Project Change would not create objectionable odors that would affect a substantial number of people. Impacts would be less than significant.

Operation

During operation of the Project Change, diesel exhaust from landscaping equipment and occasional trash pick-up could create unpleasant exhaust odors. Such odors would be temporary and extremely localized, however, and would only occur in the immediate vicinity of either the landscaping equipment or trash truck during the relatively short duration of the activity. As such, these activities could not expose a substantial number of people to objectionable odors. Impacts would be less than significant.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-AQE-6.**

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-AQE-6

The 2015 Certified EIR determined that the Project would have a less than significant impact with regard to odors. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with regard to odors. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-AQE-6**.

3.3 Biological Resources

This section discloses and analyzes the potential change in Project impacts on biological resources that would result from implementing the Project Change.

3.3.1 Regulatory Setting

The regulatory setting for biological resources is described on pages 3.3-1-3.3-4 and 3.8-1-3.8-3 of the 2015 Certified EIR. Federal regulations relevant to the Project Change Site include: the Endangered Species Act Sections 7 and 9 (ESA) (42 United States Code [U.S.C.] 4321 et seq.); the Migratory Bird Treaty Act and Executive Order 13186 (16 U.S.C. 702–712)(MBTA); and the Clean Water Act (CWA). Relevant state regulations include the California Endangered Species Act (CESA); California Fish and Game Code Section 1600 et seq. (Lake and Streambed Alteration), Section 3503 (Bird Nests and Birds of Prey), and Sections 3511, 4700, 5050, and 5515 (Fully Protected Species); California Native Plant Protection Act (Sections 1900–1913), and Porter-Cologne Water Quality Control Act. There are no local regulations for biological resources applicable to the Project Change Site; as stated in Section 2.6 Chapter 2, *Project Description*, of the 2015 Certified EIR, the District is exempt from the application of city and county zoning ordinances which includes the City of San Mateo Municipal Code Chapter 13.35 and Chapter 13.52 that provides protection to 'street trees' and 'heritage trees' respectively.

The ESA and CESA provide protection to plant and animal species listed as endangered or threatened; CESA also extends protection to candidate species for listing. The MBTA, Executive Order 13186, and California Fish and Game Code Section 3503 provide protection to the nests of native bird species. The CWA, California Fish and Game Code Section 1600 et seq,, and the Porter-Cologne Water Quality Control Act provide protection to wetlands, water quality and waterways. The California Native Plant Protection Act provides protection to endangered and rare native plants. The California Fish and Game Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) provide protection to species designated as fully protected. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location of where the 2015 Certified EIR is available for public review.

There are no new regulations related to biological resources beyond those described in the 2015 Certified EIR, and no changes have been made to the regulations summarized in the 2015 Certified EIR that would affect the environmental analysis of the Project Change.

3.3.2 Environmental Setting

3.3.2.1 College of San Mateo

The environmental setting for biological resources at CSM is described on page 3.3-5 and 3.3-10 and in Figure 3.3-1b of the 2015 Certified EIS. This discussion describes land cover types identified within the CSM Project area which include landscaped/disturbed, coast live oak woodland, and northern coastal scrub. No wetlands or riparian communities were observed at CSM. Landscaped/disturbed land cover type at CSM was found in and adjacent to existing buildings including 8, 12, 19, 20, 36 and the green house, and the corporation yard. Coast live oak woodland at

CSM was found north and east of Building 8, and northern coastal scrub at CSM was found northeast of Building 34 between the building and the corporation yard. Northern coastal scrub occurs in a relatively small portion of CSM, with the majority of CSM consisting of vegetation indicative of landscaped/disturbed areas. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIS is available for public review.

The setting with regard to biological resources at CSM has not changed substantially since the Certified Plan was prepared (Alldredge pers. comm.).

3.3.2.2 Project Change Site

ICF biologist Ross Wilming and ICF botanist Torrey Edell conducted a reconnaissance-level survey at the Project Change Site on December 19, 2017. See **Appendix E** for site photos taken during the survey. The biologists characterized land cover types within the Project Change Site based on the dominant character of the land surface determined by vegetation (i.e., plant species composition and distribution), water, or human use. The entire Project Change Site is developed and can be classified into three developed sub-types: structures/pavement, turf, and landscaped (**Figure 3.3-1**). These land cover types were evaluated for their potential to support special-status plant and animal species. **Table 3.3-1** identifies the wildlife species observed during the survey; no special-status species were observed. Also during the survey, trees with a diameter at breast height (dbh) (categorized as 0-6 inch, 6-12 inch, 12-24 inch, and greater than 24 inch) were documented (**Table 3.3-2**).

Table 3.3-1. Wildlife Species Observed in the Project Change Site

Common Name	*Scientific Name*
Birds	
Anna's hummingbird	*Calypte anna*
American crow	*Corvus brachyrhynchos*
American robin	*Turdus migratorius*
Black phoebe	*Sayornis nigricans*
California towhee	*Melozone crissalis*
Dark-eyed junco	*Junco hyemalis*
Red-tailed hawk	*Buteo jamaicensis*
Steller's jay	*Cyanocitta stelleri*
Turkey vulture	*Cathartes aura*
White-crowned sparrow	*Zonotrichia leucophrys*
Mammals	
Gray squirrel	*Sciurus griseus*

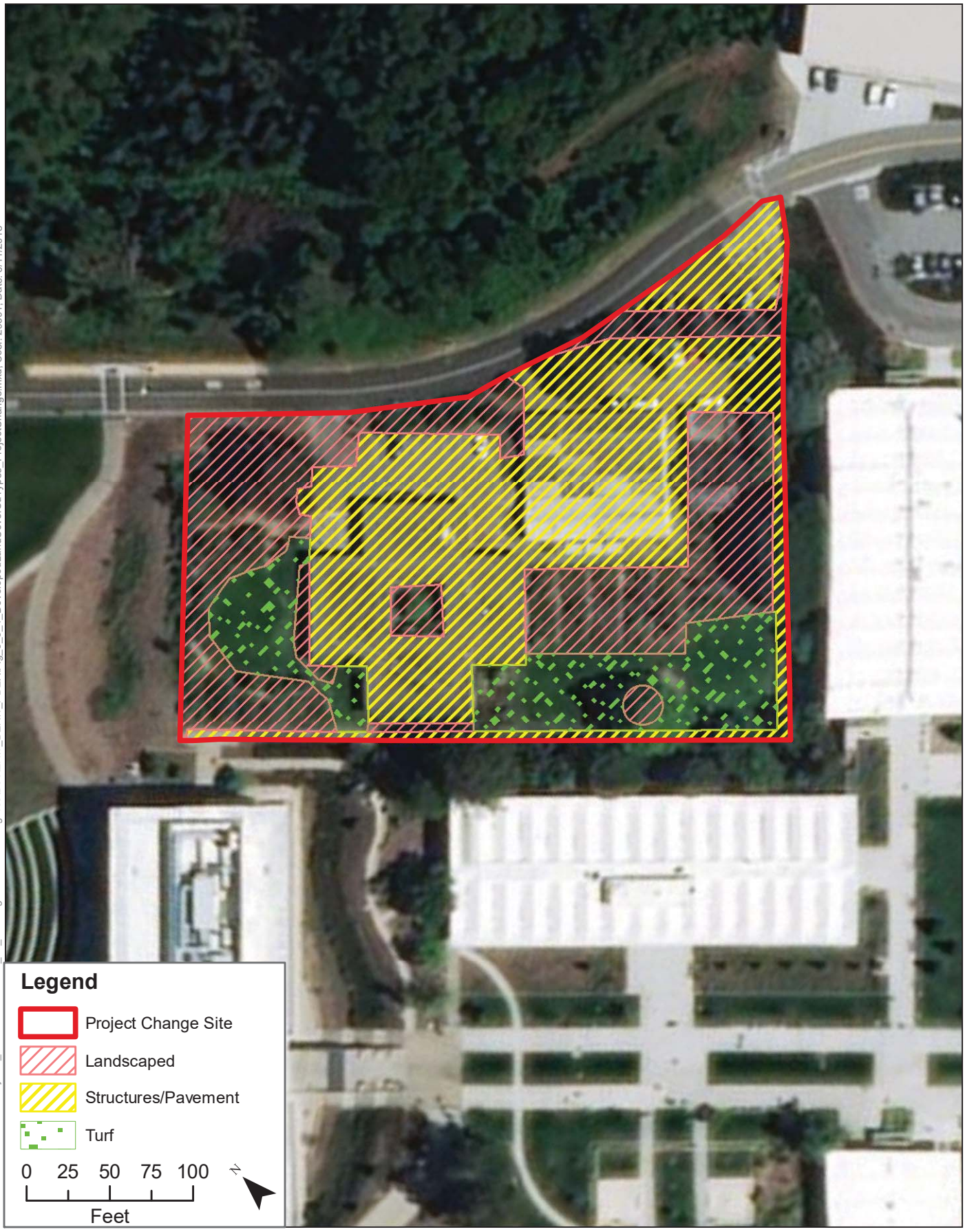


Figure 3.3-1
Developed Land Cover Sub-Types in the Project Change Site

Table 3.3-2. Trees Observed in Project Change Site

Species (Latin name/ Common Name)	DBH (inches) 0-6	6-12	12-24	>24	Species Total
Acacia melanoxylon/ Black acacia	30	3	1	0	34
Aesculus californica/ California buckeye	0	2	0	0	2
Araucaria heterophylla/ Norfolk Island pine	1	0	0	0	1
Arbutus unedo/ Strawberry tree	3	1	0	0	4
Betula sp.	1	0	0	0	1
Calocedrus decurrens/ Incense cedar	0	3	0	0	3
Casuarina cunninghamiana/ River sheoak	3	0	0	0	3
Ceanothus sp.	7	0	0	0	7
Cedrus atlantica glauca/ Blue atlas cedar	0	0	0	3	3
Cercis occidentalis/ Western redbud	1	0	0	0	1
Cryptomeria japonica 'Elegans'/ Japanese plume cedar	0	1	1	0	2
Cupressus macrocarpa/ Monterey cypress	0	0	0	1	1
Cupressus sempervirens/ Italian cypress	10	6	0	0	16
Eucalyptus camaldulensis/Red gum	0	0	0	1	1
Eucalyptus polyanthemos/ Silver dollar gum	2	6	0	3	11
Fraxinus sp.	1	0	0	0	1
Garrya elliptica/ Coast silk tassel, silk tassel bush	0	3	0	0	3
Gerjerra parviflora/ Australian willow	0	1	1	0	2
Leptospermum scoparium/ Broom teatree	1	0	0	0	1
Ligustrum lucidum/ Glossy privet	6	0	0	0	6
*Malus*sp.	0	2	3	0	5
**Musa* sp./ Banana	0	0	1	0	1
Metasequoia glyptostroboides/ Dawn redwood	0	0	0	1	1
Myoporum laetum/ Lollypop tree	1	0	0	0	1
Phoenix canariensis/ Canary Island date palm	0	0	4	0	4
Pinus pinea/ Italian stone pine	0	0	0	2	2
Pinus radiata/ Monterey pine	8	3	1	0	12
Pinus sp.	0	0	1	3	4
Pinus thunbergii/ Japanese black pine	4	0	0	0	4
Prunus cerasifera/ Cherry plum, purple leaf plum	0	0	0	1	1
Prunus sp.	7	0	0	0	7
Quercus agrifolia/ California live oak, coast live oak	59	6	5	4	74
Quercus virginiana/ Southern live oak	4	3	0	0	7
Olea europaea/ Olive	1	0	0	0	1
Pittosporum sp.	2	2	1	0	5
Pittosporum tenuifolium/ Short leaf box	0	1	1	0	2
Pseudotsuga menziesii/ Douglas fir	0	0	0	1	1
Sequoia sempervirens/ Coast redwood	4	0	2	4	10
Salix laevigata/ Red willow	2	0	0	0	2
Umbellularia californica/ Bay laurel, California bay	1	0	0	0	1

Species (Latin name/ Common Name)	DBH (inches) 0-6	6-12	12-24	>24	Species Total
Unknown sp. (alive)	6	4	0	0	10
Unknown sp. (dead)	2	0	0	0	2
Yucca sp.	3	0	0	0	3
Ziziphus ziziphus/ Chinese date, common jujube	2	0	0	0	2
Totals	**172**	**47**	**22**	**24**	**265**

* Due to limited accessibility, only genus was determined.

Land Cover Types

The entire Project Change Site is developed. No wetlands or riparian communities are present. Wildlife species occurring in developed areas with landscaping are typically generalists that have adapted to human-modified landscapes. Ornamental trees and lawns provide nesting and foraging habitat for urban-adapted birds such as American crow (*Corvus brachyrhynchos*), western scrub-jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), and house finch (*Haemorhous mexicanus*). Other common wildlife found in developed/landscaped areas include Virginia opossum (*Didelphis virginiana*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and a variety of rodents. Wildlife habitat values of each developed cover sub-type are briefly discussed below.

Structures/Pavement

Structures and pavement in the Project Change Site include Building 20, the greenhouse, the lath house, parking lots (20, and 20A/20M), and paved walkways. Mobile species such as black phoebe (*Sayornis nigricans*), house sparrow (*Passer domesticus),* house finch (*Haemorhous mexicanus*), rock pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), northern raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*) could use elements of structures/paved surfaces [(e.g., Building 20 and lath house eaves, and lath house interior (accessed from open windows)] for cover, including nesting and roosting, if it occurs adjacent to or near other land cover types used by the species.

Turf

Irrigated turf in the Project Change Site is located northwest and south of Building 20. Mobile species may move through turf or use it for cover or nesting if not maintained (i.e., mowed). Turf can also provide foraging habitat for passerine and mammal species such as American robin, white-crowned sparrow, and rabbit (*Sylvilagus* sp.), and also raptor species including red-shouldered hawk (*Buteo lineatus*) and red-tailed hawk (*Buteo jamaicensis*), provided a sufficient prey base (small mammals or birds) is present.

Landscaped

Landscaped land cover refers to areas where native vegetation has been replaced with horticultural species. This sub-type is located throughout the majority of the Project Change Site and includes the North and South Gardens, and the densely planted areas with an understory and canopy adjacent to Buildings 19 and 20. Ornamental species used as landscaping within the Project Change Site include Mexican bush sage (*Salvia leucantha*), cotoneaster (*Cotoneaster* sp.), Himalayan blackberry (*Rubus armeniacus),* and Pampas grass (*Cortaderia* sp.), and larger tree species such as black acacia (*Acacia*

melanoxylon), Italian cypress (*Cupressus sempervirens*), silver dollar gum (Eucalyptus polyanthemos), and dawn redwood (*Metasequoia glyptostroboides*). Several native species were planted for landscaping including coyote brush (*Baccharis pilularis)* and toyon (*Heteromeles arbutifolia),* and larger tree species including coast live oak (*Quercus agrifolia*), coast redwood (*Sequoia sempervirens*), Monterey pine (*Pinus radiate*), and Douglas fir (*Pseudotsuga menziesii*). Landscaped vegetation provides nesting and roosting habitat for native wildlife as well as wildlife food sources such as insects, nuts, or berries. The large trees provide suitable habitat for migratory birds, raptors, and bat species including fringed myotis (*Myotis thysanodes*), pallid bat (*Antrozous pallidus*), and hoary bat (*Lasiurus cinereus*). Wildlife species expected to use landscaped areas are the same as listed above and also include western honey bee (*Apis mellifera*), bumblebee (*Bombus* spp.), Anna's hummingbird (*Calypte anna),* American crow (*Corvus brachyrhynchos),* California towhee (*Melozone crissalis),* dark-eyed junco (*Junco hyemalis),* and Steller's jay (*Cyanocitta stelleri).*

3.3.3 Impacts and Mitigation

This section describes the change in Project impacts on biological resources that would occur with the Project Change. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant. Unless otherwise noted, the analysis assumes that applicable mitigation measures from the 2015 Certified EIS would be implemented for the Project Change; these measures are listed below under each respective impact heading. If new mitigation measures are needed to reduce new impacts that would result from the Project Change, those measures are also listed below.

This SEIR analysis evaluates the change in Project impacts with the Project Change, and, if applicable, changes in circumstances or new information that was not available at the time the 2015 Certified EIS was prepared. The analysis does not reevaluate the impacts of the Project that were already disclosed in the 2015 Certified EIR and are not altered due to the Project Change. Based on the change in the Project impact due to the Project Change, a determination is made as to whether there would be changes to the impact significance determinations for the Project in the 2015 Certified EIR.

3.3.3.1 Significance Criteria

The State CEQA Guidelines Appendix G (14 California Code of Regulations 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on biological resources.

An impact would be considered significant if construction or operation of the Project would do any of the following.

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

3.3.3.2 Methods

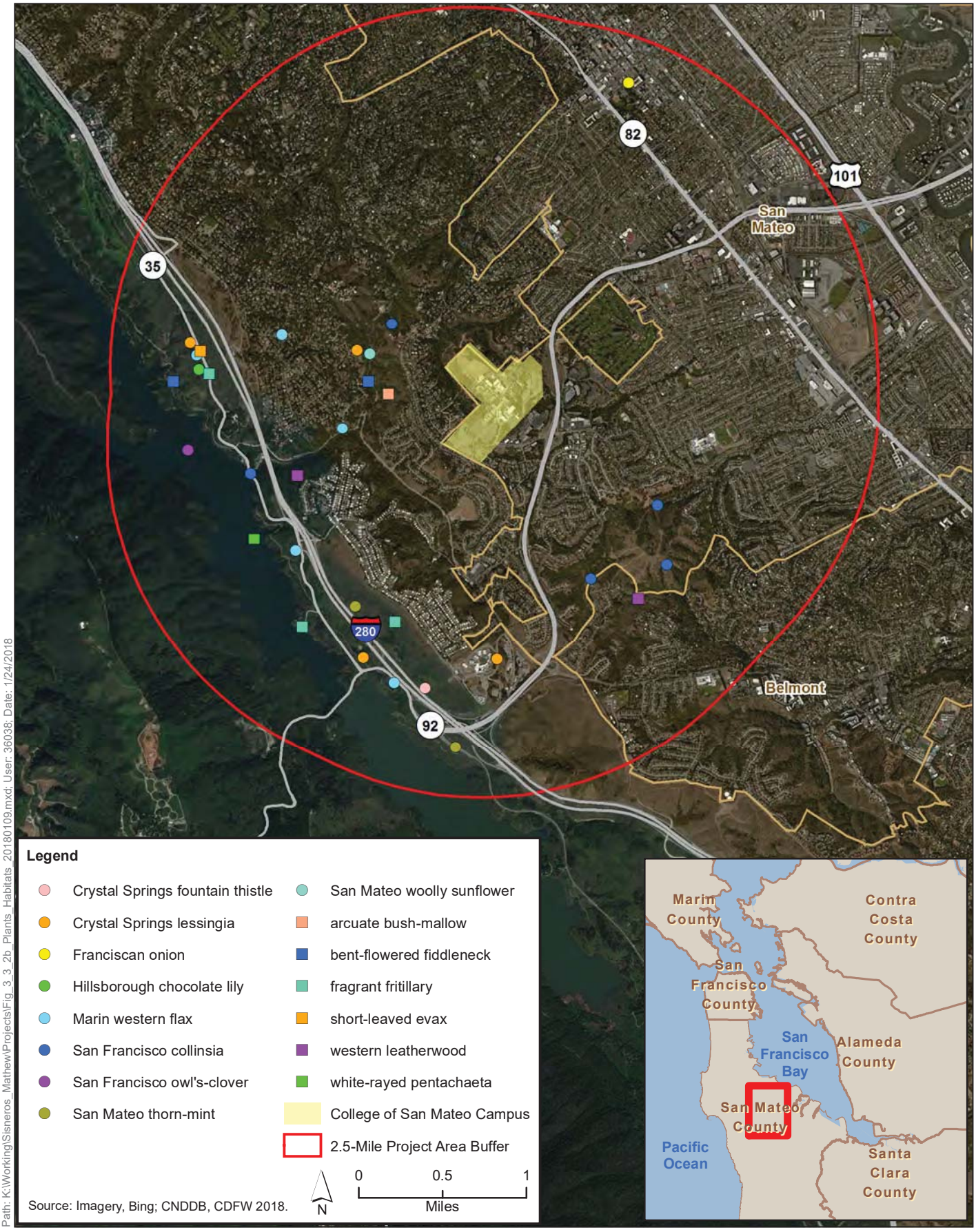
Potential adverse effects on special-status species in the Project Change Site were evaluated based on a review of the available literature regarding the status and known distribution of special-status species in the region and data collected from reconnaissance-level surveys conducted by ICF biologists at the Project Change Site on December 19, 2017. Principal sources consulted during the analysis included the following.

- USFWS IPaC search of the Project Change Site, current as of January 4, 2018 (U.S. Fish and Wildlife Service 2018) (**Appendix E,** *Biological Resources Documentation*).
- California Natural Diversity Database (CNDDB) query results for the San Mateo USGS 7.5-minute quadrangle (3712253), current as of January 4, 2018 (California Department of Fish and Wildlife 2018) (**Appendix E**).
- CNPS's Electronic Inventory query results for the San Mateo USGS 7.5-minute quadrangle (3712253), current as of January 4, 2018 (California Native Plant Society 2018) (**Appendix E**).
- 2015 Certified EIR

CNDDB special-status plant and wildlife species occurrences within 2.5 miles of the CSM campus are shown in **Figures 3.3-2 and 3.3-3**, respectively. Many of the species in the CNDDB and USFWS lists in **Appendix E** are known to occur in San Mateo County and are distributed throughout the San Francisco Bay region but were eliminated from consideration (i.e., there is no potential for them to occur in the CSM area) based on the absence of natural plant communities and/or substrates on which they depend (e.g., tidal salt marsh, freshwater streams, open waters of San Francisco Bay, chaparral, vernal pools, rocky soils, serpentinite).

To refine the list of species potentially affected by activities of the Project Change, each species was evaluated for its potential to occur within the Project Change Site and whether it would be affected by Project Change activities. The likelihood of each species occurring within or near the Project Change Site was based on the following criteria.

- **None**—Potential habitat for the species is absent from the Project Change Site, and there are no known occurrences within 2.5 miles. Species considered extirpated from the region are also included in this category.
- **Low**—Low-quality habitat for the species is present in the Project Change Site but the known distribution of the species does not include the Project Change Site and/or there are no known occurrences within 2.5 miles.



Path: K:\Working\Sisneros_Mathew\Projects\Fig_3_3_2b_Plants_Habitats_20180109.mxd; User: 36038; Date: 1/24/2018

Figure 3.3-2
CNDDB Plant and Community Occurrences near College of San Mateo

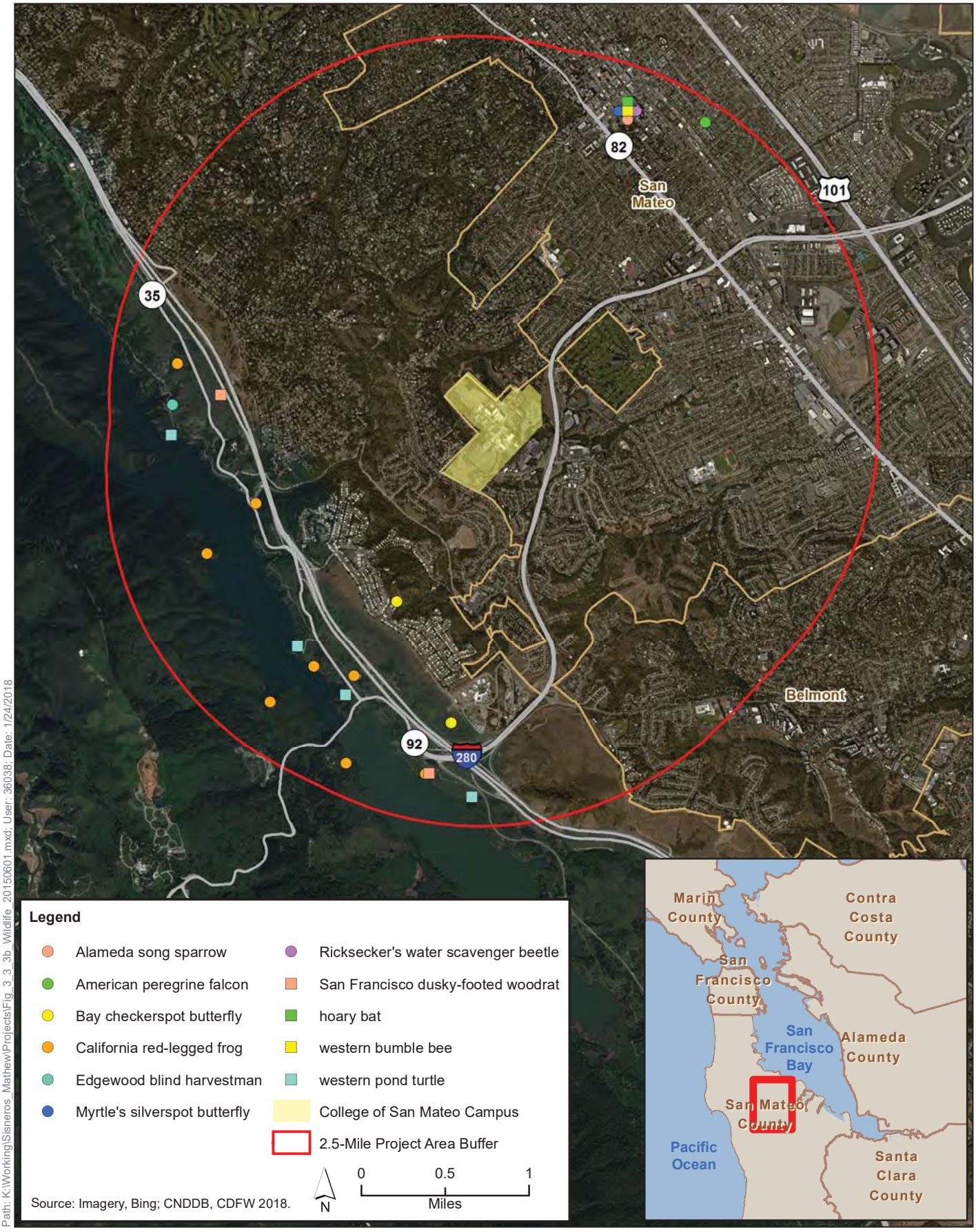


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Figure 3.3-3
CNDDB Wildlife Occurrences near College of San Mateo

- **Moderate**—Low-quality habitat for the species is present within the Project Change Site but higher quality habitat and/or known occurrences occur within 2.5 miles.
- **High**—High-quality habitat for the species is present within the Project Change Site and there are known occurrences on or within 2.5 miles of the Project Change Site.

After reviewing all data sources and observations from the reconnaissance survey, ICF developed a list of candidate, sensitive, and special-status species potentially occurring in the Project Change Site. These species are listed in **Table 3.3-3**. **Table 3.3-3** does not include species for which ICF determined there is no likelihood for occurrence in the Project Change Site.

Species with "moderate" or "high" potential to occur in the Project area and native bird species protected under the MBTA and California Fish and Game Code were considered in the impact analysis. Where impacts would be significant, mitigation measures were identified to reduce these impacts to a less-than-significant level.

As shown in **Table 3.3-3,** species with moderate or high potential to occur within the CSM area include the following.

- Plants: None
- Wildlife:
    - White-tailed kite (*Elanus leucurus*)
    - Fringed myotis (*Myotis thysanodes*)
    - Pallid bat (*Antrozous pallidus*)
    - Hoary bat (*Lasiurus cinereus*)

Although northern harrier may rarely forage over or in the Project Change Site, human presence and disturbance reduce the likelihood of foraging within or near the Project Change Site and nesting habitat is absent. Thus northern harrier would not be affected. However, project activities could potentially affect the four special-status wildlife species.

Table 3.3-3. Special-Status Wildlife Species Potentially Occurring in or near the Project Change Site

Species	Status[A] (Federal/State/Other)	Geographic Distribution	Habitat Requirements	Likelihood of Occurrence[B]
Birds				
Circus cyaneus Northern harrier	--/--/SSC	Occurs in the lowland California. Has been recorded in fall at high elevations.	Grasslands, meadows, marshes, and seasonal and agricultural wetlands.	**Low (foraging).** Foraging habitat (turf and landscaped) present, but nesting and primary foraging (grasslands, meadows, marshes and wetlands) habitat absent. Routine human presence and disturbance reduce likelihood of foraging within or near project area.
Elanus leucurus white-tailed kite	--/--/FP	Occurs in the lowlands west of Sierra Nevada from Sacramento Valley south, including coastal valleys and foothills to western San Diego County.	Dense-topped trees or shrubs for nesting, open grasslands, marshes, or agricultural fields for foraging.	**Moderate (foraging and nesting).** Foraging habitat (turf and landscaped) and nesting sites (shrubs and large trees) present. Routine human presence and disturbance reduce likelihood of foraging and nesting within or near project area.
Falco peregrines anatum peregrine falcon	--/--/FP	Permanent resident along the north and south Coast Ranges. May summer in the Cascade and Klamath Ranges and through the Sierra Nevada to Madera County. Winters in the Central Valley south through the Transverse and Peninsular Ranges and the plains east of the Cascade Range.	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large prey populations.	**Very Low.** May occasionally fly over and near project area, but nesting and foraging habitat absent.

Species	Status[A] (Federal/State/Other)	Geographic Distribution	Habitat Requirements	Likelihood of Occurrence[B]
Mammals				
Antrozous pallidus pallid bat	--/SSC/WBWG-High	Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for cavity roosts, but will use crevices in man-made structures.	**Moderate.** Pallid bats typically nest in crevices in xeric areas and trees. Cavities may be present within large trees and could provide roosting habitat. Routine human presence and disturbance reduce likelihood of roosting within or near project area.
Lasiurus cinereus hoary bat	--/--/WBWG-Medium	Widespread throughout California.	Roosts in trees, typically within forests.	**Moderate.** One occurrence within 2.5 miles of SMC. Tree foliage provides roosting habitat, but routine human presence and disturbance reduce likelihood of roosting within or near project area.
Myotis thysanodes fringed myotis	--/--/WBWG-High	Occurs throughout California except the southeastern deserts and the Central Valley.	Found in a wide variety of habitats from low desert scrub to high elevation coniferous forests. Day and night roosts in caves, mines, trees, buildings, and rock crevices.	**Moderate.** Potential roosting habitat present in trees and buildings. Routine human presence and disturbance reduce likelihood of roosting within or near project area.

Species	Status[A] (Federal/State/Other)	Geographic Distribution	Habitat Requirements	Likelihood of Occurrence[B]

Notes:

[a] **Status Codes**

-- = no listing.
FE = listed as endangered under the federal Endangered Species Act.
FT = listed as threatened under the federal Endangered Species Act.
PD = proposed for delisting under the federal Endangered Species Act
SE = listed as endangered under the California Endangered Species Act.
ST = listed as threatened under the California Endangered Species Act.
SSC = listed as a Species of Special Concern by the State of California
FP = California fully protected species
WBWG = Western Bat Working Group conservation priority (High or Medium)

[b] **Likelihood of Occurrence**

High: Known occurrences of the species within the study area, or CNDDB, or other documents, records the occurrence of the species within a 2.5-mile radius of the project area; suitable habitat is present within the project area.

Moderate: CNDDB, or other documents, records the known occurrence of the species within a 2.5-mile radius of the project area; poor quality suitable habitat is present within the project area.

Low: CNDDB, or other documents, does not record the occurrence of the species within a 2.5-mile radius of the project area; suitable habitat is present within the project area.

3.3.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.3.3.1, *Significance Criteria*.

With respect to the significance criteria above, the 2015 Certified EIR concluded that the Project would have no impact on the following resources because they either are not present on CSM or are not applicable to development on CSM. Thus, these resources were not evaluated in the 2015 Certified EIR. The Project Change would not change this conclusion. Therefore, these resources are not discussed further in this SEIR.

- Riparian Habitat/Sensitive Communities. No riparian communities or other sensitive natural communities were observed within the Project area on the CSM campus. ICF biologists did not observe riparian communities or other sensitive natural communities on the Project Change Site.
- Wetlands. No wetlands or other waters of the United States were observed on the potentially affected areas of the CSM campus. ICF biologists did not observe wetlands or other waters of the United States on the Project Change Site.
- Migratory Fish or Wildlife. There are no known migratory routes for terrestrial wildlife through the Project area, and no aquatic habitat is present. Land cover types within the Project area are not significantly different from the surrounding landscape, excepting a high degree of landscaped/disturbed (including development) land cover that fragments undeveloped areas with natural vegetation. Therefore, construction of the Project is not expected to have an impact on any established migratory fish or wildlife routes. ICF biologists did not observe aquatic habitat on the Project Change Site.
- Local Policies. The District is exempt from local zoning ordinances.
- Habitat Conservation Plans. There are no existing or pending habitat conservation plans or natural community conservation plans that include the Project area, including the Project Change Site.

Impact CSM-BIO-1: Impact special-status plant species (less than significant with mitigation)

The 2015 Certified EIR determined that Project construction could result in direct or indirect impacts on special-status plant species in areas where suitable habitat occurs. These areas are limited on the CSM campus and include coast live oak woodland near Building 8 and northern coastal scrub near Building 34. The Project Change would involve the demolition of all existing on-site structures on the Project Change Site, removal of all on-site landscaping and vegetation on the Project Change Site, and construction of a surface parking lot on the Project Change Site to serve CSM students and staff. No demolition or construction activities would occur outside the Project Change Site. Special-status plant species have the potential to occur in undeveloped areas with suitable habitat, namely areas that support natural land cover. As noted in Section 3.3.2.2, *Project Change Site*, and illustrated in **Figure 3.3-1**, the Project Change Site is entirely developed without natural land cover, and therefore no special-status plant species habitat is present. The closest CNDDB special-status plant occurrence is located approximately 0.4 mile from CSM (**Figure 3.3-2**). In addition, the dawn redwood tree is native to China and therefore is not a special-status plant. Thus, the Project Change would have no impact on special-status plant species or their habitat, and would not add to the Project impact on special-status plant species.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included **Mitigation Measure CSM-BIO-1** for **Impact CSM-BIO-1**. **Mitigation Measure CSM-BIO-1** requires the District to retain a qualified botanist prior to Project construction to survey any areas of proposed construction disturbance that contain suitable habitat for western leatherwood, fragrant fritillary, congested-headed hayfield tarplant, Choris' popcornflower, and showy Rancheria clover. This mitigation measure would not be applicable to the Project Change since the Project Change Site does not contain suitable habitat for western leatherwood, fragrant fritillary, congested-headed hayfield tarplant, Choris' popcornflower, or showy Rancheria clover.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-BIO-1

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on biological resources. Based on the analysis above, with incorporation of the Project Change, the Project would continue to have a less than significant impact with mitigation on biological resources. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-BIO-1.**

Impact CSM-BIO-2: Impact special-status bird species (less than significant with mitigation)

The Project Change would involve the demolition of all existing on-site structures on the Project Change Site, removal of all on-site landscaping and vegetation on the Project Change Site, and construction of a surface parking lot on the Project Change Site to serve CSM students and staff. As noted in Section 3.3.2.2, *Project Change Site*, although the Project Change Site is entirely developed, it provides foraging and nesting habitat for small birds and raptors, similar to other areas on CSM. Ground disturbance could result in direct or indirect impacts on nesting birds, including white-tailed kite, through destruction or disturbance of active nests. Birds that nest on existing building within or near the Project Change Site could be disturbed by the demolition of the structures on the Project Change Site or by construction of Project Change elements. Other temporary impacts on nesting birds resulting from construction activities would include air pollution from dust and construction equipment and construction noise and vibration. The Project Change would result in the disturbance (i.e., removal or replacement) of approximately 37,595 square feet (approximately 1.29 acre) of landscaped and open space (i.e., turf) area. This constitutes only 1.5 percent of the 86 acres of total landscaped and open space area currently located within the CSM Campus. Thus, the potential for the Project to adversely impact nesting birds would not substantially increase with the Project Change. With implementation of **Mitigation Measure CSM-BIO-2** from the 2015 Certified EIR, this impact would be less than significant.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-BIO-2: Implement white-tailed kite and other nesting bird avoidance measures at the College of San Mateo

Prior to any construction activities scheduled during the bird nesting season (February 1 to August 31), the District will retain a qualified wildlife biologist with demonstrated nest-

searching experience to conduct preconstruction surveys for nesting birds, including raptors. The preconstruction survey will occur no more than three days prior to the onset of ground disturbing activities (including clearing, grubbing, and staging). If active nests are found during the survey, no-disturbance species-specific buffer zones will be established by the biologist and marked with high-visibility fencing, flagging, or pin flags. No construction activities will be allowed within the buffer zones. The size of the buffer will be based on the species' sensitivity to disturbance and planned work activities in the vicinity; typical buffer sizes are 250 feet for raptors and 50 feet for other birds. The buffer will remain in effect until the nest is no longer active. If a lapse in Project-related activities of 15 days or longer occurs, another preconstruction survey will be conducted.

To the extent feasible, the District or its contractor will initiate building demolition outside of the nesting season to avoid impacts on active nests affixed to the structure before they become active during the nesting season (February 1 to August 31). If structure demolition activities cannot occur outside of the nesting season, the District or its contractor will remove inactive nests from the structure to be demolished and install nest exclusion measures (i.e., fine mesh netting, panels, or metal projectors) outside of the nesting season. All exclusionary devices will be monitored and maintained throughout the breeding season to ensure that they are successful in preventing the birds from accessing the cavities or nest sites. No more than 3 days prior to building demolition activities, a qualified biologist will conduct a preconstruction survey of all potential nesting habitat on the structure to be demolished and the surrounding areas for the presence of active nests. If active nests are found on the building or in the affected area, then demolition activities will not proceed until the biologist verifies that all nests on the building are inactive.

After all surveys and/or nest deterrence activities are completed, the biologist will complete a memorandum detailing the survey effort and results and submit the memorandum to the District within 7 days of survey completion.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-BIO-2

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on special-status bird species. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on special-status bird species. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-BIO-2.**

Impact CSM-BIO-3: Impact special-status bats (less than significant with mitigation)

The Project Change would involve the demolition of all existing on-site structures on the Project Change Site, removal of all on-site landscaping and vegetation on the Project Change Site. And construction of a surface parking lot on the Project Change Site to serve CSM students and staff. As noted in Section 3.3.2.2, *Project Change Site*, the Project Change Site is entirely developed land cover type but provides roosting and foraging habitat (buildings and large trees) for bat species, similar to other areas on CSM. Ground disturbance, vegetation removal, and structure demolition activities on

the Project Change Site could result in direct or indirect impacts on special-status bats thorough destruction or disturbance of active roosts. Where structure, tree, or other vegetation is conducted, the Project Change could disturb bat roosting habitat. Other temporary impacts on bat species resulting from Project Change construction activities would include air pollution from dust and construction equipment and construction noise and vibration. Although the potential to encounter special-status bat species is low, construction activities and related effects would still have potential to disturb habitat and individual fringed myotis, pallid bat, and hoary bat. With implementation of **Mitigation Measure CSM-BIO-3** from the 2015 Certified EIR, this impact would be less than significant.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-BIO-3: Implement fringed myotis, pallid bat, and hoary bat avoidance measures at the College of San Mateo

Prior to the start of construction activities at sites offering suitable bat roosting habitat, the District will retain a qualified wildlife biologist with demonstrated bat field experience to conduct preconstruction surveys for fringed myotis, pallid bat, and hoary bat. Surveys will take place no more than 7 days prior to the onset of site preparation (e.g., tree removal) and construction activities with the potential to disturb bats or their habitat and will include close inspection of potential bat roosts, such as trees and any built features within the Project footprint.

If special-status bats are found in the footprint of a proposed improvement and avoidance of roosting areas is not possible, avoidance and minimization measures will be required if it is determined that bats are using the trees as roost sites and/or sensitive bat species are detected during acoustic monitoring. Appropriate measures will be determined in coordination with CDFW and may include the following measures.

- Tree removal will be avoided between April 15 and September 15 (the maternity period) to avoid impacts on pregnant females and active maternity roosts (whether colonial or solitary).
- All tree removal will be conducted between September 15 and October 30, which corresponds to a time period when bats have not yet entered torpor or would be caring for non-volant young.
- Trees will be removed in pieces, rather than felling the entire tree.
- If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until September 15 or until a qualified biologist has determined the roost is no longer active.
- If avoidance of non-maternity roost trees is not possible, and tree removal or trimming must occur between September 15 and October 30, qualified biologists will monitor tree trimming/removal. Prior to removal/trimming, each tree will be gently shaken and several minutes should pass before felling trees or trimming limbs to allow bats time to arouse and leave the tree. The biologists should search downed vegetation for dead and injured bats. The presence of dead or injured bats that are species of special concern will be reported to CDFW.
- Compensatory mitigation for the loss of roosting habitat will also be determined through consultation with CDFW and may include the construction and installation of suitable replacement habitat (e.g., bat houses, planting cottonwood trees) onsite.

The District will be responsible for ensuring that CDFW requirements are implemented. Multiple survey visits and survey methods may be required at a single site to determine presence or absence of roosting bats depending on season and roost type.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-BIO-3

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on special-status bat species. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on special-status bat species. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-BIO-3.**

Impact CSM-BIO-4: Impact native wildlife nursery sites (less than significant with mitigation)

The Project Change would involve the demolition of all existing on-site structures on the Project Change Site, removal of all on-site landscaping and vegetation on the Project Change Site, and construction of a surface parking lot on the Project Change Site to serve CSM students and staff. As noted in Section 3.3.2.2, *Project Change Site*, although the Project Change Site is entirely developed, it provides foraging and nesting habitat for small birds and raptors. Ground disturbance and removal of trees or other vegetation on the Project Change Site could result in direct or indirect impacts on nesting birds, including white-tailed kite, through destruction or disturbance of active nests. With implementation of **Mitigation Measure CSM-BIO-2**, this impact would be less than significant

With implementation of **Mitigation Measure CSM-BIO-2**, this impact would be less than significant.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-BIO-2: Implement white-tailed kite and other nesting bird avoidance measures at the College of San Mateo. See above.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-BIO-4

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on native wildlife nursery sites. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on native wildlife nursery sites. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-BIO-4.**

3.4 Cultural Resources

This section discloses and analyzes the potential change in Project impacts on cultural resources that would result from implementing the Project Change.

3.4.1 Regulatory Setting

The regulatory setting for cultural resources is described on pages 3.4-1 to 3.4-5 of the 2015 Certified EIR. These regulations include: National Historic Preservation Act; California Public Resources Code Sections 5024(b), 5024.1, 21083.2, 21084.1, 31083.2 (g); California Code of Regulations, Title 14, Section 4850; State CEQA Guidelines Sections 15064.5 (a), (b), (e), (g); California Health and Safety Code Section 21083.2; and San Mateo General Plan. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location of where the 2015 Certified EIR is available for public review.

3.4.1.1 California Assembly Bill (AB) 52

In addition to the cultural resource regulations described in the 2015 Certified EIR, the Project Change is subject to the requirements of Assembly Bill number 52 (AB-52), which was signed into law in September 2014 and became effective on July 1, 2015. In accordance with Assembly Bill number 52 (AB-52), all actions that have a notice of preparation, notice of negative declaration, or a mitigated negative declaration on or after July 1, 2015 must consider impacts to *Tribal Cultural Resources* (TCR). AB-52 also stipulated that the CEQA guidelines would be revised to consider TCRs as a distinct environmental resource (i.e., separate from cultural and paleontological resources) category by July 1, 2016. Under AB-52, TCRs are defined sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe *and* meets the definition of a cultural resource or a cultural landscape under CEQA (PRC SS21074 [a]).

Among other processes, AB-52 outlines the process to follow in order to determine whether TCRs will be affected by an action. If a California Native American tribe requests, in writing, that a lead agency formally notify them of projects that occur in the geographic area traditionally and culturally affiliated with the tribe; the lead agency must provide formal written notification of a proposed project within 14 days of determining that that project application is complete or of a decision by a public agency to undertake the project. If the Native American tribe responds to the formal written notification and requests consultation within 30 days of receipt of notification, the lead agency must begin the consultation process within 30 days of receipt of the request (PRC SS21080.3.1). Consultation is considered to be concluded when the lead agency and consulting parties agree that no TCRs exist; agree to measures that mitigate or avoid a significant effect to a Tribal cultural resource; or a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC SS21080.3.2).

The notice of preparation for the 2015 Certified EIR was issued on May 4, 2015, prior to the effective date of AB 52 (July 1, 2015). Therefore, the District did not, and was not required to, provide written notification of the Project to tribes, and the Certified 2015 Certified EIR did not include an analysis of potential impacts to TCRs.

No additional changes have been made to the regulations summarized in the 2015 Certified EIR that would affect the environmental analysis of the Project Change.

3.4.2 Environmental Setting

3.4.2.1 College of San Mateo

The environmental setting for cultural resources at College of San Mateo (CSM) is described on pages 3.4-5 to 3.4-16 of the 2015 Certified EIR. This discussion includes: an overview of the history of the San Mateo County Community College District (SMCCCD) from the 1920s through the late 1960s; expanded description of early CSM campus development; historic context associated with campus architect, John Carl Warnecke; description of 1960s renovations to the campus; and description of existing San Mateo Campus site conditions. This discussion also provides an evaluation of historical significance and integrity of the CSM campus and concludes that the Fine Arts Complex (Music, Theater, and Art buildings), Library, and Administration building are eligible for listing in the California Register of Historical Resources (CRHR) as contributors to the National Register of Historic Places (NRHP)-eligible College of San Mateo Historic District under Criteria 1, 2, and 3. In addition, this discussion recommends that the Fine Arts Complex and Library are individually eligible for listing in the CRHR under Criteria 1, 2, and 3. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIR is available for public review.

The CSM improvements evaluated in the 2015 Certified EIR have not yet been implemented, and the setting with regard to cultural resources at CSM has not changed substantially since the Certified Plan was prepared.

3.4.2.2 Project Change Site

The District is proposing to demolish the Building 20 complex at CSM and construct a surface parking lot with associated landscaping and infrastructure improvements. The proposal to demolish the Building 20 complex represents a change in the scope of the Project analyzed in the 2015 Certified EIR, which did not propose any changes to the Building 20 complex due to pending litigation. As previously discussed, the 2015 Certified EIR identified that the CSM campus contained a historic district eligible for listing in the CRHR; however, the Building 20 complex was not identified as a contributor to this historic district. The Building 20 complex was not evaluated for its individual eligibility for listing under CRHR criteria since no changes were proposed to any of the structures within the complex. The 2015 Certified EIR determined that the Project would have a less than significant impact on historical resources.

In order to document the individual eligibility of the Building 20 complex under CRHR criteria, ICF prepared a *Cultural Resources Evaluation Memorandum for the Building 20 Complex at College of San Mateo* (ICF 2018), which outlines the developmental history of the complex and evaluates the complex for its eligibility under California Register of Historical Resources (CRHR) criteria. The Site Development History, Existing Conditions, and Historical Significance sections below are summarized from the *Cultural Resources Evaluation Memorandum for the Building 20 Complex at College of San Mateo* (ICF 2018). The analysis of the Project Change's impacts to historic resources in Section 3.4.3 is based on this assessment. The *Cultural Resources Evaluation Memorandum for the Building 20 Complex at College of San Mateo* is provided in **Appendix C** of this SEIR.

Site Development History

Building 20 is among the original facilities designed by Warnecke and completed in 1963. The building served as the long-term home of CSM's horticulture program and, later, student service offices. Sited to the east of, and down slope from, the axial mall that formed the northern half of the campus, Building 20 was physically removed somewhat from the core of the College Heights campus. Despite its slightly peripheral location, the Building 20 site was generously sized with adjacent grounds that ultimately were utilized in support of the classroom instruction that occurred in the adjacent building. The greenhouse, however, was not built during the initial construction campaign: early photographs of the College Heights campus documented that the areas south and north of Building 20—where the greenhouse, lath house, and North and South Gardens are currently located—contained large and open lawns covered in grass. The only feature currently within the Building 20 site that appears in the earliest photographs available of the College Heights campus (c.1963-1965) is the asphalt paved walkway that leads along the slopes at the southeast and southwest edges of the Project Change Site.

The greenhouse had been constructed east of Building 20 by 1968, as documented in an aerial photograph taken that year. Completion of the greenhouse fulfilled Warnecke's original design for the Building 20 complex and provided space for plant storage and laboratory instruction. The lath house had not yet been constructed by 1968, however, and the Building 20 site retained its open character.

Archived CSM catalogs offer snapshots into the curricular and facility needs of the horticulture program. During the 1970-1971 academic year (the earliest year for which a catalog is available on the college's website), the program then offered two certificate programs—Ornamental Horticulture and Vocational Gardening—whose curricula included numerous courses that involved lab hours, which are presumed to have utilized the Building 20 greenhouse (College of San Mateo 1970:204-207). The following year, the program's offerings had expanded to include three certificate programs in addition to the Associate in Arts Degree with a major in Ornamental Horticulture (College of San Mateo 1971:57-58). By the end of the 1970s, an additional certificate program in floristry had been introduced (College of San Mateo 1979:91-92).

By 1980, the next year for which an aerial photograph documenting the CSM campus is available, the lath house and the orderly planting beds and walkways comprising the demonstration garden had been introduced, although the majority of the site surrounding Building 20 and its appurtenant buildings remained undeveloped. Like the greenhouse facility, the lath house supported horticulture instruction by providing a semi-protected space in which students cultivated plants. The demonstration garden, too, was utilized by students. Furthermore, the slopes to the south of the Building 20 complex had begun to be filled in by trees. The CSM catalog for the 1979-1980 academic year also noted that Building 20 contained the College Readiness Program in addition to the horticulture program (College of San Mateo 1979:224).

A review of available aerial photographs reveals that additional landscape features were introduced in the North Garden during the 1980s. A network of paths was in place by 1987, including the concrete-paved path that currently traverses through the lawn northwest of Building 20. However, the dense and varied vegetation that currently characterizes the perimeter of the North Garden had not yet been planted. By the late 1980s, campus maps note that Building 20 housed the offices of the Extended Opportunity Programs and Services and Multicultural Center (College of San Mateo 1987:122). A 1993 aerial photograph reveals that the circular planting bed and radiating brick paths

north of Building 20 had been constructed by this time. The photograph from this year is the first available that clearly shows the dawn redwood that stands near the edge of the South Garden.

Prior to 2005, a portion of the North Garden near the northern edge of the site had been cleared, and some plantings had been introduced. Trees located on the slopes bounding the south side of the Project Change Site, as well as those that stood between Building 20 and the adjacent building to the northwest, had continued to mature during the intervening years. Along with the site's depressed elevation, the mature trees screened Building 20 from nearby areas of the campus. A portion of the perimeter tree band, however, was removed due to the construction of the nearby Science Building and Planetarium (Building 36). This new facility, located to the west of the Building 20 complex, was developed across the CSM campus's axial north mall and introduced a physical and visual barrier that further separated Building 20 from the center of the campus. Landscape features in the immediate vicinity of Building 20 do not appear to have changed substantially since this time, although mature trees along the northern boundary of the Project Change Site were removed c.2015 when the neighboring building was demolished.

Following the turn of the twenty-first century, the CSM horticulture program offered the Associate in Science degrees in three subareas of environmental horticulture, as well as the Associate in Arts degree in floristry (College of San Mateo 2001:84). However, after declines in course enrollments and degrees awarded, the CSM horticulture program was put on hiatus in 2009, and in 2011, the SMCCCD Board of Trustees voted to eliminate the program beginning in the fall of 2012 (Sen 2011). The discontinuation of the horticulture program resulted in the disuse of Building 20, greenhouse, and lath house. The facilities remain vacant.

Existing Conditions

The Building 20 complex is located within the northeastern portion of the CSM campus, and is generally bounded on the north by Perimeter Road and on the south by existing Buildings 19 and 12. The complex is comprised of the primary instructional building, Building 20, at roughly the center of the Project Change Site; the greenhouse and lath house are located southeast-adjacent to Building 20. The complex also contains two landscaped areas located northwest and southeast of Building 20 (referred to as the North Garden and South Garden, respectively). The Project Change Site is generally flat but is bounded to the southeast and southwest by steeply sloped terrain covered in trees and dense vegetation. Several stairways lead down the slopes to enter the South Garden. An asphalt walkway leads along the southern perimeter of the Project Change Site; surface parking lots are located adjacent to Perimeter Road to the east of Building 20, greenhouse, and lath house.

Completed in 1963 as a component of the original CSM campus, Warnecke designed Building 20 in the New Formalist architectural style. It is a one-story, cross-plan instructional building with arms of equal length. An open-air courtyard forms the center of the building's plan. The roof is flat and features widely overhanging eaves with shaped soffits. The exterior walls of the building are constructed of concrete. The walls comprising the outer ends of the building's arms feature evenly spaced, square concrete structural piers that are turned 45 degrees. Between the structural piers, the walls contain horizontal bands of aluminum-frame windows below the roofline. The exterior walls that form the sides of the building's arms have no windows but feature pedestrian and automobile doors.

The greenhouse located adjacent to Building 20 was constructed c.1965-1968. The metal-framed greenhouse is utilitarian in style; it has a square plan and three gabled roof forms. The exterior walls are constructed of a grid of metal mullions containing glass panes, above a concrete perimeter

foundation. The interior of the building is accessed through a series of paired, partially glazed metal doors.

The lath house is formed by two small wood-framed storage buildings located to the southeast of the greenhouse and joined by a central, partially enclosed yard. The buildings express a minimally modernist architecture style and feature flat roofs with rafters exposed underneath the overhanging eaves. Exterior walls are clad in vertical-groove T1-11 plywood siding. The two buildings feature paired, vinyl-sash windows. The central yard between the two buildings is delineated by wood lath applied over a wood frame.

The North Garden is characterized by an open, roughly circularly shaped grass lawn, bounded to the north and west by a band of dense plantings containing a variety of flowers, shrubs, and trees. Pedestrian circulation through the North Garden occurs via a network of paths. One curving concrete path meanders through the grass lawn and terminates at a circular brick-edged planting bed located near the north corner of the site. Brick paths radiate from the planting bed and lead through the planted area, connecting to a curvilinear path. While these planting beds and pathways remain intact, many are overgrown. Bed plantings appear unmaintained and vegetation restricts pedestrian circulation along some pathways.

The South Garden contains a demonstration garden located adjacent to the greenhouse and lath house, featuring rectangular beds divided by a network of brick and concrete walkways. The remainder of the South Garden is an open grass lawn containing light poles and a semi-mature *Metasequoia glyptostroboides* (dawn redwood) tree. A brick-paved patio with raised planting beds is also located within the South Garden, immediately south of Building 20.

Historical Significance

Previous Evaluations

In 2011, Historic Resource Associates evaluated the CSM campus for eligibility for listing in the NRHP as part of the Section 106 compliance process for the collocation of new telecommunications equipment within the CSM campus. At this time, evaluators prepared the Cultural Resources Study of the College of San Mateo Project, AT&T Site No. CNU1796, which included a discussion of the development context of the entire CSM campus. The evaluation also involved the documentation of the College of San Mateo Fine and Performing Arts Building (Building 3) on Department of Parks and Recreation (DPR) Primary Record and Building, Structure, & Object Record forms. Historic Resource Associates' 2011 evaluation determined that original buildings belonging to the CSM campus, designed by John Carl Warnecke and completed in 1963, appeared to be a NRHP-eligible historic district. However, the 2011 evaluation did not fully document which campus buildings were contributors to the historic district, stating that "the contributing buildings include the Fine and Performing Arts (Building 3), Administration (Building 1), Gymnasium (Building 8), and Library (Building 9)" (Historic Resource Associates 2011:2). The 2011 DPR forms specify that the resource was eligible for NRHP listing under Criteria A, B, and C, and has a period of significance of 1963. Historic Resource Associates' 2011 evaluation did not document whether any buildings within the CSM campus were eligible for listing in the NRHP as individual resources.

The 2015 Certified EIR summarized the 2011 evaluation of the CSM campus and generally concurred with its findings, although evaluators specified that the Fine Arts Complex, Library, and Administration Building "appear to be the only buildings eligible for listing in the CRHR as contributors to the NRHP-eligible College of San Mateo Historic District under Criteria 1, 2, and 3"

(San Mateo County Community College District 2015:3.4-16). The 2015 documentation of the CRHR-eligible historic district determined that new buildings and landscape features constructed at CSM since 2000 have intruded upon much of the original campus's site layout and spatial relationships, thus lowering the campus's integrity of design. The three buildings identified as contributors to the CRHR-eligible historic district "continue to be visually connected and together represent the original elements of Warnecke's design intent as a grand Modernist university with formal axes" (San Mateo County Community College District 2015:3.4-15), whereas other extant campus buildings no longer convey an association with the original campus design. Additionally, the 2015 Certified EIR determined that the "Fine Arts Complex and Library also appear to be eligible for listing in the CRHR under Criteria 1, 2, and 3" (San Mateo County Community College District 2015:3.4-16).

Building 20 Complex Evaluation: California Register of Historical Resources Criteria

As discussed above, the Building 20 complex was previously found to not contribute to the College of San Mateo Historic District, which is limited to a core of original campus buildings in the approximate center of the campus. In order to consider again the individual eligibility of the Building 20 complex under CRHR criteria for this SEIR, ICF completed a *Cultural Resources Evaluation Memorandum for the Building 20 Complex at College of San Mateo* (ICF 2018) (refer to Appendix C). The memorandum concluded that the Building 20 complex, including Building 20, and the adjacent greenhouse, lath house, North Garden, and South Garden, was found to not be individually eligible for listing in the CRHR for the following reasons.

While the Building 20 complex was constructed to serve as a facility for CSM's horticulture program, the program does not appear to have been significant for pioneering new forms of instruction in the field or influencing horticultural research at the national, state, or local level. Similarly, horticulture does not appear to be a field for which CSM was distinguished among community or junior colleges in California during the post-World War II period. As such, the Building 20 complex does not have associations with significant events and is not significant under CRHR under Criterion 1.

Research did not reveal any instructors or alumni associated with the horticulture career program at CSM—which utilized Building 20, adjacent buildings, and gardens—as being significant for contributions to local, state, or national history. Thus, the Building 20 complex is not significant under CRHR Criterion 2.

Building 20 was constructed during the 1960s as one of the original College Heights campus buildings designed by John Carl Warnecke. While Building 20 expresses some of the basic elements of the New Formalist architectural style that Warnecke utilized throughout the surrounding campus, it is a modest example, eclipsed by the Library and Fine Arts Complex (which are recognized in 2015 Certified EIR as contributors to a historic district determined significant under Criterion 3). Building 20 does not reflect high artistic values and does not represent an exceptional example of Warnecke's work as a master architect. The greenhouse and lath house, which were constructed after the campus' 1963 completion, are utilitarian in design and do not embody the distinctive characteristics of a type, period, region, or method of construction. With regard to the North and South Gardens, the National Park Service defines several categories of cultural landscapes. A historic vernacular landscape is defined by the NPS as "a landscape that evolved through use by the people whose activities or occupancy shaped that landscape." A historic designed landscape is defined as "a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition" (Birnbaum 1994). The core distinction between these two categories

is that the physical form of a historic vernacular landscape originates and evolves through its continued use by individuals or communities, whereas the physical form of a historic designed landscape is planned and implemented according to the intentions of a trained or amateur designer. The North Garden and South Garden are best categorized as a designed landscape due to their design as part of the Building 20 horticultural complex to provide an area for student instruction and recreation. While the North Garden and South Garden (adjacent to Building 20) are designed landscapes, they are less than 50 years old and are unremarkable examples that do not appear to convey a design tradition or principles that embody a type, period, or region associated with significant landscape design. As such, the Building 20 Complex is not significant under CRHR Criterion 3.

The CSM campus was previously evaluated under CRHR Criterion 4 in the 2015 Certified EIR and found to not appear to be significant as a source, or likely source, or important information, nor does it likely yield information about historic construction methods, materials or technologies. No additional information was uncovered as part of the Building 20 Complex research and ICF concurs with the previous finding that the property is not significant under CRHR Criterion 4.

Based on this evaluation, the Building 20 complex, including Building 20, and the adjacent greenhouse, lath house, North Garden, and South Garden, does not meet CEQA's definition of a historical resource (ICF 2018).

3.4.3 Impacts Analysis

This section describes the change in Project impacts on cultural resources that would occur with the Project Change. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant.

3.4.3.1 Methodology

To identify cultural resources in or within 0.5-mile of the campus, researchers conducted historical research, record search, Native American consultation, field survey, and additional property specific research. New research, as well as efforts undertaken during preparation of the 2015 Certified EIR, supported identification of bibliographic references, previous survey reports, historic maps, and archaeological site records pertaining to the study area, as well as identification of prior studies and known cultural resources within a 0.5-mile radius of the campus.

Historical Research

To supplement historical research conducted during preparation of the 2015 Certified EIR, resources consulted for this analysis include the following:

- College of San Mateo Archives historic photographs, accessed via the CSM Library website;
- Historical issues of the *San Francisco Chronicle*, accessed via the San Francisco Public Library website;
- Online CSM catalog archive available on the CSM website;
- California Digital Newspaper Collection;
- Online Archive of California;
- Historicaerials.com.

Records Search Results

To support preparation of the 2015 Certified EIR, a records search (File #14-1508) was conducted at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park, on April 30, 2015. The records search conducted for the 2015 Certified EIR is relevant to the environmental analysis of the Project Change. The records search involved a review of the following information.

- Site records for previously recorded sites.
- All previous studies conducted within, or within 0.5-mile of, the Archaeological Area of Potential Effect (APE).
- The NRHP.
- The California Historic Resources Inventory.
- The Office of Historic Preservation (OHP) Historic Properties Directory (HPD).

Previously-Recorded Cultural Resources in or within 0.5-Mile of College of San Mateo

The NWIC identified one resource on the CSM campus.

- P-41-002284: This resource consists of the College of San Mateo Fine and Performing Arts building (Building 3), a two to three-story reinforced concrete Fine Arts Complex designed in the Formal Modern Classical style of architecture. The building is characterized by a central plaza surrounded on three sides by two-story classrooms and a two-story arcade. It was built in 1962–1963 and has an NRHP status code of 3D (appears eligible for the NRHP as a contributor to a NRHP-eligible district through survey evaluation).

The NWIC identified one resource within 0.5 mile of the CSM campus.

- P-41-000456/CA-SMA-339: This resource consists of a "badly disturbed" shell midden site with some fire cracked-rock. The site records notes that there is "considerable disturbance" to the site integrity as Polhemus Road is graded through the site (Chavez 1993).

Previous Cultural Resources Studies in or within 0.5-Mile of College of San Mateo

Six studies have been conducted on the CSM campus and an additional 17 studies have been conducted within 0.5 mile of the CSM campus. These sources were consulted during development of the 2015 Certified EIR. Details about those materials and full citations can found in the 2015 Certified EIR.

Native American Consultation

As described above, as part of the CEQA process, AB 52 establishes a process where all California Native American Tribes may request consultation with the lead agency on the possible presence of TCRs within the jurisdiction of the lead agency. To date, the District has not received any requests from local Native American Tribes to provide notification of new projects subject to CEQA review. In an effort to demonstrate good faith in implementing the intent of the AB 52 process, ICF contacted the Native American Heritage Commission (NAHC) on January 9, 2018, to request a contact information for Native American tribes and individuals with ancestral lands and interests in the project vicinity. A search of the Sacred Lands File (SLF) was also requested. The NAHC responded on January 24, 2018 with a Negative SLF search and a list of 5 Tribal Representatives. Letters, containing the project location and description, were sent out to the following representatives:

- Tony Cerda, Chairperson – Coastanoan Carmel Tribe
- Irenne Zwierlein, Chairperson – Amah Mutsun Tribal Band of Mission San Juan Bautista
- Rosemary Cambra, Chairperson – Muwekma Ohlone Indian Tribe of the SF Bay Area
- Andrew Galvan – The Ohlone Indian Tribe
- Ann Marie Sayers, Chairperson – Indian Canyon Mutsun Band of Coastanoan

Pursuant to AB 52 California Native American Tribes have 30 days from receipt of letter to request consultation. No requests for consultation were received within that timeframe in response to the above referenced correspondence.

Field Survey

Archaeological field investigations were performed in support of the 2015 Certified EIR. Since these investigations included the Project Change Site, no additional archaeological investigations were performed for the Project Change. The previous archaeological field investigations consisted of an archaeological survey at the CSM campus on May 18, 2015. The ground surface was inspected for indications of human activity, such as midden soils, lithics, modified stone or bone, historic-era resources such as ceramics and glass, construction debris, and foundations/pads. The campus grounds are composed mostly of fill or are covered by asphalt or landscaping materials. As such, there was little ground visibility. No cultural material was observed at CSM.

An ICF architectural historian surveyed the CSM campus on April 20, 2015 and May 8, 2015. The survey included field verification of resources over the age of 50 years, documentation of visible changes, alterations and additions to the campus, and documentation of the campus with photographs and written notes. Additional pedestrian surveys of the Building 20 complex were conducted on August 16, 2017, December 7, 2017, and December 19, 2017 to confirm existing conditions, which have not changed substantially since the completion of the 2015 Certified EIR. The survey involved photographic documentation of Building 20 in addition to the adjacent greenhouse, lath house, North Garden, and South Garden.

Additional Property-Specific Research

As discussed above, in the documentation prepared for the 2015 Certified EIR, the Building 20 complex was found to not contribute to the College of San Mateo Historic District, which is limited to a core of original campus buildings in the approximate center of the campus. ICF completed a *Cultural Resources Evaluation Memorandum for the Building 20 Complex at College of San Mateo* (ICF 2018) in order to document the individual eligibility of the Building 20 complex for listing in the CRHR. The Building 20 complex was found to not be individually eligible for listing in the CRHR by ICF under the current evaluation. The findings of this additional research are summarized under the Historical Significance sub-heading included in Section 3.4.2.2, above.

3.4.3.2 Significance Criteria

The State CEQA Guidelines Appendix G (14 California Code of Regulations 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on cultural resources.

An impact would be considered significant if construction or operation of the Project would do any of the following.

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.

3.4.3.3 Impacts and Mitigation Measures

Unless otherwise noted, the current analysis assumes that applicable mitigation measures from the 2015 Certified EIR would be implemented for the Project Change; these measures are listed below under each respective impact heading. If new mitigation measures are needed to reduce new impacts that would result from the Project Change, those measures are also listed.

This SEIR analysis evaluates the change in Project impacts as a result of the Project Change, and, if applicable, changes in circumstances or new information that was not available at the time the 2015 Certified EIR was prepared. The analysis does not reevaluate the impacts of the Project that were already disclosed in the 2015 Certified EIR and are not altered due to the Project Change. Based on the change in the Project impacts due to the Project Change, a determination is made as to whether there would be changes to the impact significance determinations for the Project in the 2015 Certified EIR.

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.4.3.2, *Significance Criteria*.

Impact CSM-CUL-1: Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 (less than significant)

The Project Change would include demolition the Building 20 Complex and construction of a surface parking lot containing 208 uncovered parking stalls, attendant landscaping, lighting, signage, storm drain, and security improvements. As discussed in Section 3.4.2.2, the Building 20 Complex, comprised of Building 20, the adjacent greenhouse and lath house, the North and South Gardens, and the adjacent parking lots, does not meet CEQA's definition of a historic resource. Further, as disclosed in the 2015 Certified EIR, the Building 20 Complex does not contribute to the College of San Mateo Historic District. As such, the Project Change would not cause a substantial adverse change in the significance of an historic resource pursuant to Section 15064.5.

Conclusions for Impact CSM-CUL-1

The 2015 Certified EIR determined that the Project would not cause substantial adverse change in the significance of an historical resource. Based on the analysis above, with incorporation of the Project Change, the Project would continue to have a less than significant impact on historical resources and would not require mitigation. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-CUL-1**.

Impact CSM-CUL-2: Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 (less than significant with mitigation)

The Project Change would include demolition the Building 20 Complex for construction of a surface parking lot, and would include excavation for utility trenching to a depth of approximately five feet below grade surface. As discussed in Section 3.4.3.1, no archeological resources were identified in the area of the Building 20 Complex. Further, no Native American tribes requested consultation under AB 52. Although no archeological resources were identified through previous background records searches, field surveys, or Native American Consultation, consistent with the conclusion in the 2015 Certified EIR, the potential exists for previously undiscovered prehistoric or historic archeological resources to be encountered during construction of the Project Change. The 2015 Certified EIR included **Mitigation Measure CSM-CUL-1** to address this potential impact. The Project Change would be subject to this mitigation measure.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-CUL-1: Stop work if cultural resources are encountered during ground-disturbing activities at the College of San Mateo.

The District will ensure the construction specifications include a stop work order if prehistoric or historic-period cultural materials are unearthed during ground-disturbing activities. All work within 100 feet of the find will be stopped until a qualified archaeologist and Native American representative can assess the significance of the find. Prehistoric materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or tool making debris; culturally darkened soil (midden) containing heat-affected rocks and artifacts; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered-stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the find is determined to be potentially significant, the archaeologist, in consultation with the Native American representative, will develop a treatment plan that could include site avoidance, capping, or data recovery.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to further reduce Project impacts.

Conclusions for Impact CSM-CUL-2

The 2015 Certified EIR determined that the Project would have a less than significant impact on archaeological resources with mitigation. Based on the analysis above, with incorporation of the Project Change, the Project would continue to have a less than significant impact on archaeological resources with mitigation. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **CSM-CUL-2**.

Impact CSM-CUL-3: Disturb any human remains, including those interred outside of formal cemeteries (less than significant with mitigation)

The Project Change would include demolition the Building 20 Complex for the purpose of building a single surface parking lot, and would include excavation for utility trenching to a depth of approximately five feet below grade surface. As discussed in Section 3.4.3.1, no known human remains are located in the area of the Building 20 Complex. Further, no Native American tribes

requested consultation under AB 52. Although no human remains were identified through the previous background records search, during field survey, or through Native American Consultation, the potential exists for previously undiscovered human remains to be encountered during construction of various elements of the Project Change.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-CUL-2: Stop work if human remains are encountered during ground-disturbing activities at the College of San Mateo

The District will ensure the construction specifications include a stop work order if human remains are discovered during construction or demolition. There will be no further excavation or disturbance of the site within a 50-foot radius of the location of such discovery, or any nearby area reasonably suspected to overlie adjacent remains. The San Mateo County Coroner will be notified and will make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he will notify the Native American Heritage Commission, who will attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this state law, then the land owner will re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

The Project Change would not result in the need for new mitigation measures to further reduce Project impacts.

Conclusions for Impact CSM-CUL-3

The 2015 Certified EIR determined that the Project would have a less than significant impact on human remains with mitigation. Based on the analysis above, with incorporation of the Project Change, the Project would continue to have a less than significant impact on human remains with mitigation. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **CSM-CUL-3**.

3.5 Greenhouse Gas and Energy

This section discloses and analyzes the potential change in Project impacts on greenhouse gas and energy that would result from implementing the Project Change.

3.5.1 Regulatory Setting

The regulatory setting for greenhouse gas and energy is described on pages 3.6-1 to 3.6-10 of the 2015 Certified EIR. These regulations include federal regulations concerning fuel economy and greenhouse gases; state executive orders and legislative bills concerning energy efficiency, renewable energy, fuel economy, and the state's greenhouse gas goals; and local plans concerning regional-, city-, and campus-level policies towards greenhouse gases. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location of where the 2015 Certified EIR is available for public review.

The regulatory environment concerning greenhouse gases and energy is largely the same as regulatory setting discussed in the Certified EIR. However, some noteworthy new regulations are summarized below.

New State Greenhouse Gas Regulations (Since 2015 Certified EIR)

Senate Bill 350—De Leon (Clean Energy and Pollution Reduction Act of 2015)

SB 350 was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: (1) a renewables portfolio standard of 50 percent and (2) a doubling of energy efficiency (electrical and natural gas) by 2030, including improvements to the efficiency of existing buildings. These mandates will be implemented by future actions of the California Public Utilities Commission and California Energy Commission.

Senate Bill 32 and Assembly Bill 197

SB 32 requires the ARB to ensure that statewide GHG emissions are reduced to at least 40 percent below 1990 levels by 2030. The companion bill, AB 197, creates requirements to form a Joint Legislative Committee on Climate Change Policies, requires the ARB to prioritize direct emission reductions and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit, requires ARB to prepare reports on sources of GHGs and other pollutants, establishes six-year terms for voting members of ARB, and adds two legislators as non-voting members of ARB.

Pursuant to SB 32, ARB updated the prior AB 32 Scoping Plan to address implementation of GHG reduction strategies to meet the 2030 reduction target. The Final Plan was approved in December 2017. The 2017 plan continues the discussion from the original scoping plan and 2014 update of identifying scientifically-backed policies within six of the state's economic sectors to reduce GHGs. The updated Scoping Plan includes various elements, including doubling energy efficiency savings, increasing the low carbon fuel standard from 10 to 18 percent, adding 4.2 million zero-emission

vehicles on the road, implementing the Sustainable Freight Strategy, implementing a post-2020 Cap-and-Trade Program, creating walkable communities with expanded mass transit and other alternatives to traveling by car, and developing an Integrated Natural and Working Lands Action Plan to protect land-based carbon sinks.

New Local Greenhouse Gas Regulations (Since 2015 Certified EIR)

Bay Area Air Quality Management District/2017 Clean Air Plan

In May 2017, the Bay Area Air Quality Management District (BAAQMD) updated their California Environmental Quality Act (CEQA) guidelines (Bay Area Air Quality Management District 2017a). While the Certified EIR used the BAAQMD's 2011 CEQA guidelines to determine significance, this SEIR will use the 2017 CEQA guidelines. There have been no substantial changes to any significance thresholds between the 2011 and 2017 guidelines, however, the air district is now formally recommending the significance thresholds contained in the 2017 guidelines. The significance thresholds from the 2011 CEQA guidelines were not formally recommended by the BAAQMD when the Certified EIR was prepared, because of the pending case in the California Supreme Court, as discussed in the Certified EIR. The significance thresholds from the 2011 CEQA guidelines were nonetheless used in the Certified EIR, because the thresholds were based on substantial evidence as documented in Appendix D of the 2011 guidelines. With the conclusion of the case in BAAQMD's favor, the significance thresholds contained in the CEQA guidelines adopted in 2017 are formally recommended by BAAQMD. The significance thresholds relevant to greenhouse gases are summarized in *Significance Criteria*, below.

On April 19, 2017, the BAAQMD Board of Directors adopted an update to the 2010 Clean Air Plan, the *2017 Clean Air Plan* (Bay Area Air Quality Management District 2017b). Both the *2010* and *2017 Clean Air Plans* focus on protecting public health, protecting the climate, and contain control measures aimed at reducing air pollution in the region. Additionally, many of the control measures included in the *2010 Clean Air Plan* have been carried forward into the *2017 Clean Air Plan*.

City of San Mateo Climate Action Plan

The City's Climate Action Plan (CAP) was adopted before preparation of the Certified EIR and was discussed in that document. Although the City's CAP has not been updated since the Certified EIR, this discussion has been included in the SEIR to note that the CAP is not applicable to the Project Change. The SMCCD is a special district within the City of San Mateo, which is not governed by the land use authority of the City and is not required to obtain a permit from the City to proceed with the Project Change. Because the District is not subject to the City's land use authority, the City's Climate Action Plan does not apply to the Project Change. Consequently, the Project Change's consistency with the City's CAP is not evaluated in this analysis.

3.5.2 Environmental Setting

3.5.2.1 College of San Mateo

The environmental setting for greenhouse gas and energy at CSM is described on pages 3.6-10 to 3.6-15 of the 2015 Certified EIR. This discussion describes the background of climate change, including the principle greenhouse gases; global, national, state and local greenhouse gas emissions inventories; and the impacts of climate change. This information is incorporated by reference

pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIR is available for public review.

The setting with regard to greenhouse gas and energy at CSM has not changed substantially since the Certified Plan was prepared. However, some setting details require updating based on new analyses and data that have become available since the Certified EIR. Primarily, the greenhouse gas emissions inventories developed for some jurisdictions in Table 3.6-2 of the Certified EIR have been updated with more recent analysis-years. The jurisdictions with updated GHG emissions are shown in **Table 3.5-1**.

Table 3.5-1. Updated Greenhouse Gas Emissions Inventories

Emissions Inventory	CO_2e (metric tons)
2010 IPCC Global GHG Emissions Inventory	52,000,000,000
2015 EPA National GHG Emissions Inventory	6,587,000,000
2015 ARB State GHG Emissions Inventory	440,360,000
2011 SFBAAB GHG Emissions Inventory	86,600,000

Sources:
Intergovernmental Panel on Climate Change 2014; U.S. Environmental Protection Agency 2017; California Air Resources Board 2017a; Bay Area Air Quality Management District 2015
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas

3.5.3 Impacts and Mitigation

This section describes the change in Project impacts on greenhouse gas and energy that would occur with the Project Change. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant. Unless otherwise noted, the analysis assumes that applicable mitigation measures from the 2015 Certified EIR would be implemented for the Project Change; these measures are listed below under each respective impact heading. If new mitigation measures are needed to reduce new impacts that would result from the Project Change, those measures are also listed below.

This SEIR analysis evaluates the change in Project impacts with the Project Change, and, if applicable, changes in circumstances or new information that was not available at the time the 2015 Certified EIR was prepared. The analysis does not reevaluate the impacts of the Project that were already disclosed in the 2015 Certified EIR and are not altered due to the Project Change. Based on the change in the Project impact due to the Project Change, a determination is made as to whether there would be changes to the impact significance determinations for the Project in the 2015 Certified EIR.

3.5.3.1 Significance Criteria

Greenhouse Gases

The State CEQA Guidelines Appendix G (14 CCR 15000 et seq.) has identified significance criteria to be considered for determining whether a project could have significant impacts on existing GHG emissions.

An impact would be considered significant if construction or operation of the Project would have any of the following consequences.

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

A number of lead agencies throughout the state have drafted and/or adopted various threshold approaches and guidelines for analyzing 2020 operational GHG emissions in CEQA documents consistent with AB 32 reduction requirements. These different thresholds include compliance with a qualified GHG reduction strategy (i.e., a CAP), performance-based reductions[1], numeric bright-line thresholds, and efficiency-based thresholds. The recent California Supreme Court's Newhall Ranch decision confirmed that there are multiple potential pathways for evaluating GHG emissions consistent with CEQA, depending on the circumstances of a given project. (*Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4th 204, known as the Newhall Ranch decision). While the decision did not foreclose other methodologies that may be used by lead agencies, it affirmed that "thresholds only define the level at which an environmental effect 'normally' is considered significant; they do not relieve the lead agency of its duty to determine the significance of an impact independently." Additionally, the decision also identified the need to analyze both near-term and post-2020 emissions, as applicable, stating that an "EIR taking a goal-consistency approach to CEQA significance may in the near future need to consider the project's effects on meeting longer term emissions reduction targets."

As the Project is located within the SFBAAB, which is under jurisdiction of BAAQMD, GHG emissions are evaluated using guidance and thresholds outlined in BAAQMD's CEQA Guidelines (Bay Area Air Quality Management District 2017a). However, it should be noted that these thresholds currently only account for consistency with GHG reduction targets for 2020 established in AB 32, while the future buildout year for the Project is 2025. As such, GHG emissions will be evaluated by modifying the existing BAAQMD GHG threshold for 2020 (per AB 32) to the 2025 period, taking into account the GHG reduction targets in SB 32 for 2030, as discussed below.

Threshold Criteria

BAAQMD's CEQA Guidelines do not identify a GHG emission threshold for the evaluation of plan- or project-level impacts from construction-related emissions. Instead, BAAQMD recommends that GHG emissions from construction be quantified and disclosed, and that a determination regarding the significance of these GHG emissions be made with respect to whether a project is consistent with the AB 32 GHG emission reduction goals. BAAQMD further recommends incorporation of BMPs to reduce GHG emissions during construction, as feasible and applicable.

With respect to operational GHG emissions, BAAQMD's guidelines establish two potential analysis criteria for plan-level projects (e.g., general plans, community plans, specific plans, regional plans, congestion management plans, etc.) relative to 2020:

- Compliance with a Qualified GHG Reduction Strategy, with a goal consistent with AB 32,[2] or

[1] Performance-based reductions include the "percent below Business as Usual" threshold approach, which has been used widely in the past. This approach was the subject of the Newhall Ranch case and presently is subject to uncertainty until the issues raised in the Supreme Court ruling are resolved.

[2] As discussed above, the District is not subject to the City of San Mateo's land use authority, so the City's Climate Action Plan does not apply to the Project Change.

- Compliance with a GHG efficiency threshold of either 6.6 metric tons (MT) CO_2e per service population (SP) (employees + population) for general plans, or a GHG efficiency threshold of 4.6 MT CO_2e per SP for all other plans (e.g., specific plan, congestion management plans, etc.).

BAAQMD thresholds are based on the AB 32 GHG reduction goals and a "gap analysis" that attributes an appropriate share of GHG emissions reductions to new land use development projects in BAAQMD's jurisdiction. The efficiency threshold (4.6 MT of CO_2e per service population) was calculated by dividing the AB 32 GHG reduction target for land use development emissions in California by the estimated 2020 population and employment level. Thus BAAQMD thresholds are tied directly to AB 32 and statewide emissions reduction goals for 2020 (Bay Area Air Quality Management District 2017b). However, given that the Project buildout year would occur beyond 2020, threshold criteria that are tied to the State's post-2020 reduction goals should be used to evaluate the Modified Project's GHG emissions. As discussed previously, long-term goals for 2030 have been statutorily established in SB 32. SB 32 extends the 2020 statewide target and requires a 40 percent reduction below 1990 levels by 2030. The 2030 Scoping Plan includes per capita reduction targets consistent with SB 32, which are 6 metric tons CO_2e per capita by 2030 and 2 metric tons CO_2e per capita by 2050 (California Air Resources Board 2017b). Although not legislatively adopted, EO S-3-05 outlines a long-range target of 80 percent below 1990 emissions levels by 2050.

The Association of Environmental Professionals (AEP) Climate Change Committee recommended in a 2016 white paper that CEQA analyses for projects with post-2020 development, such as the Modified Project, not only "consider consistency with the 2020/AB 32 based framework, but also analyze the consequences of post-2020 GHG emissions in terms of their impacts on the reduction trajectory from 2020 toward 2050." AEP further recommends that the "significance determination…should be based on consistency with "substantial progress" along a post-2020 trajectory." The 2016 AEP white paper is advisory only and is not binding guidance or an adopted set of CEQA thresholds. However, the CEQA Guidelines do authorize a lead agency to consider thresholds of significance recommended by experts such as members of the AEP Climate Change Committee, which consists of leaders of climate action planning practices from consulting firms and agencies that have lead many of the local GHG reduction planning efforts across California.

While BAAQMD's current efficiency threshold only accounts for consistency with AB 32's established GHG reduction targets for 2020, efficiency-based thresholds can also be derived to assess a project's consistency with the State's post-2020 reduction targets. Efficiency-based thresholds consist of identifying a GHG efficiency level needed for new development that would support statewide reduction planning for future milestones. Projects that attain the efficiency target, with or without mitigation, would result in less-than-significant GHG emissions. While the Newhall Ranch decision did not specifically recommend the efficiency-based approach, the ruling did note that numerical threshold approaches may be appropriate for determining significance of GHG emissions and to emphasize the consideration of GHG efficiency. Efficiency-based thresholds are typically calculated by dividing emissions associated with residential and commercial uses (also termed the *land use sector* in the AB 32 Scoping Plan) within the state by the sum of jobs and residents within the same geography. The sum of jobs and residents is called the *service population*, and a project's service population is defined as the people that work and live within the project site. This methodology has been primarily targeted to residential, commercial, and mixed use projects with GHG emissions resulting from a mixture of building energy, transportation, solid waste, and other emissions similar in proportion to that of the overall land use sector and that occur in a roughly linear relationship to the number of employees and/or residential population..

For the purpose of this analysis, GHG efficiency thresholds based on the emissions reduction targets under AB 32, SB 32, and EO S-3-05 that are applicable to the geographical area under the jurisdiction of the BAAQMD, which includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, and portions of Solano and Sonoma counties, are first established. To establish these metrics, the 1990 GHG emissions for BAAQMD's geographical jurisdiction were obtained from BAAQMD's 2011 GHG emissions inventory (Bay Area Air Quality Management District 2015) and used to calculate the mass emission targets based on the percent reduction targets for future statewide milestone years (i.e., 1990 emission levels by 2020; 40 percent below 1990 emission levels by 2030). Population and employment data obtained from ABAG's Projections 2013[3] (Association of Bay Area Governments 2013) for milestone years 2020 and 2030 are then used to calculate the efficiency metrics for those years, where the milestone mass emissions are divided by the corresponding milestone service population values. For projects that have buildout years that fall outside of milestone years 2020 and 2030, GHG efficiency thresholds can be estimated for those years by interpolating the mass emission targets between the appropriate milestone years and using service population obtained for those years from ABAG. As such, for Modified Project, the mass emission target for 2025 is calculated by interpolating a 20 percent reduction below 1990 emission levels between milestone years 2020 and 2030. Using service population values for 2025 obtained from ABAG, an applicable GHG efficiency threshold is then established to evaluate future GHG emission impacts from the Modified Project. The GHG efficiency thresholds calculated for milestone years 2020 and 2030 for BAAQMD's jurisdictional area along with the corresponding efficiency threshold for 2025 are shown in **Table 3.5-2**.

Table 3.5-2. Operational GHG Thresholds/Substantial Progress Efficiency Metrics for BAAQMD

Year	Land Use Sector GHG Emissions (Metric Tons CO_2e)[a]	Total Service Population[b]	Threshold/ Metric (MT CO_2e per service population)[c]	Threshold Basis
2020	48,400,000	10,073,327	4.8	GHG emissions reduced to 1990 levels by 2020 per AB 32
2025	38,720,000	10,442,686	3.7	GHG emissions reduced to 20 percent below 1990 levels (interpolated between 2020 and 2030)
2030	29,040,000	10,827,438	2.7	GHG emissions reduced to 40 percent below 1990 levels per SB 32

Source: Bay Area Air Quality Management District 2015; Association of Bay Area Governments 2013.

[a] The emissions from BAAQMD's 2011 GHG emissions inventory for 1990 is used to represent the GHG emissions in 2020, as the emission reduction target under AB 32 requires GHG emissions to be reduced to 1990 levels by 2020. The GHG emissions for all subsequent years in this table are calculated from the 1990 emission level value and factoring in the Statewide milestone reduction targets.

[b] The total service population for each year analyzed in the table is calculated by summing the residential and employment population data obtained from ABAG's Projection 2013.

[c] The GHG efficiency threshold is calculated by dividing the total GHG emissions by the total service population.

[3] Projections 2013 is the most recent in ABAG's series of statistical compendia on demographic, economic, and land use changes in the San Francisco Bay Area.

In summary, because the buildout year for the Modified Project occurs beyond 2020, and consistent with the general scientific understanding that there will be a need for deeper reductions in GHG emissions in the post-2020 period, this SEIR evaluates the Modified Project's operational GHG emissions using the metrics listed below:

- 2025 – 3.7 MT CO_2e per service population.
    - Modified Project operational emissions at interim buildout year 2025 are compared to a "substantial progress" efficiency indicator of 3.7 MT CO2e per service population that is based on the 2030 reduction target established by SB 32. Emissions in excess of this "substantial progress" efficiency indicator could conflict with the trajectory of long-term GHG reduction goals.

Through the use of this efficiency threshold, the analysis of substantial progress through 2025 on a trajectory toward 2050 reduction targets is used in this SEIR to disclose consistency of the Modified Project with the long-term reductions called for in EO-S-3-05.

Energy

Based on State CEQA Guidelines Appendix F, environmental impacts may include those listed below.

- 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.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak- and base-period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

The State CEQA Guidelines recommend that the discussion of applicable energy impacts focus on whether the project would result in the wasteful, inefficient, or unnecessary consumption of energy, as this may constitute an unavoidable adverse effect on energy resources. Efficiency projects that incorporate conservation measures to avoid wasteful energy usage facilitate long-term energy planning and avoid the need for unplanned or additional energy capacity. Accordingly, based on the criteria outlined in the State CEQA Guidelines Appendix F, the Project Change would cause significant impacts related to energy if it would result lead to a wasteful, inefficient, and unnecessary usage of direct or indirect energy. Energy legislation, policies, and standards adopted by California and local governments have been enacted and promulgated for the purpose of reducing energy consumption and improving efficiency (i.e., reducing wasteful and inefficient use of energy). Therefore, for the purposes of this analysis, *wasteful* and *inefficient* are defined as circumstances in which the Project Change would conflict with applicable state or local energy legislation, policies, and standards. Accordingly, if the Project Change conflicts with legislation, policies, or standards designed to avoid wasteful and inefficient energy usage, it would result in a significant impact related to energy resources and conservation.

3.5.3.2 Methods

Impacts of the Project on air quality and criteria pollutants emissions from construction and operations were quantified using the same general methodology as was used for the analysis in the Certified EIR. The industry-standard land use emissions model (CalEEMod) was used for the Certified EIR analysis (CalEEMod version 2013.2.2) and is used in this supplemental analysis (CalEEMod version 2016.3.2). This section describes the key methods used to quantify emissions and estimate potential impacts for the Project Change. Assumptions used in the air quality analysis can be found in **Appendix B,** *Air Quality and Greenhouse Gas Data and Calculations.*

Construction

Construction of the Project Change would generate short-term emissions of CO_2, CH_4, and N_2O. Emissions would originate from mobile and stationary construction equipment exhaust, employee, and haul truck vehicle exhaust. Emissions generated by these sources were estimated using the current version of CalEEMod emissions inventory model, and construction information provided by the Project Change applicant. Construction equipment data, including equipment type and number of equipment pieces, were provided by the Project Change applicant. Construction details that are not available at the preliminary level of design, such as equipment horsepower and load factors, were generated by default values within CalEEMod

Project Change construction is expected to consist of a demolition phase (to remove Building 20 and the lath house and greenhouse), a concrete recycling and hauling phase (to process and remove demolition materials from the Project Change Site), a tree removal phase, and several phases to construct the parking lot (grading, utility installation, concrete installation, paving, and landscaping). Construction is expected to occur between fall 2018 and mid 2019 (refer to **Appendix B** for more detail on the construction phases for the Project Change).

Operation

CalEEMod quantifies operational GHG emissions for area sources (such as landscaping equipment), energy sources (such as lighting electricity), and water and waste emissions based on the size and type of a project's land use. Emissions from landscaping equipment and lighting at the parking lot were thus estimated using the size of the proposed parking lot at the Project Change Site and the default assumptions within CalEEMod. Emissions from water and waste were also quantified in CalEEMod but are anticipated to be a minor component of operational emissions given the small size of the Project Change Site and low-intensity of GHG emissions associated with water and waste activities.

Energy

The energy analysis for the Project Change evaluates the same general sources of energy consumption as the Project. The energy sources evaluated for the Project Change include:

- Short-term construction—gasoline and diesel consumed by vehicles and off-road construction equipment.
- Operational power —electricity consumed at the parking lot for lighting purposes.

Construction-related energy use (i.e., fuel consumption) was calculated by converting GHG emissions predicted by CalEEMod using the rate of CO_2 emissions emitted per gallon of combusted

diesel (10.21 kilograms/gallon) (Climate Registry 2017). The estimated fuel consumption was converted to BTU assuming an energy intensity of 137,452 per gallon of diesel (U.S. Energy Information Administration 2017). Similarly, energy from combusted gasoline was calculated by converting construction gasoline-related GHG emissions to gallons using a rate of 8.78 kilograms per gallon (Climate Registry 2017). An energy intensity of 120,476 BTU per gallon of gasoline was used to calculate the energy value associated with the amount of fuel (U.S. Energy Information Administration 2017).

Operational electricity consumption was drawn from the CalEEMod modeling performed to support the GHG analysis. Electricity consumption is provided in units of kilowatt-hours (kWh) from CalEEMod and were converted to BTU assuming the standard energy intensity of 3,412 BTU per kWh.

3.5.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.5.3.1, *Significance Criteria*.

Impact CSM-GHG-1: Generate GHG emissions during Project construction (less than significant with mitigation)

Demolition, debris recycling and hauling, and parking lot construction, including grading, paving and landscaping activities, would require construction activity that would generate GHG emissions. Construction of the Project Change would generate GHGs through the use of heavy-duty construction equipment, construction worker vehicle trips, and truck hauling trips during the aforementioned activities. Construction would occur for approximately six months across two calendar years. Construction-related GHG emissions have been quantified for each year in which emissions would occur for the Project Change construction and are shown in **Table 3.5-3**.

Table 3.5-3. Project Change Construction Greenhouse Emissions (metric tons per year)

Construction Year	CO_2e
2018	69
2019	88
Total Emissions[a]	*157*

Note: CO_2e means equivalent CO_2 emissions, which means it includes other greenhouse gas species (CH_4 and N_2O) in its calculations.

[a] Includes CH_4 and N_2O emissions.

The emissions generated during construction of the Project Change would act cumulatively with the Project emissions disclosed in the Certified EIR, contributing to greenhouse gas impacts. Emissions from the Project Change would overlap with emissions from the Project in two years, 2018 and 2019. GHG emissions in all other years of construction of the Project would remain unchanged by the Project Change. To comprehensively evaluate the impact of the modified Project, the Project Change emissions are summed with the Project emissions from the Certified EIR during the years of overlap (2018 and 2019) and for the entire construction period, as shown in **Table 3.5-4.**

Table 3.5-4. Modified Project Construction Greenhouse Emissions (metric tons per year)

Construction Year	CO_2e
2016	112
2017	5,734
2018[a]	8,576
2019[a]	5,620
2020	2,854
2021	1,778
2022	2,677
2023	2,317
2024	439
Total Emissions[b]	*30,107*

Note: CO_2e means equivalent CO_2 emissions, which means it includes other greenhouse gas species (CH_4 and N_2O) in its calculations.

[a] Includes construction emissions from Project Change.

[b] Includes CH_4 and N_2O emissions.

As shown in the table above, the Project Change would result in 157 metric tons more than the Project, which is an increase of less than 1%. The total GHG emissions added to the atmosphere from the Modified Project is equivalent to adding 6,447 typical passenger vehicles to the road, which is 95 more than the number identified in the Certified EIR[4].

The BAAQMD's CEQA guidelines do not identify a GHG emissions threshold for construction-related emissions. The increase in emissions from the Project Change would result in slightly more GHG emissions than the Project (less than 1%), but, because of the magnitude of the additional emissions, the Project Change would not create any new impacts that did not occur under the Project. Modified Project construction would still be temporary, occurring for approximately eight years.

The construction features discussed in Chapter 2 of the Certified EIR, such as recycling at least 50% of the demolition material on-site, and the environmental commitment EC-AIR-1, such as limits on idling times and vehicle speeds, would apply to the Project Change as well. Additionally, the BAAQMD's best management practices, which would reduce the construction emissions of the Modified Project further below the values shown in **Table 3.5-4**, would be implemented through **Mitigation Measure CSM-GHG-1** from the Certified EIR.

[4] The Certified EIR determined that the Project would result in 29,666 MT CO_2e, equivalent to adding 6,312 passenger vehicles to the road. Because of updated estimates to the EPA's equivalencies calculator, the current number of cars equivalent to 29,666 MT CO_2e is 6,352. Thus, the difference between the Project Change (6,447) and the Project (6,352) is 95.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-GHG-1: Where feasible, implement BAAQMD's best management practices for GHG emissions at College of San Mateo

All construction contractors will implement the following BAAQMD-recommended best management practices (BMPs) to reduce GHG emissions, as applicable.

- Use alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment in at least 15% of the fleet.
- Use at least 10% local building materials.
- Recycle at least 50% of construction waste or demolition materials.

Mitigation Measure CSM-AQE-5: Implement BAAQMD basic construction mitigation measures to reduce construction-related PM10 and PM2.5 dust at College of San Mateo

The District will require all construction contractors to implement the basic construction mitigation measures recommended by BAAQMD to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures. Additional measures may be identified by BAAQMD or the contractor as appropriate.

- All exposed surfaces affected by construction (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day, or as needed during the dry season(s) (unless limited by state or local drought response requirements or if there is a rain event).
- All haul trucks transporting soil, sand, or other loose material off site will be covered.
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads will be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.
- A publicly visible sign will be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. BAAQMD's phone number will also be visible to ensure compliance with applicable regulations.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-GHG-1

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation related to greenhouse gas emissions during construction. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with

mitigation related to construction greenhouse gas emissions. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-GHG-1**.

Impact CSM-GHG-2: Generate GHG emissions during Project operation (less than significant)

The Project Change would not result in a substantial increase in sources of operational greenhouse gas emissions. A review of the parking demand conditions at the Project Change Site by the Project traffic engineers has concluded that the existing parking supply at the CSM Campus is considered to be sufficient, and the addition of a larger parking lot from implementation of the Project Change would not result in increased vehicle trips (Hexagon 2018). Refer to Appendix D of this SEIR. Thus, the Project Change would not increase operational mobile source emissions.

Landscaping equipment would be occasionally present to maintain the landscaped areas of the parking lot, and electricity would be required to power the parking lot's lighting. There would also be minor emissions associated with any water consumed or waste produced at the parking lot and landscaped area. Total operational emissions were quantified in CalEEMod to account for these area, energy, waste, and water sources. The implementation of the Project Change would result in the net removal of 127 trees (151 removals and 24 plantings), which would result in an annual increase in GHG emissions due to the loss of carbon sequestration capacity from these trees. The change in tree-sequestration at the site was also quantified in CalEEMod. As shown in **Table 3.5-5** below, the Project Change would result in an increase in operational emissions relative to the Project operational emissions of approximately 12%. The total net operational emissions of the modified Project would remain negative (i.e. beneficial), however, because the emissions from the existing conditions are subtracted from Project emissions to evaluate the net impact of the Project.

Table 3.5-5. College of San Mateo Total Unmitigated Operational Emissions (metric tons per year)

Category	CO_2	CH_4	N_20	CO_2e
Project Change Emissions	*98*	*< 1*	*< 1*	*98*
Area Sources (landscaping equipment)	< 1	< 1	< 1	< 1
Energy Sources (parking lot lighting)	7	< 1	< 1	< 1
Water Sources (water consumption at parking lot and landscaped area)	< 1	< 1	< 1	< 1
Waste Sources (waste produced at parking lot and landscaped area)	< 1	< 1	< 1	< 1
Tree Removal (effect of removing a net of 127 trees)	90	0	0	90
Prior Project Emissions (from Certified EIR)	*-800*	*< 1*	*< 1*	*-794*
Modified Project Emissions (Project Change + Project)	**-702**	**< 1**	**< 1**	**-696**
2025 Threshold	*3.7 MTC02e/Service Population*			
2025 Threshold Exceeded?	*No (Modified Project would reduce emissions*			

CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-GHG-2.**

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-GHG-2

The 2015 Certified EIR determined that the Project would have a less than significant impact on operational greenhouse gas emissions. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on operational greenhouse gas emissions. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-GHG-2**.

Impact CSM-GHG-3: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (less than significant)

Consistency with 2008 AB 32 Scoping Plan and 2014 First Update

The Certified EIR concluded that the Project would not conflict with the AB 32 Scoping Plan, because its long-term operational emissions would be below existing emissions levels. As discussed in **Impacts CSM-GHG-1** and **CSM-GHG-2**, the Modified Project would result in 12% more GHG emissions than the Project during construction, but would still result in a net GHG emissions benefit during operations relative to existing conditions. Therefore, similar to the Project, the long-term effect of the Modified Project would be a net benefit to GHG impacts on an annual basis relative to the existing conditions. Operational GHG emissions of the parking lot would be limited to lighting, occasional landscaping equipment usage, and minor water consumption and waste generation. The loss of tree-sequestration capacity at the Project Change Site would result in GHG emissions increases relative to existing conditions, however. Additionally, the temporary increase in construction emissions would be lessened by the use of alternatively fueled vehicles and other best management practices recommended by the BAAQMD. Many of the measures identified in the Scoping Plan are not applicable to the Project Change given the limited reduction opportunities associated with a non-trip generating parking lot. However, the Modified Project would not be considered to conflict with any of the strategies or goals identified in the ARB's 2008 Scoping Plan or 2014 First Update.

Consistency with 2017 Scoping Plan

The purpose and mission of the updated Scoping Plan is generally the same as the original Scoping Plan but with an updated GHG reduction target consistent with the 2030 SB 32 goal. The Project Change would be consistent with the 2017 Scoping Plan's policy pertaining to SB 350. The electricity sector statewide would continue to increase its renewable portfolio until reaching the 50% goal specified under SB 350. Any electricity consumed by lighting at the parking lot would thus progressively get less carbon intensive and result in a further benefit with respect to GHG impacts. While the other policies of the 2017 Scoping Plan may not be directly applicable to the Project Change, the Project Change would not conflict with the goals of those policies. Consequently, the Project Change would not be considered to conflict with the 2017 Scoping Plan.

Consistency with SB 32 and Executive Order EO S-3-05

As discussed above, SB 32 adopted a GHG reduction target of 40 percent below 1990 levels by 2030, and EO S-3-05 established a long-term goal of reducing statewide GHG emissions to 80 percent below 1990 levels by 2050. Achieving these long-term GHG reduction policies will require systemic changes in how energy is produced and used.

The systemic changes that will be required to achieve the GHG reduction goals of SB 32 and EO S-3-05, if legislatively adopted, will require significant policy, technical, and economic solutions. Decarbonization of the transportation fuel supply will require electric and plug-in hybrid electric vehicles to make up the vast majority of light-duty vehicles. Some changes, such as the use of alternative fuels (e.g., biofuels) to replace petroleum for aviation, cannot be accomplished without action by the federal government. Further, achieving the 2050 GHG reduction goals will require California to dramatically increase the amount of electricity that is generated by renewable generation sources and, correspondingly, advance significantly the deployment of energy storage technology and smart-grid strategies, such as price-responsive demand and the smart charging of vehicles. This would entail a significant redesign of California's electricity system, which can only be accomplished through state action.

In evaluating the Project Change's emissions for consistency with SB 32 and EO S-3-05, it is important to note that many of these broad-scale shifts in how energy is produced and used are unknown at this time, and ultimately are outside of the scope of the Project Change. Consequently, the extent to which the Project Change's emissions and resulting impacts would be mitigated through implementation of such state-wide (or nationwide) changes is not known. Furthermore, implementation of such additional policy and regulatory changes is in the jurisdiction of State-level agencies (e.g., ARB) and federal-level agencies, not the District.

As discussed under **Impact CSM-GHG-2**, because the Modified Project would result in net negative GHG emissions during operations relative to existing conditions, it would be consistent with the statewide GHG emissions reduction trajectory for 2030 under SB 32. Thus, the Modified Project would be consistent with the goals in SB 32 and EO S-3-05, and this impact would be less than significant.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-GHG-3.**

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-GHG-3

The 2015 Certified EIR determined that the Project would have a less than significant impact related to consistency with adopted plans for the reduction of greenhouse gas emissions. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact related to adopted plans for the reduction of greenhouse gas emissions. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-GHG-3.**

Impact CSM-GHG-4: Exacerbate risks to property and persons to otherwise avoidable physical harm as a result of inevitable climate change (less than significant)

As discussed in the Certified EIR, the CSM campus, including the Project Change site, would not be subject to inundations from sea level rise, based on maps developed by the National Oceanic and Atmospheric Administration (NOAA) and thus would not exacerbate flooding relative to sea level rise. The Certified EIR also discussed the effect of increased temperatures and heat stress days on the Project, and determined that the Project would not exacerbate these issues. The Project Change would also not substantially worsen the effect of heat stress days on any property or persons, because only a single parking lot would be constructed. Parking lots are transitory uses where people typically spend minimal time; thus, this would not be a land use that would worsen the effect of heat stress days.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-GHG-4.**

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-GHG-4

The 2015 Certified EIR determined that the Project would have a less than significant impact related to exacerbation of climate change impacts. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact related to exacerbation of climate change impacts. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-GHG-4.**

Impact CSM-GHG-5: Lead to a wasteful, inefficient, and unnecessary usage of energy (less than significant)

Construction

Project Change construction would consume gasoline and diesel through operation of heavy-duty construction equipment and vehicles. Consistent with the Certified EIR, materials manufacturing, which would also consume energy, is not evaluated, because such an analysis is considered speculative and beyond the scope of project-level environmental analyses. This analysis focuses on energy associated with physical construction of the Project Change (i.e., fuel consumed by heavy-duty equipment and vehicles).

Based on the GHG emissions quantified in **Table 3.5-4** and the rate of CO_2 emitted per gallon of fuel consumed, energy use associated with Project Change construction was calculated and estimated to result in the one-time consumption of 1,183 million BTU (MMTBU). This increase in energy would represent a one-time increase of 0.3% relative to the Project.

The Project Change would involve construction activities typical of similar development within the region. Construction of parking lot would not be expected to require an excessive amount of energy consumption during, as may occur with larger projects, like new power plants, dams, or large mixed-use development projects. Because construction activity would occur for a relatively short-term (approximately seven months) and would cease once construction is complete, any energy required

would represent a relatively short demand on local and regional fuel supplies that would be easily accommodated. Additionally, the increase in energy relative to the Project (less than 1% increase) would be relatively insubstantial and would not cause the Modified Project to be considered wasteful, inefficient, or unnecessary. Therefore, construction activities associated with the Project Change would not result in a wasteful, inefficient, and unnecessary usage of direct or indirect energy.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-GHG-5.**

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Operation

As discussed previously, the Project Change not would generate any additional vehicle trips or result in the corresponding energy associated with vehicle fuel consumption (Hexagon 2018). Operation of the Project Change would result in the consumption of electricity for lighting purposes, and any water used at the landscaped areas would also require electricity to supply to the Project Change site. Total annual electricity consumption associated with the Project Change would be 95 MMBTU, which is the total energy required to provide lighting and water. As shown in Table 3.2-29 of the Certified EIR, the operation of the Project would result in 48,204 million BTU per year, which includes energy reductions that would be achieved through the use of a cogeneration plant, solar photovoltaic panels, and reductions from increased stringency of the Title 24 standards.

Thus, the additional energy generated by the Project Change would result in an increase of 0.2% per year relative to the Project. The Certified EIR determined that the Project would not result in a wasteful usage of energy, because it would be consistent with state and local energy policies. The Project Change would also be consistent with state and local energy policies, because any electric utility infrastructure would be consistent with the infrastructure to be used for the Project. Additionally, the small increase in annual energy consumption (0.2%) would be primarily consumed for lighting purposes at the parking lot, which would be required for safety purposes and not considered wasteful or unnecessary.

Conclusions for Impact CSM-GHG-5

The 2015 Certified EIR determined that the Project would have a less than significant impact on energy. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on energy. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-GHG-5**.

3.6 Hydrology and Water Quality

This section discloses and analyzes the potential change in Project impacts on hydrology and water quality that would result from implementing the Project Change.

3.6.1 Regulatory Setting

The regulatory setting for hydrology and water quality is described on pages 3.8-1 to 3.8-9 of the 2015 Certified EIR. These regulations include the federal Clean Water Act (CWA), the California Water Code's Porter Cologne Water Quality Control Act (Porter Cologne Act), and the San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). The District adopted a comprehensive Stormwater Management Program (SWMP) with the goal is to reduce the discharge of pollutants and to identify activities including Best Management Practices (BMPs) or structural improvements that help reduce the quantity and improve the quality of the storm water runoff. The District maintains its SWMP with the aid of the District's Stormwater Working Group and the College of San Mateo Sustainability Plan. Together, these work specifically to address the stormwater quality and drainage needs of the campus.

Section 303(d) of the CWA establishes total maximum daily loads (TMDLs) to guide the application of state water quality standards. Beneficial uses for all water body segments are designated in Basin Plans which set criteria necessary to protect these uses. Since the land disturbance would be greater than 1 acre, a National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit is required. The Construction General Permit requires the development and implementation of a storm water pollution prevention plan (SWPPP), and would list BMPs that will be used to protect stormwater runoff and document the placement and maintenance of those BMPs. Stormwater discharges would be regulated under the NPDES General Permit for Municipal Separate Storm Sewer Systems (MS4) and the District's SWMP. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location of where the 2015 Certified EIR is available for public review.

There are no new regulations related to hydrology and water quality beyond those described in the 2015 Certified EIR. However, the 2012 California Integrated Report with 303(d) listings was revised in 2017. For the current listing cycles, the State Water Board has combined its 303(d) List and the 305(b) Report into the 2014 and 2016 California Integrated Report. In addition, the State Water Board's Phase II Small MS4 Permit (Order No. 2013-0001 DWQ) was amended (Water Quality Orders 2015-0133-EXEC and 2016-0069-EXEC) to reflect changes or removal of regulated small MS4 designations. The State Water Board is considering amending the Small MS4 Permit to incorporate new or revised TMDL implementation language. No other changes have been made to the regulations summarized in the 2015 Certified EIR that would affect the environmental analysis of the Project Change.

3.6.2 Environmental Setting

3.6.2.1 College of San Mateo

The environmental setting for hydrology and water quality at CSM is described on pages 3.8-12 to 3.8-19 of the 2015 Certified EIS. This discussion describes the surface hydrology, groundwater hydrology, water quality, and flood setting. As discussed, CSM is located on the border of the Marina Lagoon and San Mateo Creek sub-watersheds of the larger South Bay Watershed, which both ultimately flow to San Francisco Bay. Although no surface waters are present within the campus, Polhemus Creek is located approximately 0.4 mile west of CSM and is the main tributary to San Mateo Creek.

CSM is located within the San Mateo Plain Subbasin of the Santa Clara Valley Groundwater Basin. Natural recharge in Subbasin occurs by infiltration of water from streams within the drainage basin and by percolation of precipitation. CSM is located on a hilltop approximately 662 feet above mean sea level (msl) and is not located within a FEMA designated 100-year flood hazard area.

In a developed urban environment, such as is present on the campus, water quality is affected primarily by discharges from both point and nonpoint sources, including winter storms, overland flow, construction sites, exposed soil, roofs, parking lots, and streets. Water quality in the Project vicinity is directly affected by stormwater runoff from adjacent streets and properties delivering fertilizers, pesticides, metals, hydrocarbons, and other pollutants. In the lower portion of San Mateo Creek, water quality may also be affected by sediments entering the creek. Polhemus Creek is not listed as a 303(d)-impaired water body, but the Lower San Mateo Creek and Laurel Creek are listed for toxicity and diazinon, respectively (State Water Board 2017). Beneficial uses and 303(d) listed impairments for water bodies within the vicinity of CSM are shown in table 3.6-1 and 3.6-2, respectively.

This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIS is available for public review.

The setting with regard to hydrology and water quality at CSM has not changed substantially since the Certified Plan was prepared.

Table 3.6-1. Designated Beneficial Uses for Surface Water Bodies within the Vicinity of College of San Mateo

Waterbody	Designated Beneficial Uses
San Mateo Creek	COLD (cold freshwater habitat); MIGR (fish migration); SPWN (fish spawning); WARM (warm freshwater habitat); WILD (wildlife habitat); REC-1 (water contact recreation); REC-2 (noncontact water recreation)
Lower San Francisco Bay	IND (Industrial service supply), COMM (commercial and sport fishing), SHELL (Shellfish harvesting), EST (Estuarine habitat), MIGR (Fish migration), RARE (Preservation of rare and endangered species), SPWN (Fish spawning), WILD (Wildlife habitat), REC-1 (Water contact recreation), REC-2 (Noncontact water contact recreation), NAV (navigation)

Source: San Francisco Bay Regional Water Quality Control Board. 2017. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).* Last updated: May 2017. Available: http://www.waterboards.ca.gov/rwqcb2/basin_planning.shtml. Accessed: December 21, 2017.

Table 3.6-2. Overview of Water Quality Impairments in Project Vicinity

Waterbody	Listed Impairments Per 2014/2016 303(d) List	Potential Sources	EPA TMDL Completion
Laurel Creek	Diazinon[1]	Source Unknown	
Lower San Mateo Creek	Toxicity[2]	Source Unknown	2029
Lower San Francisco Bay	DDT	Source Unknown	2013
	Dieldrin	Source Unknown	2013
	Dioxin compounds (including 2,3,7,8-TCDD)	Source Unknown	2019
	Furan Compounds	Source Unknown	2019
	Invasive Species	Source Unknown	2019
	Mercury[3]	Source Unknown	
	PCBs and dioxin-like PCBs[4]	Source Unknown	
	Trash	Source Unknown	2021

DDT = Dichlorodiphenyltrichloroethane
PCBs = Polychlorinated biphenyls
1 TMDL Approved by USEPA on May 16, 2007
2 Water and sediment toxicity are combined, however the toxicity in Lower San Mateo Creek is for the sediment component.
3 TMDL Approved by USEPA on February 12, 2008
4 TMDL Approved by USEPA on March 29, 2010
Source: State Water Resources Control Board. 2016. Final 2014/2016 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report). Available: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml. Accessed: December 21, 2017.

3.6.2.2 Project Change Site

Storm water runoff throughout SMC is conveyed through District-owned storm sewer, open channels and drainage swales located on campus. Topography surrounding CSM is relatively hilly. Surrounding slopes drain stormwater flows to San Mateo Creek, Polhemus Creek, or to the stormwater drainage system connected to the freeway. The College-owned storm sewers discharge into City owned storm sewers, open channels and drainage swales and ultimately discharge into San Francisco Bay.

3.6.3 Impacts and Mitigation

This section describes the change in Project impacts on hydrology and water quality that would occur with the Project Change. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant. Unless otherwise noted, the analysis assumes that applicable mitigation measures from the 2015 Certified EIS would be implemented for the Project Change; these measures are listed below under each respective impact heading. If new mitigation measures are needed to reduce new impacts that would result from the Project Change, those measures are also listed below.

This SEIR analysis evaluates the change in Project impacts with the Project Change, and, if applicable, changes in circumstances or new information that was not available at the time the 2015

Certified EIR was prepared. The analysis does not reevaluate the impacts of the Project that were already disclosed in the 2015 Certified EIR and are not altered due to the Project Change. Based on the change in the Project impact due to the Project Change, a determination is made as to whether there would be changes to the impact significance determinations for the Project in the 2015 Certified EIR.

3.6.3.1 Significance Criteria

The State CEQA Guidelines Appendix G (14 California Code of Regulations 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on hydrology and water quality.

An impact would be considered significant if construction or operation of the Project would do any of the following.

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted).
- 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 that would result in substantial erosion or siltation onsite or offsite.
- 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 that would result in flooding onsite or offsite.
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Otherwise substantially degrade water quality.
- 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.
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
- Contribute to inundation by seiche, tsunami, or mudflow.

3.6.3.2 Methods

This SEIR applies the same methodology used in the 2015 Certified EIR for analyzing Project Change impacts to hydrology and water quality. Specifically, all Project elements were analyzed by comparing existing conditions, as described in Section 3.8.2, *Environmental Setting*, to conditions during construction and/or operations of the Project Change. The analysis focuses on issues related to surface hydrology, groundwater supply, water quality, and flood hazards. The key construction-related impacts were identified and evaluated qualitatively based on the physical characteristics of the three campuses and the magnitude, intensity, location, and duration of activities.

Surface Water Hydrology: The surface water hydrology impact analysis considered potential changes in the physical characteristics of water bodies, impervious surfaces, and drainage patterns throughout the Project area as a result of Project implementation.

Groundwater Hydrology: Impacts on groundwater supply and recharge were assessed by comparing groundwater use, as well as recharge capabilities with the Project. Recharge is determined by the ability of water to infiltrate into the soil.

Water Quality: Impacts of the Project on surface water and groundwater quality were analyzed by comparing Project versus existing water quality conditions. Potential project-related sources of water contaminants generated or inadvertently released during Project construction and Project operation is considered, along with the potential for water quality objectives to be exceeded and beneficial uses to be compromised.

Flooding: The impact analysis for current flood risk was conducted using FEMA data and historical flood information to determine whether the three campuses overlap with existing current designated 100-year floodplains or has potential for ponding post-project.

3.6.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.6.3.1, *Significance Criteria*.

Impact CSM-HYD-1: Violate any water quality standards or waste discharge requirements and/or otherwise substantially degrade water quality (less than significant with mitigation)

Construction

Implementation of the Project Change would include construction activities, such as asphalt demolition, rough grading and excavation, paving, and landscaping. Land-disturbing activities in proximity to storm drain inlets or nearby surface waters, including approximately 86,435 square feet of the Project Change Site which will be graded, may result in a temporary increase in sediment loads in local waterways. Pollutants, such as nutrients, trace metals, and hydrocarbons attached to sediment, can be transported with sediment to downstream locations and degrade water quality. The delivery, handling, and storage of construction materials and wastes (e.g., concrete debris), as well as the use of heavy construction equipment, could also result in stormwater contamination, thereby affecting water quality. Construction activities may involve the use of chemicals and operation of heavy equipment, which could result in accidental spills of hazardous materials (e.g., fuel and oil) during construction activities. Such spills could enter the groundwater aquifer or nearby surface water bodies from runoff or storm drains.

All Project Change construction activities would be subject to existing regulatory requirements. Because the area of land disturbance for the proposed project would be more than 1 acre, coverage under the Construction General Permit would be required. As part of compliance with the Construction General Permit, standard erosion and sediment control measures and other housekeeping BMPs, such as vehicle and equipment maintenance, material delivery and storage, and solid waste management, would be identified in the SWPPP. These measures would be implemented during construction to reduce contamination and sedimentation in waterways. As a performance standard, BMPs included in the SWPPP would represent the best available technology that is economically achievable and the best conventional pollutant control technology to reduce

pollutants. Commonly practiced BMPs consist of a wide variety of measures that can be implemented to reduce pollutants in stormwater and other nonpoint-source runoff. Other measures in the SWPPP would include a range of stormwater control BMPs (e.g., installing silt fences, staked straw wattles, or geofabric to prevent silt runoff to storm drains or waterways). The District will develop and implement a SWPPP specific to SMC Project Change improvements in compliance with the construction general permit. Permittees would also have to comply with the appropriate water quality objectives for the region.

Groundwater levels are unknown for the Project Change Site. However, the campus is situated on a hilltop approximately 662 feet above msl, at an elevation much higher than typical groundwater levels. Therefore, it is unlikely that shallow groundwater will be encountered. In the event that shallow groundwater exists and construction dewatering occurs, it would be conducted on a one-time or temporary basis and properly treated prior to discharge according to the San Francisco Bay Water Board dewatering requirements. In addition, the District would implement **Mitigation Measure CSM-HYD-1** from the 2015 Certified EIR to minimize the mobilization of sediment to storm drains and adjacent water bodies; CSM-HAZ-1 to minimize the potential for and effects from spills of hazardous, toxic, or petroleum substances during construction and demolition activities; and CSM-HAZ-2 to protect people from residual soil contamination. The District also requires construction contractors to implement BMPs described in the District's SWMP. All measures would be aligned with city and county general plan goals and policies related to water quality. With implementation of **Mitigation Measures CSM-HYD-1**, **CSM-HAZ-1**, and **CSM-HAZ-2**, and with compliance with the general construction permit and required measures in the District SWMP, potential water quality impacts from construction activities would be less than significant. Therefore, the proposed Project Change would not have a new or substantially more severe impact than disclosed in the 2015 Certified EIR.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-HYD-1: Implement erosion-control measures to protect water quality during construction at the College of San Mateo

The District will ensure the Project's construction specifications include the storm water pollution prevention plan (SWPPP) to minimize the mobilization of sediment to storm drains and adjacent water bodies. The SWPPP will include the following erosion- and sediment-control measures, based on standard industry measures and standard dust-reduction measures.

- Cover or apply nontoxic soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more) that could contribute sediment to waterways.
- Enclose and cover exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways.
- Contain soil and filter runoff from disturbed areas by berms, vegetated filters, silt fencing, straw wattle, plastic sheeting, catch basins, or other means necessary to prevent the escape of sediment from the disturbed area.
- Prohibit the placement of earth or organic material where it may be directly carried into a stream, marsh, slough, lagoon, or body of standing water.

- Prohibit the following types of materials from being rinsed or washed into streets, shoulder areas, or gutters: concrete, solvents and adhesives, fuels, dirt, gasoline, asphalt, and concrete saw slurry.
- Conduct dewatering activities according to the provisions of the SWPPP.

Prohibit placement of dewatered materials in local water bodies or in storm drains leading to such bodies without implementation of proper construction water quality control measures.

Mitigation Measure CSM-HAZ-1: Prepare and implement a spill prevention, control, and countermeasure program for construction activities at the College of San Mateo

The contractors will develop and implement a spill prevention, control, and countermeasure program (SPCCP) to minimize the potential for and effects from spills of hazardous, toxic, or petroleum substances during construction and demolition activities. The SPCCP will be completed before any construction or demolition activities begin. Implementation of this measure will comply with state and federal water quality regulations.

The District will review and approve the SPCCP before onset of construction activities. The District will routinely inspect the construction area to verify that the measures specified in the SPCCP are properly implemented and maintained. The District will notify its contractors immediately if there is a noncompliance issue and will require compliance.

The federal reportable spill quantity for petroleum products, as defined in 40 CFR 110, is any oil spill that includes any of the following.

- Violates applicable water quality standards.
- Causes a film or sheen on or discoloration of the water surface or adjoining shoreline.
- Causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.

If a spill is reportable, the contractors' superintendents will notify the District, and the District will take action to contact the appropriate safety and clean-up crews to ensure that the SPCCP is followed. A written description of reportable releases must be submitted to the San Francisco Bay Regional Water Quality Control Board. This submittal must contain a description of the spill, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases would be documented on a spill report form.

If a reportable spill has occurred and results determine that Project activities have adversely affected surface water or groundwater quality, a detailed analysis will be performed by a registered environmental assessor to identify the likely cause of contamination. This analysis will conform to American Society for Testing and Materials (ASTM) standards, and will include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, the District and its contractors will select and implement measures to control contamination, with a performance standard that groundwater quality must be returned to baseline conditions. These measures will be subject to approval by the District.

Mitigation Measure CSM-HAZ-2: Prepare a site safety plan (soil and groundwater management plan) to protect people from residual soil/groundwater contamination during construction at the College of San Mateo

The construction specifications will include this measure to protect construction workers and/or the public from known or previously undiscovered soil and groundwater contamination during construction activities. Prior to excavation, a Site Safety Plan (soil and groundwater management plan) will be prepared and, at a minimum, include the following.

- A requirement that all construction activities involving work in proximity to potentially contaminated soils and/or groundwater be undertaken in accordance with California Occupational Safety and Health Administration (Cal OSHA) standards, contained in Title 8 of the CCR.
- Soil and groundwater mitigation and control specifications for construction activities, including health and safety provisions for monitoring exposure to construction workers, procedures to be undertaken in the event that previously unreported contamination is discovered, and emergency procedures and responsible personnel.
- Procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater with contaminants are stored, managed, and disposed in accordance with applicable regulations.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Operation

The Project Change would involve operation and maintenance of a single surface parking lot, along with attendant landscaping, lighting, signage, storm drain, and security improvements. Existing and proposed impervious cover are shown in Table 3.6-3. Under current conditions, the impervious surface area is 48,840 sf, or 56.5 percent, of the Project Change Site. Upon implementation of the Project Change, the impervious surface area would be approximately 69,850 sf, or 80.8 percent of the Project Change Site. The Project would result in approximately 21,010 square feet (sf) of new impervious cover on the Project Change Site compared to existing conditions. Runoff from impervious surfaces could contain nonpoint pollution sources that are typical of urban settings. These are normally associated with automobiles, trash, cleaning solutions, and landscaped areas. Land use and operational activities could increase existing or generate new levels of potential pollutants of concern within the project area, such as trash, sediments, pesticides, nutrients, metals, oils, and other toxins. Operation and maintenance activities under the proposed project change would generate pollutants of concern from landscape maintenance and vehicle use, which could reach surface waters in the vicinity through storm drains. However, these land uses are similar to existing uses, with the exception that building maintenance will no longer be required. Operation and maintenance (O&M) activities of campus improvements would be similar to existing O&M activities, such as landscape maintenance and vehicle use. In addition, good housekeeping practices, such as regular trash collection and sweeping, would continue to be implemented on campus. Stormwater would be drained by new pipes, drainage inlets, and other storm drain facilities, which would be connected to the existing storm drain system that serves the site.

Table 3.6-3. Total Impervious Area on Project Change Site as a Result of Project Change

	Existing, sf	Proposed, sf
Pervious	37,595(43.5%)	16,585 (19.2%)
Impervious	48,840 (56.5%)	69,850 (80.8%)

The District is exempt from having to obtain a MS4 Permit, and is not required to comply with the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) Provision C.3 requirements. The existing SWMP for post-construction measures on campus would be updated as part of the CSM Project improvements.

All construction will be targeted for LEED Gold, and will meet LEED credit requirements, which are comparable to SMCWPPP C.3 code requirements. BMPs developed for the SWMP to reduce the discharge of pollutants to the storm drain system include treatment controls, operating procedures, and practices to control site runoff, spills and leaks, sludge or waste disposal, and/or drainage from raw material storage. The SWMP also includes BMPs to address Minimum Control Measures including post-construction storm water management in new development and redevelopment, and pollution prevention and good housekeeping for facilities operation and maintenance. Post-construction storm water management controls include permanent structural and non-structural BMPs such as conservation of natural and permeable areas, permeable pavers, rooftop runoff infiltration galleries, and mechanical storm drain filters. Post-construction measures help reduce long-term impacts on stormwater quality and receiving waters. Treatment features and BMPs proposed for the Project may include bioswales, media filtration, or other mechanical means. Because the actual post-construction measures are not yet known, the District will implement hydromodification features as post-construction measures (in accordance with **Mitigation Measure CSM-HYD-2** in the Certified EIR). Although **CSM-HYD-2** is already a requirement in the Certified EIR, it would not fully address impacts of the Project Change, and a new mitigation measure, **CSM-HYD-3**, would be required to address impacts specific to the Project Change Site. Appropriately sized stormwater treatment facilities would be designed to treat the Project Change's impervious drainage area (**Mitigation Measure CSM-HYD-3**).

The impervious surface area of the Project Change site is approximately 69,850 sf, or 80.8 percent of the Project Change Site. Using the 4 percent method, as recommended by the San Mateo Countywide Water Pollution Prevention Program, the estimated surface area required for stormwater treatment the Project Change will need to provide is 0.064 acres (2,794 sf). The total Project Change Site is approximately two acres. The Countywide Program recommends using the 4 percent method to design bioretention areas, media filter treatment, and other LID treatment systems that use flow-based hydraulic sizing criteria.

The District will look to the San Mateo Countywide Water Pollution Prevention Program, LEED or the Statewide Phase II MS4 Permit for the applicable avenue to which long-term storm water protection shall be incorporated. With implementation of **Mitigation Measure CSM-HYD-2** and new **Mitigation Measure CSM-HYD-3** to be implemented for the Project Change, the District's updated SWMP for CSM, and requirements in the general construction permit, good housekeeping practices, and non-toxic landscape practices, potential water quality impacts from operation of the proposed Project would be less than significant. Therefore, the proposed Project Change would not have a new or substantially more severe impact than disclosed in the 2015 Certified EIR.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo

The District will ensure that facility improvement areas are incorporated into the design prior to the construction phase, where feasible, and located to limit stormwater runoff and provide for onsite treatment of contaminants. These facility improvement areas will be open, level areas vegetated to allow runoff to be distributed evenly across the area. They will be designed to treat runoff by filtering raw runoff through the soil media in the treatment area to trap particulate pollutants (suspended solids and trace metals) and promote infiltration. Project areas will be designed to treat runoff so that pollutants (e.g., sediment, landscape fertilizers and/or pesticides, oil from parking areas) can be filtered out and, therefore, the Project will not contribute a substantial number of additional pollutants to runoff.

Maintenance of these features will be performed routinely to prevent sediment buildup and clogging in order to ensure optimal pollutant removal efficiency. Maintenance activities will include those listed below and would be done periodically.

- Remove obstructions, debris and trash and dispose of properly.
- Inspect to ensure proper drainage between storms and within 5 days following rainfall.
- Inspect inlets for channels, soil exposure, or other evidence of erosion.
- Remove obstructions and sediment.
- Maintain vegetation via pruning and weeding, and treat with preventative and low-toxic methods.
- Check that mulch is maintained at an appropriate depth and replenish as necessary.
- Use soil that meets specifications included in the SMCWPPP C.3 Stormwater Technical Guidance Manual, or comparable document. Specifically, soils must percolate at a rate of 5 to 10 inches per hour.

A facility improvement area inspection and maintenance checklist will be used to conduct inspections, identify needed maintenance, and record maintenance that is conducted. Operation of the hydromodification features is expected to improve the quality of stormwater from the Project site. Maintenance of these areas would help eliminate or minimize impacts on stormwater quality.

New Mitigation Measures

To address stormwater impacts and to treat the impervious drainage area of the Project Change Site, a new mitigation measure (**CSM-HYD-3**) would be required to mitigate Project impacts with the Project Change.

Mitigation Measure CSM-HYD-3: Design and maintain stormwater treatment features as postconstruction measures at the Building 20 Complex at the College of San Mateo

The District will ensure the design of the proposed parking lot at the Building 20 complex includes appropriately sized stormwater treatment to minimize the mobilization of pollutants to storm drains and adjacent water bodies. As recommended by the San Mateo Countywide Water

Pollution Prevention Program, the 4 percent method will be used to estimate the surface area required for stormwater treatment of the Project Change Site. The 4 percent method is used to hydraulically size stormwater treatment areas and based on a rainfall of 0.2 inches/hour. Based on the size of the Building 20 complex site (approximately 69,850 sf, or 80.8 percent), the parking lot project will need to provide 0.064 acres (2,794 sf) for stormwater treatment.

If an alternative method of treatment is used such as a subsurface infiltration system or pervious paving, the Volume-Based Sizing Criteria may be used to estimate the area required for treatment. As a result, the project would design volume-based treatment measures to treat stormwater runoff equal to the volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with methodology set in Appendix D of the California Stormwater BMP Handbook, and using local rainfall data.

Conclusions for Impact CSM-HYD-1

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on water quality. To mitigate stormwater impacts on the Project Change Site, a new mitigation measure (**CSM-HYD-3**) would be required to mitigate Project impacts to a less than significant level with the Project Change. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on water quality. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-HYD-1**.

Impact CSM-HYD-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (less than significant with mitigation)

Construction

Groundwater in the Project Change area may fluctuate seasonally due to variations in rainfall, underground drainage patterns, and other factors. The maximum anticipated depth of excavation for utility trenching at the Project Change Site is approximately 5 feet. While unlikely, construction dewatering may be required during excavation activities if shallow groundwater exists, which could result in a temporary reduction in groundwater volumes. However, in the event that groundwater is encountered during construction, dewatering would be conducted on a one-time or temporary basis during the construction phase and would not result in a loss of water that would substantially deplete groundwater supplies. In addition, water for construction activities (e.g., dust control, concrete mixing and material washing) would not be supplied from within the San Mateo Subbasin. Therefore, impacts on groundwater supplies due to construction activities associated with the Project Change would be less than significant. No mitigation is required. Therefore, the proposed Project Change would not have a new or substantially more severe impact than disclosed in the 2015 Certified EIR.

Operation

The Project would result in approximately 21,010 sf of new impervious cover on the Project Change Site compared to existing conditions (Table 3.6-3). New impervious areas can reduce infiltration capacities so that more precipitation runs off into storm sewers or nearby surface waters instead of infiltrating and recharging the underlying aquifer. However, landscaped and hydromodification features would continue to allow for groundwater infiltration. Decreases in pervious area would be

offset by the implementation of landscape improvements, landscaped open space, improved ground cover or vegetation, or vegetation with greater infiltration capacities that would promote groundwater infiltration. Vegetation zones would slow water, allowing it to percolate into the ground, thereby providing increased benefits for groundwater recharge. In addition, the District's SWMP includes post-construction storm water management BMPs including permanent structural and non-structural BMPs such as conservation of natural and permeable areas, permeable pavers, and consideration in landscape design. Stormwater treatment areas, such as bioswales, media filtration, or other mechanical means, detention areas, and other landscape features and open space areas, would also allow for increased groundwater infiltration. Because the actual post-construction measures are not yet known, the District will implement hydromodification features as post-construction measures (**Mitigation Measure CSM-HYD-2**). The Project Change would not increase groundwater demand; therefore, groundwater supply would not be affected during operation of the Project Change.

With implementation of **Mitigation Measure CSM-HYD-2** and incorporation of landscaped areas in the design, potential impacts on groundwater recharge would be reduced. Operation of the Project Change would not utilize groundwater supplies within the San Mateo Plain Subbasin and therefore would not substantially deplete groundwater supplies or affect groundwater as part of operation. Therefore, the Project Change's impacts on groundwater supplies and recharge during operation would be less than significant, and the Project would not have a new or substantially more severe impact on groundwater than disclosed in the 2015 Certified EIR with the Project Change.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo. See above.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-HYD-2

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on groundwater supplies and recharge. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on groundwater supplies and recharge. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for Impact CSM-HYD-2.

Impact CSM-HYD-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 that would result in substantial erosion or siltation onsite or offsite, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite (less than significant with mitigation)

Construction

Project Change construction activities would temporarily alter existing drainage patterns and could result in local (onsite) and temporary erosion and siltation. However, the District's SWMP includes minimum control measures to prevent sediment at construction sites from entering the storm water

conveyance system. The Project Change would implement construction BMPs, described in the project SWPPP, to minimize the potential for erosion and sedimentation in nearby storm drains and temporary changes in drainage during construction. In addition, the District will review storm water controls and design and construction plans for post-construction considerations, erosion and sediment control feasibility, and other storm water considerations. The District would implement **Mitigation Measure CSM-HYD-1** to minimize the mobilization of sediment to storm drains and adjacent water bodies. There are no streams or rivers within the Project Change Site, and thus, the Project Change would not alter the course of an existing stream or river.

Implementation of the District's SWMP, erosion control measures during construction, compliance with the Construction General Permit requirements, and **Mitigation Measure CSM-HYD-1** would ensure that the Project Change would not result in a substantially increase the rate or amount of runoff that would result in substantial erosion, siltation, or flooding onsite or offsite. The potential for impacts related to substantial erosion, siltation, or flooding onsite or offsite from project alterations to existing drainage patterns would be less than significant. Therefore, the proposed Project would not have a new or substantially more severe impact than disclosed in the 2015 Certified EIR with the Project Change.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-HYD-1: Implement erosion-control measures to protect water quality during construction at the College of San Mateo. See above.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Operation

Stormwater flow rates in a 10-year storm event under current conditions (pre-project) on the Project Change Site are 4.7 cubic feet per second (cfs) (Lo pers. comm). The College of San Mateo works closely with the local jurisdiction to achieve a "net-zero" runoff rate for new projects. The onsite storm drain system would be designed to convey stormwater runoff from development parcel for the 10-year storm event. Under current conditions, the impervious surface area of the Project Change Site is 48,840 sf (approximately 1.12 acres). The entire CSM campus includes a total of 150 acres.

Upon implementation of the Project Change, the impervious surface area on the Project Change Site would be approximately 69,850 sf (approximately 1.6 acres). Improvements analyzed in the Certified EIR included a total of 0.3 acres of new impervious cover for proposed construction of Building 8 (Gymnasium) and Building 19 (Center for Innovation and Emerging Technologies). The increased impervious surface area within the Project Change Site would increase stormwater flow rates (post-project stormwater flow rate) on the Project Change Site to a predicted 6.2 cfs without introduction of treatment features or best management practices (BMPs). However, post-project stormwater flows would be detained and released at a rate equal to or less than pre-project levels (Lo pers. comm. In addition, the proposed Project Change would include stormwater treatment features and BMPs designed to slow stormwater flow rates and promote infiltration. The District's SWMP includes BMPs such as treatment controls, operating procedures, and practices to control site runoff. Post-construction storm water management controls include permanent structural and non-

structural BMPs including conservation of natural and permeable areas, permeable pavers, and mechanical storm drain filters. The Project Change Site will be planned and designed such that post-project peak runoff rates are at or below pre-project peak runoff rates, as required. In addition, the District's SWMP requires post-project peak flows to be mitigated to at or below pre-project conditions for up to the 50-year storm event and the overflow shall be sized to accommodate up to a 100-year storm event.

Operation of the Project Change would require soil stabilization (e.g., vegetation or other protective cover, stabilized slopes and fills) in accordance with the District SWMP, which would reduce erosion and sediment transport in exposed areas. With implementation of drainage improvements and LID features, such as additional landscaped areas and detention areas, the potential for erosion and siltation or moderate localized flooding and ponding at the Project Change Site would be reduced. Hydromodification features would further reduce the potential for flood risks. Additionally, operation of the Project Change would not alter the course of an existing stream or river because these features do not exist onsite. However, requirements and Mitigation Measures in the Certified EIR would not address impacts of the Project Change, therefore a new mitigation measure, CSM-HYD-4, would be required. To protect campus stormwater facilities and to mitigate potential adverse impacts to downstream areas due to increases in peak runoff flow rates, the site will be designed so that post-project peak runoff rates are at or below pre-project peak runoff rates (CSM-HYD-4). Documentation, in the form of hydrologic and hydraulic calculations, will be provided for the District's records to show that the project is planned and designed to meet this condition. In addition to any calculations prepared by the civil engineer to verify the Project Change's storm water facility design, the hydrologic and hydraulic calculations will include the following:

i. Description of Pre- and Post- Project Drainage Conditions including;

a. Location(s) for comparison of Pre- and Post-Project Peak Flows discharged from the project site;

b. Drainage Area for each location where peak flows are compared and whether the Drainage Area(s) are the same or different between Pre- and Post-Project Conditions;

c. Pre- and Post-Project Topographic Conditions for the Drainage Area(s) under examination;

d. Pre- and Post-Project Pervious and Impervious Area Comparison

e. Pre- and Post-Project Storm Water Facilities

f. Pre-Project Peak Runoff Rate(s), Post-Project Unmitigated Peak Runoff Rate(s) and Post-Project Mitigated Peak Runoff Rate(s)

ii. Hydraulic Calculations/Modeling for Detention Facilities using Hydrographs based on the SCS Hydrograph Method for the 2-, 25- and 50-year storm frequency events (storm event).

iii. Detention system overflow sizing to accommodate up to a 100-year storm event.

Projects which strive to achieve LEED credit for point SSc6.1 may replace the above criteria with the requirement to attain LEED points, as long as the LEED point results in more stringent mitigation of runoff. In every case, post-project peak flows shall be mitigated to at or below pre-project conditions for up to the 50-year storm event and the overflow shall be sized to accommodate up to a 100-year storm event. Calculations for LEED point SSc6.1 will be provided to the District in addition to the above hydrologic and hydraulic calculations.

Implementation of the District SWMP, and **Mitigation Measures CSM-HYD-2** and new **Mitigation Measure CSM-HYD-4** would reduce the potential impacts related to substantial erosion, siltation, or flooding onsite or offsite from project alterations to existing drainage patterns. The impact would be less than significant. Therefore, the Project would not have a new or substantially more severe impact than disclosed in the 2015 Certified EIR with the Project Change.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo. See above.

New Mitigation Measures

To address the rate of surface runoff at the Project Change Site, a new mitigation measure would be required to mitigate Project impacts with the Project Change.

Mitigation Measure CSM-HYD-4: Design the site so that post-project peak runoff rates are at or below pre-project peak runoff rates

The District will adopt design criteria for development and redevelopment projects to protect campus stormwater facilities and to mitigate potential adverse impacts to downstream areas due to increases in peak runoff flow rates. Development and redevelopment projects will be designed so that post-project peak runoff rates are at or below pre-project peak runoff rates. The District will implement the design criteria to ensure that post-project peak flows will be mitigated to at or below pre-project conditions for up to the 50-year storm event and the overflow shall be sized to accommodate up to a 100-year storm event.

Conclusions for Impact CSM-HYD-3

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on drainage patterns. To mitigate peak runoff rate impacts on the Project Change Site, a new mitigation measure (**CSM-HYD-4**) would be required to mitigate Project impacts to a less than significant level with the Project Change. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on drainage patterns. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-HYD-3**.

Impact CSM-HYD-4: Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (less than significant with mitigation)

The Project Change Site would be drained by a combination of existing and new onsite storm drain inlets and pipes to the City of San Mateo's storm system and the San Mateo Creek subwatershed. New stormwater pipes will be designed to have sufficient capacity to carry additional flows. A portion of the surface runoff would be directed to new landscaped area and hydromodification features located throughout the campus. The District's SWMP includes BMPs such as treatment controls, operating procedures, and practices to control site runoff, spills and leaks, and/or drainage from raw material storage. Post-construction storm water management controls include permanent structural and non-structural BMPs including conservation of natural and permeable areas, permeable pavers, and mechanical storm drain filters. Landscape design and practices in pollution

prevention would also be considered as post-construction storm water management controls. Thus, with implementation of **Mitigation Measure CSM-HYD-2** and new **Mitigation Measure CSM-HYD-4** to be implemented for the Project Change, runoff water from the Project site would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The impact would be less-than-significant.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo. See above.

New Mitigation Measures

Mitigation Measure CSM-HYD-4: Design the site so that post-project peak runoff rates are at or below pre-project peak runoff rates. See above.

Conclusions for Impact CSM-HYD-4

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on stormwater runoff and drainage systems. To mitigate stormwater impacts on the Project Change Site, a new mitigation measure (CSM-HYD-4) would be required to mitigate Project impacts to a less than significant level with the Project Change. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on stormwater runoff and drainage systems. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for Impact CSM-HYD-4.

Impact CSM-HYD-5: 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 or place within a 100-year flood hazard area structures that would impede or redirect flood flows (less than significant with mitigation)

The Project Change Site is located on a hilltop at approximately 662 feet above msl and is not located within a FEMA-designated 100-year flood zone. No housing is proposed as part of the Project Change, therefore, housing would not be placed within a 100-year flood hazard area. Improvements include the demolition of the existing Building 20 Complex structures and the construction of a surface parking lot with associated landscaping and storm drainage improvements. Associated flood flow changes may ultimately be reduced due to the removal of structures that could impede surface flows. In addition, the parking lot expansion would be at or near grade surface elevations and would not impede or redirect flood flows. With the hilly topography, proposed drainage improvements and additional landscaped areas, and new hydromodification features, any potential for overland flood flows would be minimized. Although **CSM-HYD-2** is already a requirement in the Certified EIR, new **Mitigation Measure CSM-HYD-4** would further ensure peak stormwater runoff would not be impeded or redirect flood flows. With Implementation of **Mitigation Measure CSM-HYD-2** and new **Mitigation Measure CSM-HYD-4**, this impact would be less than significant.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-HYD-2: Design and maintain hydromodification features as postconstruction measures at the College of San Mateo. See above.

New Mitigation Measures

Mitigation Measure CSM-HYD-4: Design the site so that post-project peak runoff rates are at or below pre-project peak runoff rates. See above.

Conclusions for Impact CSM-HYD-5

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on flood hazards. To mitigate peak runoff rate impacts on the Project Change Site, a new mitigation measure (**CSM-HYD-4**) would be required to mitigate Project impacts to a less than significant level with the Project Change. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on flood hazards. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-HYD-5**.

Impact CSM-HYD-6: Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam (no impact)

There are no levees located upstream of CSM, therefore, it is not subject to the risks of levee failure. The Lower Crystal Springs Reservoir is located approximately 1.5 miles west of CSM. However, the campus is approximately 300 feet higher in elevation than the reservoir and is on a ridge that is well separated from any possible discharge from the dam. Therefore, CSM is not located within the dam failure Inundation area of the Lower Crystal Springs Reservoir. There would be no impact.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-HYD-6**.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-HYD-6

The 2015 Certified EIR determined that the Project would have no impact on flooding related to levee or dam failure. Based on the analysis above, with incorporation of the Project Change, the Project would have no impact on flooding related to levee or dam failure. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-HYD-6**.

Impact CSM-HYD-7: Contribute to inundation by seiche, tsunami, or mudflow (less than significant)

Seiche occurs in an enclosed or partially enclosed body of water, such as a lake or reservoir. San Francisco Bay is a large, open body of water with no immediate risk of seiche. The campus is not located near an enclosed body of water capable of producing seiche waves. Therefore, there would be minimal to no risk of damage from a seiche event in the project vicinity. According to the State of California Tsunami Inundation Map for Emergency Planning (San Mateo Quadrangle), the Project Change Site is not subject to flooding from tsunami inundation (CalEMA 2009). The CSM campus has not been mapped by the State of California under the Seismic Hazards Mapping Act. However, a review of existing USGS maps did not reveal any recent landslide activity in the vicinity of proposed

project. Thus, the risk of slope failure - including seismically induced landsliding and/or mudslides - at the campus would be low. This Impact is less than significant. No mitigation is required.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-HYD-7.**

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-HYD-7

The 2015 Certified EIR determined that the Project would have a less than significant impact on inundation related to seiche, tsunami, or mudflow. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on inundation related to seiche, tsunami, or mudflow. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-HYD-7**.

3.7 Noise

This section discloses and analyzes the potential change in Project impacts on noise that would result from implementing the Project Change.

3.7.1 Regulatory Setting

The regulatory setting for noise is described on pages 3.10-1 – 3.10-4 of the 2015 Certified EIR. These regulations include Title 24 of the California Code of Regulations, the County of San Mateo noise standards (which the District uses to evaluate noise impacts to ensure continuity between the campuses that comprise the District), and the City of San Mateo municipal code. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location of where the 2015 Certified EIR is available for public review.

There are no new regulations related to noise beyond those described in the 2015 Certified EIR, and no changes have been made to the regulations summarized in the 2015 Certified EIR that would affect the environmental analysis of the Project Change.

3.7.2 Environmental Setting

3.7.2.1 College of San Mateo

The environmental setting for noise at CSM is described on pages 3.10-6 – 3.6-13 of the 2015 Certified EIS. This discussion describes the fundamentals of noise and vibration, and the existing noise levels at the CSM campus. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIS is available for public review.

The setting with regard to noise at CSM has not changed substantially since the Certified Plan was prepared. The noise levels documented at the CSM campus in 2015 and included in the Certified EIR are still representative of conditions at the Project Change Site.

3.7.2.2 Project Change Site

The existing noise environment at the Project Change Site is similar to the noise levels measured at other locations on the CSM campus during the noise monitoring survey conducted for the 2015 Certified EIR, because the same typical noise sources, such as vehicles operating on interior campus roads, building HVAC systems, and student and staff voices, are present. Based on the measured values for the two on-campus monitoring sites in **Table 3.10-10** of the Certified EIR (between 55.9 and 57.0 Leq), noise levels at the Project Change Site can be expected to be in the same decibel range. Although these noise levels were measured in 2015, it is likely that there has been no substantial change in these noise levels because student enrollment has not grown appreciably at the campus.

There are single-family residences located approximately 600 feet northeast of the Project Change Site. In the 2015 Certified EIR, these single-family residences were located at a distance of 700 feet

from the nearest building on the Project Site that would undergo a change. Consequently, the Project Change would decrease the distance to the nearest sensitive land uses by approximately 100 feet, because the Project Change Site is closer to the residences than any other buildings analyzed in the 2015 Certified EIR. On-campus buildings that could be affected by noise from the Project Change include existing Buildings 10, 12, 19, and 36. Although some of these and other buildings included in the Project analyzed in the 2015 Certified EIR would be demolished and reconstructed as part of the Project, it is possible that the Project Change could occur before demolition of these other buildings occurs.

3.7.3 Impacts and Mitigation

This section describes the change in Project impacts on noise that would occur with the Project Change. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant. Unless otherwise noted, the analysis assumes that applicable mitigation measures from the 2015 Certified EIR would be implemented for the Project Change; these measures are listed below under each respective impact heading. If new mitigation measures are needed to reduce new impacts that would result from the Project Change, those measures are also listed below.

This SEIR analysis evaluates the change in Project impacts with the Project Change, and, if applicable, changes in circumstances or new information that was not available at the time the 2015 Certified EIS was prepared. The analysis does not reevaluate the impacts of the Project that were already disclosed in the 2015 Certified EIR and are not altered due to the Project Change. Based on the change in the Project impact due to the Project Change, a determination is made as to whether there would be changes to the impact significance determinations for the Project in the 2015 Certified EIR.

3.7.3.1 Significance Criteria

The State CEQA Guidelines Appendix G (14 California Code of Regulations 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on noise.

An impact would be considered significant if construction or operation of the Project would do any of the following.

- Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.
- Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels.
- Result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.
- Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

- Be 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 public use airport and expose people residing or working in the Project area to excessive noise levels.
- Be located in the vicinity of a private airstrip and expose people residing or working in the Project area to excessive noise levels.

3.7.3.2 Methods

Noise levels associated with the Project Change were analyzed using the same general approach as discussed in the 2015 Certified EIR for the Project. Demolition and construction activities were evaluated by summing the noise levels of the three loudest pieces of equipment that would likely operate at the Project Change Site. The expected list of construction equipment was provided by the Project Applicant. The noise levels for each equipment type were identified based on the noise reference levels in FHWA's *Roadway Construction Noise Model User's Guide* (Federal Highway Administration 2006).

Vibration from construction equipment is evaluated using methods recommended by Caltrans and the Federal Transit Administration using source levels and criteria in **Tables 3.10-3** through **3.10-5** of the Certified EIR. (Federal Transit Administration 2006; California Department of Transportation 2013)

3.7.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.7.3.1, *Significance Criteria*.

Impact CSM-NOI-1: Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies (less than significant with mitigation)

Construction

Demolition of the existing parking lot, greenhouse, and lath house would result in temporary noise through the operation of heavy-duty construction equipment. Through consultation with the Project Applicant, a list of equipment that would likely be used for construction was developed, and the corresponding acoustical use factors and Lmax noise levels were identified from the FHWA's *Roadway Construction Noise Model User's Guide* (Federal Highway Administration 2006).

Identical to the approach taken in the Certified EIR, a reasonable worst-case noise level resulting from construction of the Project Change was evaluated by summing the noise levels of the three loudest pieces of equipment that would likely operate at the same time (jackhammer, grader, and auger). The combined maximum noise level (L_{max}) and combined average noise level (L_{eq}) were determined to be 91 dBA and 85 dBA at 50 feet, respectively. This level of noise would be a conservative scenario, as it assumes that the three loudest equipment pieces would be operating in the same location simultaneously. The analysis of the Project Change is based on construction equipment specific to the Project Change and would differ from the equipment assumed in the Certified EIR.

Table 3.7-1. Typical Construction Noise Emission Levels

Equipment	Acoustical Use Factor	L_{max} at 50 Feet (dBA)
Auger	20%	84
Backhoe[1]	40%	78
Compactor	20%	83
Concrete mixer truck	40%	79
Crane	16%	81
Dozer	40%	82
Dump Truck[2]	40%	76
Excavator[3]	40%	81
Front end loader[4]	40%	79
Grader	40%	85
Jackhammer	20%	89
Paver	50%	77

Source: Federal Highway Administration 2006.
L_{max} = maximum sound level
dBA = A-weighted decibel
1 Assumed to be representative of a backhoe and a wheel vibrator. Both types of equipment would be used during construction.
2 Assumed to be representative of a dump truck and a water truck. Both types of equipment would be used during construction.
3 Assumed to be representative of an excavator and a ripper. Both types of equipment would be used during construction.
4 Assumed to be representative of a front end loader and a rototiller. Both types of equipment would be used during construction.

Table 3.7-2 shows the estimated sound levels from Project Change construction activities as a function of distance, based on calculated point-source attenuation over "soft" (i.e., acoustically absorptive) ground. The nearest sensitive land use from the Project Change Site are the residences located on Tobin Clark Drive, which are approximately 600 feet from where construction would occur. At these residences, noise from Project Change construction would be 58 dBA L_{eq}. Although construction of the Project Change would occur in addition to construction of the Project, the combined effect (i.e. the effect of the Modified Project) would likely still be represented by the conservative scenario of the three loudest pieces of equipment operating simultaneously at the Project Change Site. This is because construction of the Project will be occurring throughout the CSM campus over approximately eight years, while construction of the Project Change will occur in the northeast portion of the CSM campus for approximately six months. Therefore, the potential for overlap of operating heavy duty construction equipment to occur simultaneously in the same local area of the CSM campus is not likely. Thus, the evaluation of the three loudest pieces of equipment occurring at the Project Change Site is a reasonable worst-case scenario for assessing any potential additional impacts beyond those identified in the 2015 Certified EIR that would occur as a result of the Project Change.

Table 3.7-2. Calculated Construction Noise Emission Levels in proximity to the Project Change Site

Distance between Source and Receiver (feet)	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	0.0	91	85
150	-10	-2.4	79	73
200	-12	-3.0	76	70
300	-16	-3.9	72	66
400	-18	-4.5	69	63
500	-20	-5.0	66	60
600	**-22**	**-5.4**	**64**	**58**
700	-23	-5.7	63	57
800	-24	-6.0	61	55
900	-25	-6.3	60	54
1,000	-26	-6.5	59	53
1,200	-28	-6.9	57	51
1,400	-29	-7.2	55	49
1,600	-30	-7.5	54	48
1,800	-31	-7.8	52	46
2,000	-32	-8.0	51	45
2,500	-34	-8.5	49	43
3,000	-36	-8.9	47	41

Note: Numbers in **bold** indicate the distance between the project boundary and the nearest sensitive land use.
dB = decibel
dBA = A-weighted decibel
L_{max} = maximum sound level
L_{eq} = combined average noise level

The District uses San Mateo County noise standards for the purposes of assessing construction noise impacts. The noise levels in **Table 3.7-2** indicate that construction activities have the potential to exceed the County's daytime exterior noise standard of 55 dBA within about 800 feet of construction activity and the nighttime noise standard of 50 dBA within about 1,300 feet of construction activity. The residences on Tobin Clark Drive are located 600 feet from the Project Change construction site. The County exempts construction noise that occurs between the hours of 7:00 a.m. and 6:00 p.m. on weekdays and 9:00 a.m and 5:00 p.m. on Saturdays. Because construction of the Project Change is expected to mostly occur during these exempt hours, construction noise would primarily be exempt from the County standards. However, it is possible that construction may occur in the evenings on weekdays or Saturdays or anytime on Sundays. As such, there is a potentially significant impact from construction noise due to the potential for construction to occur outside of the hours exempt by the County.

With implementation of **Mitigation Measure CSM-NOI-1** the construction contractor would be required to implement a number of noise-reduction measures to reduce noise levels to meet County standards outside of the exempt hours. This impact would be less than significant.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-NOI-1: Employ noise-reducing construction practices at the College of San Mateo

If construction work must be conducted between the hours of 6:00 p.m. and 7:00 a.m. weekdays, 5:00 p.m. and 9:00 a.m. on Saturdays, or at any time on Sundays, Thanksgiving and Christmas, the District will require the contractor to employ noise-reducing construction practices limit noise to be in compliance with the county noise standards specified in **Table 3.10-2** of the Certified EIR. Measures that can be used to limit noise include those listed below.

- Locating equipment as far as feasible from noise sensitive uses.
- Requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
- Not allowing idling inactive construction equipment for prolonged periods (i.e., more than 2 minutes).
- Prohibiting gasoline or diesel engines from having unmuffled exhaust.
- Scheduling construction activities and material hauling that may affect traffic flow to off-peak hours and using routes that would affect the fewest number of people.
- Using noise-reducing enclosures around noise-generating equipment.
- Constructing temporary barriers between noise sources and noise-sensitive land uses or taking advantage of existing barrier features (terrain, structures) to block sound transmission.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Operation

The Project Change would not result in a substantial increase in sources of operational noise. A review of the parking demand conditions at the Project Change Site by the Project traffic engineers has concluded that the existing parking supply at the CSM Campus is considered to be sufficient, and the addition of a larger parking lot from implementation of the Project Change would not result in increased vehicle trips (Hexagon 2018). Refer to Appendix D of this SEIR. Thus, the Project Change would not result in any increase in operational noise from traffic sources that could exceed any noise standards. The potential for other sources of operational noise would be limited, because a parking lot and landscaped area would not require much noise-generating infrastructure or equipment. Although the Project Change would not generate additional vehicle trips, there could be a shift in the locations of where vehicles park from other parking lots on the CSM campus to the Project Change Site, which could result in a localized increase of vehicles and noise at the Project Change Site. The additional vehicles that park at the Project Change Site would be traveling at very low speeds (10 miles per hour or less) and on a smooth surface, however, and would not generate substantial tire-related noise. Vehicle noise from vehicles traveling at speeds of 10 miles per hour or less would not be audible at a distance of 700 feet, which is the location of the nearest noise-

sensitive land use. Landscaping equipment to maintain the landscaped area may be occasionally present, but that equipment would occur for short periods of time given the small size of the landscaped areas of the Project Change Site. Additionally, it is likely that such equipment would not affect the nearest sensitive land uses, which are single-family residences, located approximately 600 feet from the Project Change Site. As such, the Project Change would not result in operational noise that would expose people to noise levels in exceeds of any standards.

Conclusions for Impact CSM-NOI-1

The 2015 Certified EIR determined that the Project would have a less than significant impact with implementation of noise mitigation. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on noise. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-NOI-1**.

Impact CSM-NOI-2: Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels (less than significant)

Construction

Construction of the Project Change would have limited potential to generate excessive ground-borne vibration. The operation of any construction equipment could generate localized ground-borne vibration in the vicinity of construction activity, however, ground-borne vibration is typically only perceptible when caused by impact equipment or very large equipment (i.e. pile drivers, jackhammers, large bulldozers). As indicated in **Table 3.7-1**, a jackhammer and a dozer, excavator, and other large equipment would be required during Project Change construction. Based on Table 3.10-6 in the Certified EIR, vibration levels from a large bulldozer, truck, and jackhammer would be approximately 0.01 peak particle velocity (PPV) or less at a distance of 100 feet. Based on Table 3.10-8 in the Certified EIR, a PPV of 0.01 is the limit of what is considered to be perceptible vibration levels; therefore, vibration levels from equipment at the Project Change Site would only be perceptible within about 100 feet of the site. Because the nearest noise sensitive land use are approximately 600 feet from the Project Change Site, ground-borne vibration from construction would not be noticeable given that the limit of perceptibility occurs at a distance of 100 feet. Thus, existing sensitive land uses would not be subject to any additional excessive ground-borne vibration beyond the levels evaluated in the 2015 Certified EIR for the Project.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-NOI-2**.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Operation

As discussed for **Impact CSM-NOI-1**, the Project Change would not result in additional vehicle trips, so the potential for ground-borne vibration from vehicles would not increase. Landscaping equipment would be present occasionally to maintain the landscaped areas, but such equipment does not interact with the ground to generate ground-borne vibration. There is no other

infrastructure or equipment that would be present at the Project Change Site over the long-term that would produce ground-borne vibration since the Project Change involves the construction of a surface parking lot.

Conclusions for Impact NOI-2

The 2015 Certified EIR determined that the Project would have a less than significant impact on noise. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on noise. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-NOI-2.**

Impact CSM-NOI-3: Result in a permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project (less than significant)

As discussed for **Impact CSM-NOI-1**, the Project Change would not result in any operational sources that would lead to noise that would be considered excessive, because no new vehicle trips to the CSM campus would be generated and there would be limited operational activity associated with a parking lot. As discussed for **Impact CSM-NOI-2**, the localized increase in noise from the shift of vehicles parking in other lots on the campus to the Project Change Site would be minor and inaudible at the nearest sensitive land use, because of the low speeds associated with parking lots. Thus, after construction is completed, there would be no permanent increase in noise associated with the Project Change Site.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-NOI-3**.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact NOI-3

The 2015 Certified EIR determined that the Project would have a less than significant impact on noise. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on noise. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-NOI-3**.

Impact CSM-NOI-4: Result in a temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project (less than significant with mitigation)

As discussed for **Impact CSM-NOI-1,** construction of the Project Change would result in temporary noise through the use of heavy duty equipment. At the nearest sensitive land use, the anticipated construction noise for a worst-case scenario (three loudest pieces of equipment operating simultaneously) would be 58 dBA L_{eq} (refer to **Table 3.7-2**), which would be above the County's exterior standard of 55 dBA for single family residences if the noise occurs for 30 minutes or more in a 1-hour period. While the construction noise could potentially increase the ambient noise level at the nearest residence and exceed the County's standard, construction noise is considered to be exempt by the County during daytime hours. If construction occurs at night or on Sundays, the increase could be considered significant; however, CSM-NOI-1 would mitigate any noise that occurs

during the non-exempt hours. Additionally, Project Change construction would result in the same noise level at the nearest noise sensitive land use as the Project (refer to Table 3.10-17 of the Certified EIR). As discussed above, the distance to the nearest residences and the Project Change Site is 100 feet closer than the distance to the residences and the nearest construction activity on the CSM campus as evaluated in the 2015 Certified EIR. While the Project Change would be approximately 100 feet closer to the residences on Tobin Clark Drive than the Project, the combination of equipment types anticipated for the Project Change generates less noise and would result in lower noise levels. As a result, the noise level from the Project is expected to be the same at these residences with the Project Change. Thus, the Project Change would result in a noise increase that's equal to the increase caused by the Project, and it would not worsen impacts pertaining to temporary noise increases.

2015 Certified EIR Mitigation Measures

Mitigation Measure CSM-NOI-1: Employ noise-reducing construction practices at the College of San Mateo

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM NOI-4

The 2015 Certified EIR determined that the Project would have a less than significant impact with mitigation on noise. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact with mitigation on noise. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-NOI-4**.

Impact CSM-NOI-5: Be 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 public use airport and expose people residing or working in the Project area to excessive noise levels (no impact)

The Project Change Site is located on the CSM campus. As discussed in the Certified EIR, the CSM campus is not located within 2 miles of a public airport. Additionally, because the Project Change is not adding any trip-generating land uses or changing student enrollment, it would not result in any additional people on the CSM campus that would have the potential to be exposed to any excessive aircraft noise.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-NOI-5**.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-NOI-5

The 2015 Certified EIR determined that the Project would have a less than significant impact on noise. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on noise. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-NOI-5**.

Impact CSM-NOI-6: Be located in the vicinity of a private airstrip and expose people residing or working in the Project area to excessive noise levels (no impact)

The Project Change Site is located on the CSM campus. As discussed in the Certified EIR, the CSM campus is not located in the vicinity of a private airstrip. Additionally, because the Project Change is not adding any trip-generating land uses or changing student enrollment, it would not result in any additional people on the CSM campus that would have the potential to be exposed to any excessive aircraft noise.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-NOI-6**.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-NOI-6

The 2015 Certified EIR determined that the Project would have a less than significant impact on noise. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on noise. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-NOI-6**.

3.8 Recreation

This section discloses and analyzes the potential change in Project impacts on recreation that would result from implementing the Project Change.

3.8.1 Regulatory Setting

The regulatory setting for recreation is described on pages 3.13-1 – 3.13-2 of the 2015 Certified EIR. As discussed therein, there are no federal or state regulations for recreation applicable to the Project. The District is exempt from the application of city and county zoning ordinances. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location of where the 2015 Certified EIR is available for public review.

There are no new regulations related to recreation beyond those described in the 2015 Certified EIR, and no changes have been made to the regulations summarized in the 2015 Certified EIR that would affect the environmental analysis of the Project Change.

3.8.2 Environmental Setting

3.8.2.1 College of San Mateo

The environmental setting for recreation at CSM is described on pages 3.13-2 – 3.13-3 of the 2015 Certified EIR. This discussion describes existing campus recreational facilities including the Building 8 Gymnasium, the swimming pool complex and sports fields, as well as passive recreation areas such as open lawns, open space, and undeveloped wooded areas. The discussion also describes non-campus recreational facilities in the surrounding region, including the Crystal Springs Regional Trail and City of San Mateo parks located south and east of the campus. As discussed therein, CSM includes 86 acres of garden, landscaped, and open space area. This information is incorporated by reference pursuant to Section 15150 of the CEQA Guidelines. Refer to Chapter 1, *Introduction*, of this SEIR for the location where the 2015 Certified EIR is available for public review.

The setting with regard to recreation at CSM has not changed substantially since the Certified Plan was prepared (Alldredge pers. comm.).

3.8.2.2 Project Change Site

The Project Change Site occupies an 86,435 sf (approximately two-acre) area in the northeast portion of the CSM campus and contains Building 20, a greenhouse, a lath house, a parking lot, and garden areas. The gardens on the Project Change Site consist of a North Garden and a South Garden and are used for passive recreation. The North Garden occupies approximately 19,185 sf and includes a lawn, a circular brick walkway, and a landscaped area. The South Garden occupies approximately 13,620 sf and includes an educational demonstration garden interspersed with small pathways along with a landscaped area that includes a semi-mature non-native *Metasequoia glyptostroboides* (dawn redwood) and seating bench. The total area for the two gardens is 32,805 sf, approximately 38 percent of the total Project Change Site, and contains approximately 151 trees, comprised of 40 different species, both native and ornamental.

3.8.3 Impacts and Mitigation

This section describes the change in Project impacts on recreation that would occur with the Project Change. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant. Unless otherwise noted, the analysis assumes that applicable mitigation measures from the 2015 Certified EIR would be implemented for the Project Change; these measures are listed below under each respective impact heading. If new mitigation measures are needed to reduce new impacts that would result from the Project Change, those measures are also listed below.

This SEIR analysis evaluates the change in Project impacts with the Project Change, and, if applicable, changes in circumstances or new information that was not available at the time the 2015 Certified EIR was prepared. The analysis does not reevaluate the impacts of the Project that were already disclosed in the 2015 Certified EIR and are not altered due to the Project Change. Based on the change in the Project impact due to the Project Change, a determination is made as to whether there would be changes to the impact significance determinations for the Project in the 2015 Certified EIR.

3.8.3.1 Significance Criteria

The State CEQA Guidelines Appendix G (14 California Code of Regulations 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on recreation.

An impact would be considered significant if construction or operation of the Project would do any of the following.

- 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.
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

3.8.3.2 Methods

The analysis of the Project's recreation impacts considers the increase in demand for parks and open space associated with the Project and whether the increased demand could be accommodated by existing facilities and/or new facilities provided as part of the Project. Information used to assess the impacts on existing recreational facilities in the surrounding region of the campuses was obtained directly from available public information.

3.8.3.3 Impacts and Mitigation Measures

This section includes a discussion of each impact as it corresponds to the significance criteria presented in Section 3.8.3.1, *Significance Criteria*.

Impact CSM-REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated (less than significant impact)

The Project Change would demolish the existing buildings and garden spaces within the Project Change Site and create a surface parking lot to serve CSM students, staff and the community/visitors. The garden spaces are currently used for passive recreation (i.e., strolling and contemplation). The Project Change would not include residential uses or induce population growth in the area which could increase the use of neighborhood or regional parks or recreation facilities. The Project Change would result in the loss of approximately 32,805 square feet (approximately 0.75 acre) of garden and landscaped area. This constitutes a loss of less than one percent of the 86 acres of total garden, landscaped, and open space area currently located within the CSM Campus. This minor reduction in open space would not result in an increase in the use of other park or recreational areas to the extent that substantial physical deterioration of such areas would occur. A large walkable area with grass, benches, sidewalks, and water features exist less than 175 yards to the west of the Project Change Area. Passive recreation (i.e., reading and contemplation) could be accommodated within several other locations elsewhere on campus, including in the green space south of West Perimeter Road (approximately 361 yards south of the Project Change Site) on the west side of the DaVinci Lot 3, as well as the area southeast of the Library Building (approximately 221 yards south of the Project Change Site), both of which have lawns, shade trees, and seating areas. While the Project Change would not accelerate the deterioration of recreational facilities, the Project Change would remove an area that is valued by some as a respite for quiet and contemplation, as well as a place to enjoy the weather and be outdoors. Impacts to these aspects of the Project Change are considered aesthetic, rather than recreational. For an analysis of the Project Change's potential aesthetic impacts, including impacts to the visual character or quality of the site and its surroundings, see Chapter 3.1, *Aesthetics*.

As noted in the 2015 Certified EIR, the Project improvements at CSM would not induce population growth or increase the student enrollment or capacity at CSM and recreational facilities at CSM have sufficient capacity to serve the college's student and staff population. Therefore, the 2015 Certified EIR concluded that the Project would not increase the use of existing neighborhood and regional parks or other recreational facilities that would result in the substantial deterioration of such facilities, and there would be no impact.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-REC-1**.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-REC-1

The 2015 Certified EIR determined that the Project would have no impact on recreation. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on recreation. Thus, the Project Change would change the 2015 Certified EIR's impact determination for **Impact CSM-REC-1**, but impacts would remain below the level of significance**.**

Impact CSM-REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment (less than significant)

The Project Change does not propose the construction of recreational facilities. The Project Change would remove approximately 32,805 (0.75 acre) square feet of garden and landscaped area used for passive recreation on the CSM campus. This constitutes only a small amount (less than percent) of the total available garden, landscaped, and open space available for use at the CSM campus. As the percentage of open space that would be removed by the Project Change would constitute a minimal percentage of the total open space available to students and staff for passive recreation on CSM, it would not require the construction or expansion of recreational facilities, which could have an adverse physical effect on the environment, to serve the campus demand for recreational uses. Therefore, the impact would be less than significant.

As noted in the 2015 Certified EIR, the Project improvements at CSM would include the demolition of the existing 56,000-sf Building 8, Gymnasium, and the construction of a new two-story, approximately 75,000 to 80,000-sf Building 8, Gymnasium within approximately the same footprint as the existing building. This replacement would not introduce a new program or new population of students to the campus nor would it result in any adverse physical environmental impacts that were not already addressed in the other resource sections of the EIR. Therefore, this impact would be less than significant.

2015 Certified EIR Mitigation Measures

The 2015 Certified EIR included no mitigation measures for **Impact CSM-REC-2**.

New Mitigation Measures

The Project Change would not result in the need for new mitigation measures to reduce Project impacts.

Conclusions for Impact CSM-REC-2

The 2015 Certified EIR determined that the Project would have a less than significant impact on recreation. Based on the analysis above, with incorporation of the Project Change, the Project would have a less than significant impact on recreation. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for **Impact CSM-REC-2.**

Chapter 4
Other CEQA Discussions

4.1 Cumulative Impacts

Section 15130 of the State CEQA Guidelines requires lead agencies to evaluate a proposed undertaking's potential to contribute to cumulative impacts in the project or program area. A "cumulative impact" is defined in Section 15355 as an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects which increase environmental impacts. CEQA requires the lead agency to identify projects and programs related to the undertaking being analyzed and evaluate the combined effects of those projects on the environment. If cumulative impacts are identified as significant, the lead agency must then assess the degree to which the proposed undertaking would contribute to those impacts and identify ways of avoiding or reducing any contribution evaluated as "cumulatively considerable".

A cumulative analysis was provided in the 2015 EIR. The focus of the analysis in this SEIR is on the potential changes in cumulative impacts, considering the impacts of the Project Change, e.g., demolition of Building 20 complex and construction of a parking lot in its place.

4.1.1 Approach and Method

Section 15130(b) of the State CEQA Guidelines states that the discussion of cumulative impacts should be guided by the standards of practicality and reasonableness, and should include the following elements, which are necessary to an adequate discussion of cumulative impacts:

- Either, 1) a list of past, present, and probable future projects producing related or cumulative impacts or, 2) a summary of projections contained in an adopted general plan or similar document.
- A discussion of the geographic scope of the area affected by the cumulative impact.
- A summary of expected environmental effects to be produced by these projects.
- Reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

This SEIR makes use of both a list approach (for all subjects other than air quality, greenhouse gas emissions, and traffic) as well as a projection approach (for air quality, greenhouse gas emissions, and traffic).

4.1.1.1 Projects Considered for List Approach

Reasonably foreseeable future projects are projects which have either been adopted or have otherwise demonstrated the likelihood to occur based on documentation from the project sponsor. Cumulative analysis for this SEIR includes activities within 2 miles of the Project Change Site which might cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment and could be classified as a "Project" under Section 21065 of the State CEQA Guidelines.

Table 4-1 presents the projects considered in this analysis. The list of cumulative project was compiled through review of City and County project lists and in consultation with City of San Mateo planning staff.

Table 4-1. Projects Considered in Cumulative Analysis

Project Name	Project Status	Project Type	Description	Impacted Area	Distance from Project Change Site
Callan Subdivision	Conceptual Review	Residential	8-unit, single-family	North east corner Crystal Springs Road and Tartan Trail Road	0.67 miles
San Mateo Executive Park	Approved Project	Commercial	100,000 sf commercial space	3000 & 3155 Clearview Way, City of San Mateo	0.36 miles
Verona Ridge	Construction Authorized	Residential	34 units, single-family	Campus Drive, Highway 92, the Peninsula Golf and Country Club and the Peninsula Office Park, City of San Mateo	0.44 miles
Highlands Estates Subdivision	Construction Authorized	Residential	11 residential parcels (4.5 acres, 93.42 open space)	Lots 1 through 4 located on Bunker Hill Drive, Lots 5 through 8 along Ticonderoga Drive, Lots 9 through 10 at the east end of Cobblehill Place, Lot 11 at Northeastern end of Cowpens Way	1.46 miles
Ascension Heights Subdivision Project	Approved	Residential	19 single-family residences (13.3 acres); conservation area (7.8 acres)	Northeast corner of Bel Aire Road and Ascension Drive, east of Interstate 280 and northwest of State Route 92	0.8 miles
PA14-060 De Anza Duplex	In Construction	Residential	Two residential dwelling units are proposed.	2123 and 2133 De Anza Boulevard.	1.16 miles
PA16-032 Temple Beth-El 1700 Alameda de las Pulgas	Approved	Religious Building	A formal planning application has been submitted for proposed expansion and remodel of Peninsula Temple Beth El.	1700 Alameda de las Pulgas, San Mateo, CA 94403	0.87 miles

4.1.1.2 Projection Approach

For certain subjects, the impacts are regional or global in nature. Thus, a projection approach was used for these subjects, including criteria pollutants for air quality, greenhouse gas emissions, and traffic. The projection used for criteria pollutants is considering the regional forecast of emissions in the BAAQMD 2017 Clean Air Plan, and project criteria pollutant impacts are considered as to whether they contribute to regional criteria pollutant impacts. For greenhouse gas emissions, the context is statewide GHG emissions and their contribution to global GHG emissions, and project GHG emissions are considered in terms of how they contribute to state and global emissions. For traffic, projections from local land use planning are used to consider cumulative traffic impacts in the future and the project's potential to contribute.

4.1.2 Aesthetics

The 2015 EIR considered cumulative aesthetics at all three campuses. However, aesthetic impacts are localized to each campus. The Project Change is only visible from a limited area at and adjacent to CSM. As a result, the cumulative analysis for this SEIR is focused on whether the Project Change would change cumulative aesthetic impacts related to CSM and its environs. The projects occurring within and near CSM include those identified in the planning horizons of the general plans for San Mateo County and the City of San Mateo.

Cumulative impacts for aesthetics would result when impacts of a project, when combined with cumulative impacts from other projects, would contribute to a substantial degradation or alteration of the existing visual character of the vicinity and regional context, associated scenic vista views, and views from scenic highways. Such views can be altered by extensive vegetation removal and landform alteration and the introduction of incompatible anthropogenic features, all which act to transform the visual landscape of the vicinity and the region as a whole. In addition, new sources of light can create light pollution and ambient glow that can affect nighttime views, for example, by reducing the amount of visible dark sky and stars and introducing nuisance light spill.

Development at each campus would result in the impacts on visual resources identified in Section 3.1.4.3, *Impacts and Mitigation Measures*, and would contribute to cumulative visual impacts in the area. These impacts include temporary visual changes as a result of construction activities, changes to scenic resources along scenic highways, changes in visual character and quality at the Project area, and changes in light and glare at the Project area and vicinity introduced from new lighting sources.

Buildout of the general plans and associated specific and area plans, as described above, have the potential to contribute similar impacts on aesthetic/visual resources. These impacts would also result from construction activities; the development of roadways, parking areas, and buildings; alteration of the area's visual character, and the introduction of new light sources that would change the visual resources in the area.

While construction activities are temporary, they would require the removal of trees and shrubs on the site, which would largely be offset by proposed campus landscaping. While construction would occur near sensitive visual receptors, the quality of available views would be affected for only a short time because the Project area is fairly small; furthermore, it is located in a developed area already accustomed to construction activities. Accordingly, construction would not result in a considerable contribution to cumulative impacts related to construction in the area.

At CSM, as described in Section 3.1.4.3, the area has rolling terrain and affords quality scenic vistas, and the Project affects a ridgeline view that is seen as a partial element within wider vista views. State scenic highways would not be affected, and the Project Change would also not affect views from County and local scenic roadways (Alameda de las Pulgas, Crystal Springs Road, Polhemus Road, and SR 92) because existing terrain, vegetation, and development buffer views of the Project area. The proposed design of buildings and proposed campus landscaping ensure that the Project minimizes visual impacts to the degree possible, in the few locations limited views of the changes would be present, so that they are not cumulatively considerable. In addition, the campus is currently well-lit and the surrounding area is currently well-lit. However, lighting associated with the Project Change could increase the amount of nighttime lighting and could result in a considerable contribution to cumulative impacts related to ambient light glow and light pollution in the area. However, **Mitigation Measure CSM-AES-2** would reduce these impacts to a less-than-significant level.

While the Project Change would not change overall CSM aesthetics, as described in Section 3.1.3.3, new **Mitigation Measures CSM-AES-2** and **CSM-AES-3** would be required to reduce aesthetic impacts that would result from the Project Change to a less than significant level. These impacts are specific to visual features on the Project Change Site, including unique botanical specimens and commemorative plaques. There are no other cumulative projects that contribute to this localized impact as these features do not exist on other sites. Thus, cumulative aesthetic impacts would remain less than significant with the Project Change.

The Project is located in an area that is already highly developed, many of the changes would not be visible, the Project Site retains much of the existing character, and the Project uses design measures to reduce visual impacts. In addition, implementation of the mitigation measures would reduce the lighting impacts associated with the Project, making it blend better within its existing visual environment. The Project Change Site's unique visual features requiring mitigation are not located on other sites. Therefore, visual impacts resulting from the Project with the Project Change would not result in a cumulatively considerable contribution to the existing cumulative visual impact.

4.1.3 Air Quality

As analyzed in the 2015 Certified EIR, the cumulative impact of the Project would include the criteria pollutant emissions associated with construction and operations at the campuses of Cañada College and Skyline College in addition to the CSM campus-related emissions. The combined effect of all three campuses is evaluated, because criteria pollutants are regional pollutants that affect air quality within a geographic region that is bound by topographic features, such as the SFBAAB. Consequently, the effect of emissions at each campus, although the campuses are several miles apart, would cumulatively act in the atmosphere to affect ambient air quality in the region.

The 2015 Certified EIR discusses that the project-level BAAQMD thresholds are used to determine the Project's cumulative impacts (i.e. the impacts from all three campuses), because the BAAQMD, during the development of the thresholds, considered the levels at which a project's emissions would be cumulatively considerable. As such, the analysis of cumulative impacts for this SEIR, combines the emissions from the Modified Project at the CSM campus with the emissions at Cañada and Skyline College from the 2015 Certified EIR and evaluates the total emission relative to the BAAQMD thresholds.

Cumulative Criteria Pollutant Emissions during Construction

Construction of the Modified Project and the Project components at Cañada and Skyline Colleges would generate criteria pollutant emissions from construction equipment exhaust and construction employee and haul truck vehicle exhaust. The estimated total maximum daily construction emissions associated with the Modified Project and the Project components at Cañada and Skyline Colleges are shown in **Table 4-2**.

Table 4-2. Construction Criteria Pollutant Emissions from the Modified Project and Project Components at Cañada and Skyline Colleges (pounds/day)

	Unmitigated									
Year	**ROG**	**NO_X**	**CO**	**SO_X**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**
2016	12.9	**132.9**	99.8	0.1	19.1	7.2	26.4	10.2	6.7	16.9
2017	22.9	**202.7**	144.5	0.2	20.3	12.0	30.9	10.5	11.2	20.3
2018	28.6	**242.4**	184.8	0.3	3.6	14.3	17.9	0.9	13.5	14.4
2019	31.0	**266.5**	209.2	0.3	13.3	15.8	28.6	3.6	14.8	18.1
2020	17.9	**151.0**	116.0	0.2	1.9	9.2	11.1	0.5	8.6	9.1
2021	12.3	**103.8**	96.2	0.2	1.6	5.6	7.2	0.4	5.2	5.6
2022	10.7	**94.8**	79.2	0.1	1.1	5.8	6.9	0.3	5.5	5.8
2023	4.0	39.5	27.0	0.0	0.3	2.6	2.9	0.1	2.4	2.5
2024	3.7	32.2	30.3	0.0	0.4	2.1	2.4	0.1	1.9	2.0
2025	1.3	12.7	8.4	0.0	0.1	0.9	0.9	0.0	0.8	0.8
2026	2.0	17.8	25.2	0.0	0.5	0.8	1.2	0.1	0.7	0.8
2027	0.9	7.5	12.5	0.0	0.2	0.3	0.5	0.1	0.3	0.4
Daily Maximum	**29.8**	**266.5**	**204.1**	**0.3**	**20.3**	**15.8**	**30.9**	**10.5**	**14.8**	**20.3**
BAAQMD Threshold	*54*	*54*	*--*	*--*	*BMPs*	*82*	*--*	*BMPs*	*54*	*--*
BAAQMD Threshold Exceeded?	*No*	*Yes*				*No*			*No*	

As shown in **Table 4-3** below, implementation of 2015 Certified EIR **Mitigation Measures CC-**, **CSM-**, and **SC-AQE-1** through **-3**, **CC-**, **CSM-**, and **SC-AQE-5**, would reduce cumulative emissions, but emissions would still exceed the BAAQMD's NO_x threshold in the two years of construction in which the Project Change would occur (2018 and 2019). Cumulative emissions from the 2015 Certified EIR would remain unchanged in every other year of construction. In 2018, the Modified Project would result in an increase in the maximum cumulative daily NOx emissions that would occur in 2018 (from 112.1 to 130.2 pounds per day), and, in 2019, the Modified Project would result in additional emissions that would exceed the threshold but would not change the maximum cumulative emissions that would occur in 2019 (143.1 pounds per day). Although the Modified Project would increase cumulative emissions relative to the 2015 Certified EIR, any emissions would be mitigated through **Mitigation Measures CC-** and **SKY-AQE-4** from the 2015 Certified EIR and **Mitigation**

Measure CSM-AQE-4 from this SEIR, even with incorporation of the Project Change. NOx emissions would be offset to below the BAAQMD threshold of 54 pounds per day and would be considered less than significant. Thus, although the Modified Project would increase cumulative unmitigated emissions relative to the 2015 Certified EIR, and this increase would be exacerbated by the Project Change, with mitigation, the resulting cumulative emissions would be approximately the same as those in the 2015 Certified EIR (i.e. below the NOx threshold where exceedances occur).

Table 4-3. Mitigated Construction Criteria Pollutant Emissions from the Modified Project and Project Components at Cañada and Skyline Colleges (pounds/day)

Mitigated										
Year	**ROG**	**NO_X**	**CO**	**SO_X**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**
2016	7.4	**71.4**[a]	99.8	0.1	19.1	0.5	19.6	10.2	0.5	10.7
2017	13.1	**108.9**[a]	144.5	0.2	20.3	0.8	21.1	10.5	0.8	11.3
2018	16.3	**130.2**[a]	184.8	0.3	3.6	1.0	4.2	0.9	0.9	1.7
2019	17.7	**143.1**[a]	209.2	0.3	13.3	1.1	7.0	3.6	1.0	2.2
2020	10.2	**81.7**[a]	116	0.2	1.9	0.6	2.5	0.5	0.6	1.1
2021	7.0	**55.7**[a]	96.2	0.2	1.6	0.4	2.0	0.4	0.4	0.8
2022	6.1	50.9	79.2	0.1	1.1	0.4	1.5	0.3	0.4	0.7
2023	2.3	21.2	27	0	0.3	0.2	0.5	0.1	0.2	0.3
2024	2.1	17.3	30.3	0	0.4	0.1	0.5	0.1	0.1	0.2
2025	0.7	6.8	8.4	0	0.1	0.1	0.2	0	0.1	0.1
2026	1.1	9.6	25.2	0	0.5	0.1	0.6	0.1	0.0	0.1
2027	0.5	4.0	12.5	0	0.2	0.0	0.2	0.1	0.0	0.1
Daily Maximum	**17.0**	**143.1**[a]	**204.1**	**0.3**	**20.3**	**1.1**	**21.1**	**10.5**	**1.0**	**11.3**
BAAQMD Threshold	*54*	*54*	*--*	*--*	*BMPs*	*82*	*--*	*BMPs*	*54*	*--*
BAAQMD Threshold Exceeded?	*No*	*Yes*				*No*			*No*	

ROG = reactive organic gases; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM10 = particulate matter; PM2.5 = fine particulate matter

[a] Mitigated exhaust emissions include application of **Mitigation Measures CC-, CSM-, and SKY-AQE-1** through **-3**and **-5** from the 2015 Certified EIR**.** Implementation of **Mitigation Measures CC- and SKY-AQE-4** from the 2015 Certified EIR and **CSM-AQE-4** from this SEIR would be required to further reduce construction emissions to a less-than-significant level.

Cumulative Criteria Pollutant Emissions during Operations

The increase in operational emissions, as discussed in Section 3.2, *Air Quality*, would be negligible, because the emissions would be an order of magnitude below emissions quantified for the CSM campus in the 2015 Certified EIR. As such, the Modified Project would not result in any appreciable

increase in cumulative operational emissions beyond the cumulative operational emissions disclosed in the 2015 Certified EIR. Consequently, the contribution of the Project Change would not be cumulatively considerable.

Cumulative Cancer Risk, Non-Cancer Hazard Index and PM2.5 Exposure

The cumulative effect of the Modified Project and background sources within the vicinity of the campus are evaluated in Section 3.2, *Air Quality*. Because health risks and PM2.5 exposure are localized concerns (i.e. within 1,000 feet of the Project Change site), it would not be appropriate to include the effects from the Cañada and Skyline College campuses. Thus, the cumulative discussion of health risks and PM2.5 exposure in Section 3.2, *Air Quality*, only incorporates emissions from the Modified Project and other background sources near the CSM campus. As disclosed therein, cumulative cancer and non-cancer hazard index impacts would be less than significant but the project would contribute to cumulative PM 2.5 impacts that be significant and unavoidable, even with mitigation, at certain on-site and off-site receptors.

4.1.4 Biological Resources

Project activities have potential to affect special-status species and trees, but these impacts would be less than significant with the implementation of the mitigation measures discussed in Section 3.3.3.3, *Impacts and Mitigation Measures* of the 2015 Certified EIR.

Other projects in the region have the potential to contribute to cumulative impacts on special-status species and trees, but each is expected to implement its own mitigation to avoid or offset such effects, thereby minimizing contributions from those sources to reasonably probable future impacts. Given the limited size of the proposed facilities in light of the existing size of the campuses and of the residential development at Skyline College in light of the surrounding urbanized area, the Project is not expected to significantly contribute to the regional impacts on special-status species and trees.

Project Change activities would not result in a cumulatively considerable contribution to cumulative impacts on biological resources. The Project Change will not impact any riparian habitat, sensitive natural communities, or federally protected wetlands because these resources are absent from the Project Change Site. Ground disturbance, vegetation removal, and structure demolition activities could result in direct and indirect impacts on special-status wildlife species and native wildlife nursery sites, but these impacts would be less than significant with the implementation of the mitigation measures identified in Section 3.3.3, *Impacts and Mitigation*. Therefore, the Project Change would not contribute to cumulative population declines of special-status species on a regional basis. The Project Change, as mitigated, would also not contribute to cumulative habitat loss for potentially affected special-status species due to the limited size and urban setting of the Project Change Site. The ornamental trees and shrubs that may occasionally be used for nesting and/or foraging by special-status birds or bats are not a unique resource in San Mateo County or the San Francisco Bay Area; similar habitat is present throughout the region. Therefore, the Project, as mitigated, would not make a considerable contribution to significant cumulative impacts on any threatened, endangered, or candidate species. Similarly, the mitigation measures avoid a cumulative contribution to adverse effects on other special status species.

4.1.5 Cultural Resources

As evaluated in the 2015 Facilities Master Plan Amendment Certified EIR, cumulative impacts on historic resources were considered to be less than significant in the 2015 EIR. The 2015 master plan demolished Building 8, which was found to be ineligible for the California Register of Historical Resources and no other historic resources were impacted at the College of San Mateo.

The Project Change proposes to demolish the Building 20 Complex and construct a surface parking lot with associated landscaping and infrastructure improvements. The Building 20 Complex does not appear to be individually eligible for listing in the CRHR, and it does not appear to be a contributor to the CRHR-eligible College of San Mateo Historic District. As such, the Project Change does not change the contribution to cumulative impacts on the historic resources, and cumulative impacts on historic resources are considered less-than-significant.

The 2015 Certified EIR identified known prehistoric resource within 0.5 miles of the CSM campus, and the possibility that previously undiscovered archaeological resources, including human remains, could be encountered during construction. In combination with other foreseeable development in the identified geographic context, the Project also had the potential to encounter and damage or destroy previously unknown archaeological resources during construction. The Project was found to have a potentially significant impact on previously undiscovered archeological resources and human remains and mitigation was identified (**CSM CUL-1** and **CSM-CUL-2**) to reduce the impact to less-than-significant. The project also had the potential to contribute to the cumulative loss of archeological resources and human remains, however, the identified mitigation measures reduced the cumulative loss to less than cumulatively considerable.

The Project Change could potentially contribute to the cumulative loss of archaeological resources and human remains. Therefore, as discussed in the 2015 Certified EIR, the Project's contribution could be considerable, resulting in a potentially significant cumulative impact. **Mitigation Measure SCM-CUL-1** and **Mitigation Measure CSM-CUL-2** prescribe discovery procedures for any previously unknown archaeological resources or human remains encountered during Project construction. The discovery procedures are consistent with professional standards and, as they pertain to discovered human remains, are compliant with state law. Compliance with these mitigation measures would reduce the Project's contribution to the cumulative impact to less than cumulatively considerable and reduce the potentially significant cumulative impacts associated with the loss of archaeological and paleontological resources and the disturbance of human remains to a less-than-significant level.

Potential cumulative impacts associated with the Project Change are consistent with those evaluated in the 2015 EIR. As with the Project, there remains the possibility that previously undiscovered archaeological resources, including human remains, could be encountered during construction associated with the Project Change, and in combination with other foreseeable development in the identified geographic context, the Project Change has the potential to contribute to the loss of previously unknown archaeological resources during construction. As such, the Project Change could potentially contribute to the cumulative loss of archaeological resources and human remains, resulting in a potentially significant cumulative impact. However, compliance mitigation measures consistent with those identified for the 2015 EIR would reduce the Project Change's contribution to the cumulative impact to less than cumulatively considerable and reduce the potentially significant cumulative impacts associated with the loss of archaeological and paleontological resources and the disturbance of human remains to a less-than-significant level. Thus, the Project Changes does not

result in new or increased cumulative impacts compared to Certified EIR. The cumulative impact level is less-than-significant.

4.1.6 Greenhouse Gas Emissions

As analyzed in the 2015 Certified EIR, the cumulative impact of the Project would include the GHG emissions associated with construction and operations at the campuses of Cañada College and Skyline College in addition to the CSM campus-related emissions. The combined effect of all three campuses is evaluated, because GHGs, once emitted, become well-mixed within the atmosphere and can be transported over long distance. Consequently, the global-warming effects of the emissions at each campus, although the campuses are several miles apart, would cumulatively act in the atmosphere to affect global climate change.

The 2015 Certified EIR discusses that the project-level BAAQMD GHG thresholds are used to determine the Project's cumulative impacts (i.e. the impacts from all three campuses), because the BAAQMD, during the development of the thresholds, considered the levels at which a project's emissions would be cumulatively considerable. As such, the analysis of cumulative impacts for this SEIR, combines the emissions from the Modified Project at the CSM campus with the emissions at Cañada and Skyline College from the 2015 Certified EIR and evaluates the total emission relative to the BAAQMD GHG thresholds.

Greenhouse gas emissions are by definition analyzed in a cumulative context, as no single project would result in GHG emissions sufficient to change the atmospheric concentration of GHGs. However, individual projects can contribute to cumulative GHG emissions, which collectively globally, can result in atmospheric changes and resultant climate change effects. As discussed in Section 3.5, Greenhouse Gas Emissions, the thresholds used in this EIR are defined to address contributions to cumulative GHG emissions. As such, the focus below is on assessing the Project's collective emissions, as modified by the Project Change, and compared to the cumulative contribution thresholds.

Cumulative Greenhouse Gas Emissions during Construction

Construction of the Modified Project and the Project components at Cañada and Skyline Colleges would generate emissions of CO_2, CH_4, and N_2O from construction equipment exhaust and construction employee and haul truck vehicle exhaust. The estimated total construction emissions associated with the Modified Project and the Project components at Cañada and Skyline Colleges are disclosed in **Table 4-4**.

Table 4-4. Construction GHG Emissions from the Modified Project and Project Components at Cañada and Skyline Colleges (metric tons)

Campus	CO_2e
Cañada College	29,666
College of San Mateo	30,107
Skyline College	22,782
Total	**82,555**

CO_2e = carbon dioxide equivalent

As shown in **Table 4-4**, construction emissions would be equal to 82,555 MT of CO_2e during the construction period, which is equal to increase of less than 0.2% relative to the cumulative emissions disclosed in the 2015 Certified EIR. The construction emissions shown in the table above would only occur during the years of construction and would cease when construction activity at all campuses is completed, resulting in a combined release of 82,555 MT CO_2e.

As discussed above in this SEIR and in the 2015 Certified EIR, the BAAQMD's guidance does not identify a GHG emission threshold for construction-related emissions. Although not established as a construction threshold, cumulative construction emissions are above the BAAQMD's 1,100 metric ton CO_2e operational threshold. However, emissions will extend over the roughly 11-year construction period and when compared to the magnitude of operational GHG emissions are relatively insignificant. Because construction emissions would cease after construction is completed, as opposed to the indefinite emissions associated with a project's operations, comparing construction emissions to the operational threshold represents a conservative assessment of potential impacts. Further, as discussed in Section 3.6 of this SEIR and in Section 3.6 of the 2015 Certified EIR, **Mitigation Measures CC-GHG-1, CSM-GHG-1, SC-GHG-1**, **CC-AQE-5**, **CSM-AQE-5**, and **SC-AQE-4** would incorporates feasible BMPs and the BAAQMD basic construction measures. These measures will further reduce construction-related emissions shown in **Table 4-4**. Accordingly, because the cumulative emissions of the Modified Project and the Cañada and Skyline College components of the Project would increase by a very small amount (i.e. 0.2%) relative to the prior constructive emissions of the Project, and because a number of measures would be incorporated to reduce emissions, the Modified Project is not expected to result in a cumulatively considerable amount of construction-related emissions. This impact would be less than significant.

Cumulative Greenhouse Gas Emissions during Operations

Operation of the Modified Project and the Cañada and Skyline College components of the Project would generate GHG emissions from mobile vehicle trips, natural gas combustion, electricity consumption, landscaping activities, and emergency generator testing and use. At the Project Change site, there would also be an increase in GHG emissions relative to existing conditions due to the net removal of 127 trees. The net impact of the emissions is the sum of the operational emissions from Modified Project and the Cañada and Skyline College components of the Project minus the existing (i.e. pre-Project and pre–Project Change) emissions that occurred at the CSM, Cañada and Skyline campuses. The net operational emissions are shown in **Table 4-5**, which shows that, relative to the Project, emissions as defined in this SEIR would increase by approximately 46%. The increase in emissions is primarily the result of increased lighting energy required at the parking lot and the loss of tree-sequestration capacity.

As discussed in the Section 3.5, an efficiency-based threshold is needed to evaluate a project's consistency with the State's post-2020 reduction targets if buildout of the project would occur after 2020. Because buildout of the Modified Project and the Cañada, and Skyline College components of the Project would occur closer to 2030 than 2020, the 2030 efficiency threshold of 2.7 MT CO_2e per service population (refer to 3.5-2) is appropriate for evaluating the cumulative significance of emissions.

As shown in **Table 4-5**, the total Project emissions are expected to be approximately 307 MT CO_2e per year. At this level of annual emissions, the number of employees at all three campuses combined would need to be greater than 113 in order to be below the efficiency threshold of 2.7 MT CO_2e per

service population[1]. Because there are far more than 113 people employed at all three campuses, the cumulative increase in GHG emissions would not be considerable since it would be below 2.7 MT CO_2e per service population. The net effect of the Modified Project and the Cañada and Skyline College components of the Project is therefore expected to result in a less than significant contribution to the cumulative impact. No mitigation is required

Table 4-5. Operational Emissions from the Modified Project and Project Components at Cañada and Skyline Colleges (metric tons per year)

Campus	Total CO_2	CH_4	N_20	CO_2e
Cañada	722	2	<0.1	755
College of San Mateo	-701	< 1	<0.1	-696
Skyline	200	2	<0.1	248
Prior Cumulative Project Emissions (from 2015 Certified EIR)	*122*	*4*	*<0.1*	*210*
Total Cumulative Emissions (Modified Project + CSM, Cañada, and Skyline Components of Project)	**221**	**4**	**<0.1**	**307**
Percent Increase Relative to Prior Cumulative Emissions				*46%*
BAAQMD Threshold				*2.7 MTC02e/Service Population*
BAAQMD Threshold Exceeded?				*No (Emissions per service population would be below the threshold)*

CO_2 = carbon dioxide
CH_4 = methane
N_2O = nitrous oxide
CO_2e = carbon dioxide equivalent

Cumulative Energy Consumption during Operations

The Modified Project would increase cumulative energy consumption relative to the 2015 Certified EIR by approximately 95 MBTU per year, as discussed in **Impact CSM-GHG-5**. Relative to the cumulative energy consumption in the 2015 Certified EIR (105,790 MMBTU), an increase of 95 MMBTU would be essentially negligible (an increase of less than 0.1%). Because the increase in cumulative energy would be very small and the Modified Project and Canada and Skyline College campus components of the Project are consistent with state and local energy policies, there would not be contribution to cumulatively wasteful, inefficient, or unnecessary usage of energy. This impact would be less than significant. No mitigation is required.

4.1.7 Hydrology and Water Quality

The geographic context for the analysis of cumulative impacts associated with surface hydrology and water quality are the Marina Lagoon and San Mateo Creek sub-watersheds. The context for groundwater hydrology is the San Mateo Plain subbasin in the Santa Clara Valley groundwater basin in the larger San Francisco Bay Hydrologic Region. The Marina Lagoon and San Mateo Creek sub-watersheds are considered already built out. Consequently, potential growth would most likely occur as redevelopment and not extensive new development on vacant land or open space. The

[1] If all three campuses only employed 113 people and resulted in an emissions increase of 307 MT CO_2e, the emissions per service population would be equal to 307/113 = 2.7 MT CO_2e per service population, which is the 2030 efficiency threshold. Thus, any amount of employees above 113 would result in emissions below the threshold.

context for cumulative hydrology and water quality impacts is geographic and a function of whether impacts could affect surface water features/watersheds, the city's storm drainage system, or groundwater, each of which has its own physical boundary. This analysis accounts for anticipated cumulative growth within the potentially affected geographic area. This cumulative analysis uses the plan/projections approach to examine the effects of the Project in combination with other current projects, probable future projects, and projected future growth within the applicable geographic context in the next 20 years.

Water Quality

Development of the Project Change, combined with other past and future development or redevelopment within the potentially affected geographic area (the Marina Lagoon and San Mateo Creek sub-watersheds for surface water quality and the San Mateo Plain subbasin of the Santa Clara Valley groundwater basin for groundwater quality), could degrade stormwater quality through an increase in impervious surface area and an increase in contaminated runoff (see **Table 4-5** above, for cumulative projects in the area that could affect water quality). This could ultimately violate water quality standards, affect beneficial uses, and/or further impair 303(d)-listed waters within the Marina Lagoon and San Mateo Creek sub-watersheds (of the larger South Bay Watershed) and the San Mateo Plain subbasin of the Santa Clara Valley groundwater basin. The quality of stormwater runoff varies with surrounding land uses, topography, and the amount of impervious cover as well as the intensity (energy) and frequency of irrigation or rainfall.

Stormwater drainage can result in cumulative effects on water quality within the affected basin. Development within the vicinity of the campus could degrade stormwater quality during construction through land disturbance and during operation through an increase in impervious surface area and contaminated runoff. During construction, runoff may contain sediments and other construction materials and wastes (e.g., concrete debris), resulting from activities such as site clearing, demolition and the removal of the existing structure and pavement, grading and excavation, paving, and landscaping. During operation, runoff may contain oil, grease, and metals that accumulated in streets and parking lots as well as pesticides, nutrients, animal waste, and trash from landscaped areas. Other development could affect water quality if the land use changes, the intensity changes, and/or drainage conditions are altered to facilitate the introduction of pollutants to surface or groundwater resources, by potentially altering the associated type or amount of pollutants in stormwater runoff.

When the effects of the Project Change on water quality are considered in combination with the overall project and potential effects of other cumulative projects, there would be the potential for cumulative impacts on surface and groundwater quality. The incremental water quality impact contribution from implementation of the Project Change would be minor. The combined effects on water quality from the Project Change and other projects could result in a cumulatively significant impact. However, new projects are subject to the requirements of the SMCWPPP, the associated San Francisco Bay MS4 Permit, the construction general permit, and city municipal codes as they relate to water quality; these regulatory requirements have been designed to protect water quality. Under the campus sustainability plan, future development would not increase runoff. Additionally, development projects would be subject to an environmental review process, which would identify potential site and/or project specific water quality impacts and mitigate for any potential significant impacts. Therefore, there would be a less-than-considerable contribution to cumulative impacts on water quality as a result of Project Change implementation. The Project Change would not change the CSM Project's contribution to cumulative impacts. Thus, the Project Change would not result in a

change to the 2015 Certified EIR's impact determination for cumulative impacts on water quality, and the impact would be less-than-considerable.

Groundwater

During construction of other reasonably foreseeable development projects within the San Mateo Plain subbasin of the Santa Clara Valley groundwater basin, potential dewatering could be conducted on a one-time or temporary basis during the construction phase but would not result in a loss of water that would deplete groundwater supplies. During operation, new impervious areas can reduce the potential for groundwater recharge.

Most other reasonably foreseeable projects in the basin would be redevelopment or infill projects in highly urbanized areas where there is limited existing recharge through infiltration due to impervious area. Development in highly urbanized areas would not be expected to increase the amount of impervious surfaces substantially because this development would be occurring mostly in areas with a substantial amount of existing impervious surfaces. Therefore, groundwater recharge from percolating rainfall would not be adversely affected, and an indirect lowering of the local groundwater table is not likely to occur. However, development outside of areas with prior impervious surfaces could affect groundwater recharge, and the effects may be cumulatively significant. Implementation of the Project Change would result in a small increase in impervious surface area compared to the size of the subbasin; therefore, the Project would minimally reduce groundwater recharge. However, installation of hydromodification features would avoid net outflow of runoff from the site and allow water to infiltrate. Therefore, groundwater recharge would not be adversely affected and cumulative groundwater recharge impacts would be less than considerable.

Cumulative development could require increases in water supplies. CSM is supplied by SFPUC. Current groundwater supplies would not be affected by development at CSM. The Project would rely on surface water supplies, therefore, would not affect groundwater supplies during construction or operation. The Project's contribution to cumulative impacts on groundwater supplies could take place due to an increase in impervious area. However, landscaped and hydromodification features would continue to allow for groundwater infiltration and the use of improved ground cover with greater infiltration capacities would promote groundwater infiltration. Because of the presence of existing impervious surfaces on the project site, the Project Change Site would contribute only minimally to cumulative impacts on groundwater recharge. Therefore, impacts related to development of the Project Change would not be cumulatively considerable and would be less than significant with respect to any potential cumulative loss of groundwater recharge and supply. The Project Change would not change the CSM Project's contribution to cumulative impacts. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for cumulative impacts on groundwater recharge and supply, and the impact would be less-than-considerable.

Flooding

Cumulative development within the vicinity of SMC could increase the volume and rate of stormwater runoff. Such increases could cause localized flooding if the storm drainage capacity is exceeded or convey excess flows to overbank areas where flood storage may not be available. Generally, cumulative projects would occur in developed areas with existing impervious surfaces, and would not be expected to substantially increase the amount of new impervious surfaces.

All new development is required to handle stormwater in a manner that ensures that flooding will not increase and flood flows will not be redirected to other areas that are not currently prone to flooding. All cumulative projects would be required to include stormwater management features, such as LID measures into project designs to reduce flows to pre-project conditions. If improvements to storm drainage capacity are needed, the District would be required to coordinate with local agencies to ensure the appropriate conditions of approval for storm drainage improvements are identified. Following Project Change development, there would be an increase in impervious surfaces relative to existing conditions and a decrease in pervious surfaces. However, post-construction storm water management BMPs including permanent structural and non-structural BMPs such as permeable pavers, consideration in landscape design, and detention areas would be included. Hydromodification features would further reduce the potential for flood risks. In addition, the Project Change Site will be designed so that post-project peak runoff rates are at or below pre-project peak runoff rates. The overall effect of these design features would be a reduction in the total system stormwater runoff rate at the Project site. Therefore, the Project Change would not likely contribute to the cumulative exceedance of storm drainage capacity, and there would be a less-than-considerable contribution to the cumulative impact.

Cumulative development could increase the exposure of people and structures to flood risks. Projects that increase impervious area or result in development within low-lying areas (i.e., infill and/or near the Bay front), would be most at risk. However, the County of San Mateo and other local agencies are currently implementing requirements that will minimize increased impervious area and will promote methods for reducing flood risks with new development. Therefore, the Project would not contribute to a cumulative exposure of people and structures to risks of flooding, and there would be a less-than- considerable contribution to this cumulative impact.

Implementation of the Project would not contribute to the potential for flooding or the exposure of people and structures to flood risks. The campus is located on a hilltop and is not located within a FEMA-designated 100-year flood zone. Development that is not located in existing or future flood-prone areas would have no effect on contributing to cumulative impacts related to flooding. Due to the hilly topography, drainage improvements, and incorporation of landscaped and hydromodification features, any potential for overland flood flows would be minimized. Therefore, the risk of flooding would have a less-than-considerable contribution to the cumulative impact. Compliance by other reasonably foreseeable development projects to relevant regulations would also reduce or avoid any significant cumulative impact. The Project Change would not change the CSM Project's contribution to cumulative impacts. Thus, the Project Change would not result in a change to the 2015 Certified EIR's impact determination for cumulative impacts of flooding, and the impact would be less-than-considerable.

4.1.8 Noise

The 2015 Certified EIR concluded that construction noise at the CSM campus would be localized to the land uses in the vicinity of the Project and thus it would be very unlikely that residents affected by Project construction noise would be simultaneously affected by construction noise at other development in the area. Cumulative operational noise, as discussed in the 2015 Certified EIR, would not result in significant impacts, because it was determined that the Project would not increase traffic in the vicinity of the campus.

Cumulative impacts from the Modified Project would be consistent with the level of impacts identified for the Project for the reasoning discussed above. Because construction noise would be

localized, it would not likely overlap with the construction noise at other major development projects that would affect any of the noise-sensitive land uses in the Modified Project vicinity. For example, the nearest foreseeable project would be located approximately 1,900 feet from the Project Change site. This distance is more than three times the distance between the Project Change site and the nearest residence. As such, even in the unlikely event that construction equipment at the Project Change site operates simultaneously with equipment at the site of the nearest foreseeable project, the effect of the overlap would not affect the nearby residences in an appreciable manner. The Project Change would not contribute any considerable noise impacts with respect to construction.

The Project Change is not anticipated to result in any changes to the number of vehicle trips at the CSM campus, consistent with the 2015 Certified EIR. Additionally, the Project Change would not add any major sources of operational noise. As such, the Modified Project would not contribute to any cumulative operational noise impacts, which is the same conclusion reached in the 2015 Certified EIR.

4.1.9 Recreation

Project activities would not increase enrollment at the College of San Mateo and, therefore, would not increase demand for park and recreational facilities as discussed in Section 3.13.3.4, *Cumulative Impacts* of the 2015 Certified EIR. As a result, the Project would not contribute to any cumulative impacts on recreation.

Other projects within a two-mile radius of the Project Change Area, including several residential construction projects, have the potential to contribute to cumulative impacts on recreation, but each of these project is expected to implement its own mitigation to avoid or offset such effects, by the dedication of a portion of their site to parkland or by paying an in-lieu fee, which would minimize their contributions to future impacts on recreation.

Project Change activities would not result in cumulative impacts on recreation. The Project Change would not include residential uses or induce population growth in the area which could increase the use of neighborhood or regional parks or recreation facilities. As discussed in Chapter 3.8, *Recreation*, the Project Change would result in the loss of approximately 32,805 square feet (approximately 0.75 acre) of garden, landscaped, and open space. This minor reduction would constitute less than 1 percent of the total available garden, landscaped, and open space available on campus and would not result in an increase in the use of other park or recreational areas to the extent that substantial physical deterioration of such areas would occur. Furthermore, a large walkable area with grass, benches, sidewalks, and water features exist less than 175 yards to the west of the Project Change Area. Passive recreation could be accommodated within several other campus locations, including in the green space south of West Perimeter Road on the west side of the DaVinci Lot 3, as well as the area southeast of the Library Building, both of which have lawns, shade trees, and seating area. Therefore, the construction of the Project, inclusive of the Project Change and in conjunction with the cumulative projects in the area, would not generate cumulatively significant impacts to recreation.

4.2 Significant and Unavoidable Impacts

Section 15126.2(b) of the State CEQA Guidelines requires an EIR to describe any significant impacts that cannot be mitigated to a level of insignificance. All of the impacts associated with the Project Change would be less than significant or reduced to a less-than-significant level through the implementation of identified mitigation measures with the following exception:

- **Impact CSM-AQE-5: Expose existing sensitive receptors to substantial pollutant concentrations during construction (significant and unavoidable with mitigation).** Construction of the Project inclusive of the Project Change would result in PM2.5 concentrations in excess of BAAQMD's cumulative thresholds at an offsite park.

4.3 Significant Irreversible Environmental Changes

Section 15126(c) of the State CEQA Guidelines requires an EIR discuss the potential significant irreversible environmental changes that could result from a proposed project. This includes the use of nonrenewable resources used during the initial and continued phases of the project which could make the removal or nonuse of such resources unlikely. The EIR should discuss the primary and secondary impacts of projects (such as highway improvements which provide access to previously inaccessible area) which could commit future generation to similar uses.

The Project Change would demolish existing, unused buildings on the CSM campus and construct a surface parking lot with accompanying landscaping features and safety improvements. The demolition and construction activities would require the commitment of both renewable and non-renewable energy and material resources. Construction resources would include finite mineral resources (aggregate), fossil fuels (diesel, gasoline, asphalt binders), and water. The Project Change would remove on-site landscaping along with 151 trees, resulting in a permanent aesthetic change at the Project Change Site which would be irreversible (although replanting of approximately 24 trees will occur).

4.4 Growth-Inducing Impacts

Section 15126.2(d) of the State CEQA Guidelines requires an EIR to discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing in the surrounding environment. The analysis must also address project-related actions that, either individually or cumulatively, would remove existing obstacles to population growth.

The Project Change would demolish unused campus buildings and construct a parking lot to serve current students and faculty and would not increase staffing or enrollment at CSM. It would not induce population growth or displace either housing or people. The construction jobs required for the demolition and construction of the Project Change would be temporary and drawn from the local labor pool and would therefore not induce population growth in the area. The Project Change would therefore have no effect on overall growth at the college or in the area.

Chapter 5
Alternatives

5.1 Introduction

5.1.1 CEQA Requirements for Alternatives Analysis

According to Section 15126.6 of the CEQA Guidelines, an EIR must describe and evaluate a reasonable range of alternatives to the project or project location that would feasibly attain most of the basic project objectives and that would avoid or substantially lessen any identified significant environmental impacts of the project. An EIR is not required to present the alternatives analysis in the same level of detail as the assessment of the project, and it is not required to consider every conceivable alternative to a project. Rather, an EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision making. Additionally, the EIR must analyze the No Project alternative and must identify the environmentally superior alternative other than the No Project alternative.

5.1.2 Project Change Objectives

The District is proposing the Project Change in order to achieve the following objectives:

- *Provide parking, direct access, and loading space for the new Building 19, Emerging Technologies*. The design vision for the new Building 19 is to create an active and vibrant student- and community-serving space that embraces ever-changing advances in technology and capitalizes on the entrepreneurial mentality of Silicon Valley. The new Building 19 will be a highly flexible, industrial-looking building that includes classrooms as well as large, programmable spaces. The new Maker Space is envisioned to have roll-up garage doors to take advantage of views and the outdoor environment, and also create a more inviting space for the community. The first floor of the new Building 19 will be at the same grade as the Project Change Site. By providing parking and loading space on the Project Change Site, the District will be able to provide essential access to Building 19 for persons and deliveries, and create a flow of indoor/outdoor space that fulfills the design vision and programming objectives for Building 19.
- *Provide a staging area for the construction of the new Building 19, Emerging Technologies, that is adequately sized and located so as to minimize environmental impacts and disruptions to ongoing campus activities during Building 19 construction*. Approximately two acres are needed to provide adequate staging area for the demolition of existing Buildings 12 and 19 and construction of the new Building 19, Emerging Technologies. The Project Change Site is located directly adjacent to the Building 19 site, along the perimeter of campus, with direct access to the east side of Perimeter Road. Without the Project Change, construction staging for the Building 19 project would have to be provided across the main quad at the north end of campus, between Buildings 18 and 36, several hundred feet from the Building 19 construction site. This other location would result in greater disruption to campus activities, lengthier travel for construction vehicles and equipment, higher noise levels, and potential safety impacts to pedestrians crossing the north quad compared to the Project Change Site.

- *Expand parking options on the east side of the campus to better serve current students, staff and the community/visitors.* With student services (admission, counseling, financial aid, etc.) relocated to Building 10 in 2012, more parking spaces are needed on the east side of the CSM campus. Building 10 is currently served by two small lots: Bulldog Lot 9 (Staff and Student Parking) and Forum Lot 8 (Disabled and Visitor Parking). These two lots currently provide 287 spaces and are usually full. The construction of 208 parking stalls at the Project Change Site would address this need by providing parking access closer to the much-utilized Building 10 for students, staff and the community/visitors.
- *Improve access for disabled students*. The Project Change Site contains buildings and brick pathways which are non-ADA compliant. The Project Change Site is also situated one level below the central portion of the campus with access currently provided via an outdoor staircase. As part of the new Building 19 project, the staircase would be removed and the first floor of Building 19 would be constructed at the same grade as the Project Change Site. Direct access to the upper floors of Building 19 would be provided via elevators. The Project Change would remove existing buildings and brick pathways and construct a new parking lot with seven handicapped accessible stalls that would have direct access to the Building 19 elevators, thereby improving parking accessibility and mobility for disabled students.
- *Ensure safety of students and faculty by removing unsafe structures*. The programs and courses that were previously located in Building 20 were discontinued or relocated to other campus buildings in 2011 or earlier, and the buildings are no longer used. The District's facilities condition database indicates that all building systems in the Building 20 Complex are beyond their service life, except for the floor slab, exterior walls, and roof. The Facilities Condition Index (FCI) for Building 20 is 68.36 percent, which indicates it is in very poor condition.[1] In addition, Building 20 and the greenhouse are known to contain hazardous building materials (i.e., asbestos). For these reasons, these structures have been underutilized in recent years. The Project Change would remove unused, unsafe structures which are over 50 years old, in a state of disrepair, and which have not been utilized by campus programs in several years.

5.1.3 Significant Impacts of the Project Change

Based on the analysis provided in the various Chapter 3 sections of this SEIR, the Project Change would have the following significant and unavoidable impact:

- **Impact CSM-AQE-5: Expose existing sensitive receptors to substantial pollutant concentrations during construction (significant and unavoidable with mitigation).** Construction of the Project inclusive of the Project Change would result in Particulate Matter 2.5 microns and smaller (PM2.5) concentrations in excess of Bay Area Air Quality Management District's(BAAQMD's) cumulative thresholds at an offsite park.

[1] An FCI represents the ratio of the cost to correct a facility's deficiencies to the current replacement value of the facility. For example, if a building's replacement value is $1,000,000 and the cost of correcting its' existing deficiencies is $100,000, the building's FCI is $100,000 ÷ $1,000,000; or 0.10 or 10 percent. The larger the FCI, the poorer condition of the facility. General industry guidelines are: 0 - 5% is good, 5 - 10% is fair, and greater than 10% is poor. (See Facility Utilization Space Inventory Option Net (FUSION) dictionary at http://cccfusion.org/UserResources/Dictionary/tabid/478/FilterID/259/Default.aspx. FUSION is part of a state-wide program managed by the Foundation for California Community Colleges (FCCC) and the California Community Colleges Chancellor's Office (CCCCO) with the goal to streamline the process for funding, managing and completing community college facility projects.)

5.1.4 Overview of Alternatives Considered

In addition to the required No Project Alternative, four alternatives to the Project Change were considered initially, including three onsite alternatives and one offsite alternative. To determine which of the alternatives should be evaluated in the SEIR, each alternative was screened to determine whether it would meet most of the project objectives, reduce any of the potentially significant impacts identified in the SEIR, and be potentially feasible.

The ability to meet most of the project objectives was determined based on whether the alternative would meet the fundamental project purpose and objectives. Feasibility was determined by cost and availability of suitable off-site locations.

This chapter provides a description of the alternatives considered but rejected for further review, followed by an analysis of the No Project Alternative and two onsite alternatives, the Building Demolition Alternative and the Reduced Parking Alternative.

5.2 Alternatives Considered but Rejected

5.2.1 Onsite Alternatives

One onsite alternative was considered but rejected - the Underground Parking Alternative. Under this alternative, the Building 20 Complex and North and South Gardens would be demolished and underground parking and associated improvements constructed, including aboveground landscaping. The underground parking would offer approximately the same number of parking spaces as proposed under the Project Change. Aboveground improvements would include landscaped gardens along with storm drainage, lighting, signage, and security improvements.

This alternative would meet all Project Change objectives but would not reduce or eliminate the significant construction air quality impact. Further, this alternative was determined to be infeasible because of the expense of constructing an underground parking structure as well as the increased impacts to air quality, greenhouse gas emissions, noise, geology and soils, and hydrology and water quality that would occur during construction as a result of the extensive grading and excavation that would be required.

5.2.2 Offsite Alternatives

One offsite alternative was considered but rejected - the Offsite Parking Alternative.

5.2.2.1 Offsite Parking Alternative

The Offsite Parking Alternative would locate a parking lot with associated improvements at a remote location off campus. Associated improvements, as with the Project Change, would include aboveground landscaping, storm drainage, lighting, signage, and security improvements. The Building 20 Complex would not be demolished. In addition, Building 20, the greenhouse, the lath house, and the North and South Gardens would continue in their current states. The buildings would continue to need minimal maintenance to maintain safety, and they would continue to occupy space on campus without providing use. The gardens would continue to need maintenance. Existing parking available at the site would remain at its current limited level.

Over time, the structures in the Building 20 Complex, even with maintenance, would continue to age because they would not be utilized. Eventually, the structures would be likely to become unsafe. Because Building 20 is known to house hazardous building materials, potential release of these environmental toxins could pose an environmental hazard.

This alternative was considered because it would reduce the Project Change's impact on visual character and eliminate the need for mitigation by maintaining onsite uses in their current states. However, it would not avoid the significant impact on air quality during construction since construction of a parking lot would still occur within the air basin. Further, this alternative does not meet any of the Project Change objectives.

In addition, this alternative was determined to be infeasible because of the expense; funds would need to be made available for purchase of land, and a shuttle service would need to be provided to move people from the parking lot to the campus.

Even if this alternative were to include demolition of the Building 20 buildings, which would remove the safety issue, the issues with an off-site parking lot would still face the same infeasibility and would not be consistent with project objectives.

5.3 Alternatives Selected for Further Review

5.3.1 No Project Alternative

The No Project Alternative assumes that the Building 20 Complex would not be demolished and that the parking lot and associated improvements would not be constructed. Building 20, the greenhouse, the lath house, and the North and South Gardens would continue to exist in their current states. The buildings would continue to need minimal maintenance to maintain safety, and they would continue to occupy space on campus without providing use. The gardens would continue to need maintenance. Existing parking available at the site would remain at its current level.

Over time, the structures in the Building 20 Complex, even with maintenance, would continue to age because they would not be utilized. Eventually, the structures would be likely to become unsafe. Because Building 20 is known to house hazardous building materials, potential release of these environmental toxins could pose an environmental hazard.

This alternative does not meet any of the Project Change objectives, including:

- Provide parking, direct access, and loading space for the new Building 19, Emerging Technologies.
- Provide a staging area for the construction of the new Building 19, Emerging Technologies, that is adequately sized and located so as to minimize environmental impacts and disruptions to ongoing campus activities during Building 19 construction.
- Expand parking options on the east side of the campus to better serve current students, staff and the community/visitors.
- Improve access for disabled students.
- Ensure safety of students and faculty by removing unsafe structures.

5.3.2 Building Demolition Only Alternative

The Building Demolition Only Alternative assumes that Building 20, the greenhouse, and the lath house would be demolished but the parking lot and associated improvements would not be constructed. The former building area would be seeded to provide a larger grassy open area or could potentially provide an opportunity for revegetation with native species. The North and South Gardens would continue to exist in their current states. The gardens and the open space would continue to need maintenance and improvements to repair or replace deteriorating and uneven pathways. Existing parking available at the Project Change Site would remain at its current level.

This alternative does not meet the following Project Change objectives:

- Provide parking, direct access, and loading space for the new Building 19, Emerging Technologies.
- Provide a staging area for the construction of the new Building 19, Emerging Technologies, that is adequately sized and located so as to minimize environmental impacts and disruptions to ongoing campus activities during Building 19 construction.
- Expand parking options on the east side of the campus to better serve current students, staff, and the community/visitors.
- Improve access for disabled students.

This alternative does meet the following Project Change objectives:

- Ensure safety of students and faculty by removing unsafe structures.

5.3.3 Reduced Parking Alternative

The Reduced Parking Alternative assumes that Building 20, the greenhouse, the lath house, and a portion of the South Garden would be demolished for construction of a smaller parking lot than that proposed under the Project Change. Specifically, lots 20, 20A, and 20M would be combined into a single larger parking lot. To accomplish this, the Building 20 Complex would be demolished and a 1.4-acre parking lot containing approximately 180 parking spaces (replacing the existing 30–40 parking spaces) and associated improvements would be constructed. In addition to landscaping, described below, improvements would include storm water drainage, catch basins, and storm water treatment facilities; lighting, signage, and security. The parking lot would be located in the space currently occupied by the buildings and on adjacent space currently occupied by approximately 55 percent of the South Garden and 20 percent of the North Garden.

Approximately 45 percent of the South Garden, including the semi-mature non-native *Metasequoia glyptostroboides* (i.e., dawn redwood) tree and lawn area surrounding it, would be retained and improved with additional plantings. Additionally, over 80 percent of the North Garden would be retained and improved for outdoor education use by science classes. The Reduced Parking Alternative would require the removal of some existing trees, plants, and landscaping elements, but the amount of removed open space would be reduced compared to the Project Change.

This alternative would not meet the Project Change objective to provide a staging area for the construction of the new Building 19, Emerging Technologies, that is adequately sized and located so as to minimize environmental impacts and disruptions to ongoing campus activities during Building 19 construction. As discussed in Section 2.3 in Chapter 2, Project Description, based on the District's

past and current practices on other similar construction projects, approximately two acres are needed to provide adequate staging area for the demolition of existing Buildings 12 and 19 and construction of the new 53,250-sf Building 19, Emerging Technologies. For example, the staging area for the current construction of the 55,000-sf Building B23 at Cañada College is approximately 97,500 sf (2.24 acres) (Lo pers. comm). The smaller, 1.4-acre parking lot in the Reduced Project Alternative would not provide adequate staging area for construction equipment, demolition debris, and building materials associated with the Building 19, Emerging Technologies project.

This alternative meets the other Project Change objectives; however, the objectives to provide parking, direct access, and loading space for the new Building 19, Emerging Technologies, and better serve current students and staff by expanding parking options on the east side of the campus, would be met to a lesser degree as compared to the Project Change as proposed.

5.4 Impact Analysis

The environmental impact analysis focuses on the same subjects analyzed for the Project Change to provide a meaningful comparison of impacts. Those subjects are only those where the Project Change has a potential to result in a significant impact. See further discussion in Chapter 1.

5.4.1 No Project Alternative

5.4.1.1 Aesthetics

Under the No Project Alternative, all structures within the Project Change Site would remain. The garden areas, including the North and South Garden, would be not be removed and the 151 on-site trees would be preserved. The condition of the Building 20 Complex structures would likely continue to degrade because of non-use and age. However, the visual elements that are valued by viewers with high sensitivity to the Project Change Site, which include unique botanical specimens and commemorative plaques, would be retained and mitigation would not be required to reduce impacts to these features. The No Project Alternative would not change the current visual character of the project site and therefore would have no impact on aesthetics. As such, the No Project Alternative would be less than the Project Change's impact to the visual character of the Project Change Site, which would be less than significant with mitigation.

5.4.1.2 Air Quality

The No Project Alternative would not generate criteria air pollutants during construction. Therefore, the No Project Alternative would avoid the Project Change's significant air quality impact during construction. Similar to the Project Change, this alternative would not result in increased mobile source emissions from vehicle trips since no changes to student enrollment or staffing could occur at CSM. While the Project Change would result in limited criteria pollutant air emissions from area sources (e.g., landscaping equipment, painting), no such increases would occur under the No Project Alternative. Therefore, this alternative would have no impact on air quality during operation, representing a lesser impact than the Project Change.

5.4.1.3 Biological Resources

The No Project Alternative would not result in any changes in land cover, or shifts in current or future activity within the Project Change Site. The Project Change Site does not contain any riparian habitat, sensitive natural communities, or federally protected wetlands; therefore, no impact would occur on these resources. Under the No Project Alternative, there would be no direct or indirect impacts on special status species, in comparison to the Project Change which would require mitigation measures from the 2015 Certified EIR to reduce impacts to protected species, including nesting raptors and bats, to a less than significant level. The No Project Alternative would not change any flora or fauna habitats. Therefore, this alternative would have no impact on biological resources, representing a lesser impact than the Project Change.

5.4.1.4 Cultural Resources

The No Project Alternative would retain all landscapes and building structures on the Project Change Site in their current state, and would have no potential to uncover previously unknown archaeological or paleontological resources. Because there would be no change to the Project Change Site with this alternative, there would be no impact on cultural resources, representing a lesser impact than the Project Change.

5.4.1.5 Greenhouse Gases and Energy

Under the No Project Alternative, there would be no increase in GHG emissions or energy usage during construction or operation. No vegetation or trees would be removed, and the Project Change Site's ability to provide carbon sequestration would not change. There would be no construction and associated emissions for the No Project Alternative as compared to construction emissions that would occur under the Project Change. Energy usage on the Project Change Site would not change under the No Project Alternative in contrast to the minimal increase that would occur with the Project Change. Thus, the No Project Alternative would have no impact on GHG emissions and energy usage, representing a lesser impact than the Project Change.

5.4.1.6 Hydrology and Water Quality

Under the No Project Alternative, impervious surface area, stormwater flow rates, and drainage would remain unchanged. Under this alternative all vegetated landscapes and trees would remain on the Project site, compared to the Project Change. The impervious surface area would not increase, in contrast to the Project Change, and there would be no increased runoff. Therefore, the No Project Alternative would have no impact on hydrologic resources and water quality, representing a lesser impact than the Project Change.

5.4.1.7 Noise

The No Project Alternative would not generate additional noise during construction activities, in contrast to the Project Change. There would be no long-term noise impact on the Project Change Site, as opposed to the Project Change which would result in a minimal increase in operational noise due to increased onsite activity. Therefore, the No Project Alternative would have no impact on noise, representing a lesser impact than the Project Change.

5.4.1.8 Recreation

The No Project would not alter the existing recreational and open space uses on the Project Change Site, including the North and South Gardens. No additional demand for parks or recreational facilities would be generated. Therefore, the No Project Alternative would have no impact on recreational resources, representing a lesser impact than the Project Change.

5.4.2 Building Demolition Only Alternative

5.4.2.1 Aesthetics

Construction activities associated with the Building Demolition Only Alternative would introduce heavy equipment and staging areas into viewsheds of all viewer groups during construction activities; however, viewers are accustomed to seeing these elements as a result of other redevelopment activities on campus and in the surrounding vicinity and with mitigation these impacts would be less than significant, similar to the Project Change. No designated state scenic highways are located within the vicinity of the Project Change Site nor is the site viewable from any County- or City-designated scenic roadways. Unlike the Project Change, this alternative would retain the North and South Gardens and preserve the majority of the on-site trees, shrubs, and botanical specimens which are of aesthetic interest to viewers. Mitigation would likely still be required to relocate specimens of visual interest if they are removed (e.g., plantings immediately adjacent to Building 20). Notwithstanding, impacts on the existing visual character of the site would be reduced compared to the Project Change. No new lighting would be required for this alternative. Overall, this alternative would have reduced impacts on visual aesthetics than the Project Change.

5.4.2.2 Air Quality

Similar to the Project Change, the Building Demolition Only Alternative would not induce an increase in either population, employment growth, nor would it increase vehicle trips to the campus; therefore, operational air quality impacts resulting from mobile emissions would be less than significant. Area source emissions would be minimal under the Project Change and would be less with this alternative. The Building Demolition Only Alternative would result in reduced construction-related air quality impacts than the Project Change, though mitigation would still be applicable. Under the Building Demolition Only Alternative, the Project would continue to have a significant impact with respect to exposing sensitive receptors to particulate matter pollution during building demolition. Therefore, significant construction air quality impacts would be reduced, but not avoided, under the Building Demolition Only Alternative.

5.4.2.3 Biological Resources

The Building Demolition Only Alternative would not remove landscaping or tree except any directly next to buildings to be removed. This alternative would still require implementation of previously adopted mitigation from the 2015 Certified EIR to reduce impacts to any adjacent special-status wildlife species (i.e., nesting raptors and bats) but overall biological impacts would be much less than the Project Change.

5.4.2.4 Cultural Resources

The removal of the Building 20 Complex buildings would not cause a substantial adverse change in the significance of an historical resource and effects would be less than significant under this alternative. This alternative may require sub-grade excavation to remove utilities during building demolition which could have a similar potential to uncover previously unknown archaeological resources, paleontological resources, or human remains during construction, resulting in impacts that would be less than significant with mitigation, similar to the Project Change.

5.4.2.5 Greenhouse Gases and Energy

Similar to the Project Change, the Building Demolition Only Alternative would not induce an increase in either population or employment growth in the region, nor would it increase vehicle trips to the campus; therefore, operational GHG impacts for this alternative would be less than significant. The Building Demolition Only Alternative would require less grading, fill, and paving, and therefore a reduced level of construction equipment operation than the Project Change. As such, the Building Demolition Only Alternative would result in reduced construction-related GHG emissions, though mitigation would still be applicable and impacts would be less than significant with mitigation.

5.4.2.6 Hydrology and Water Quality

Impacts under the Building Demolition Only Alternative would be less than those for the Project Change on hydrology and water quality. Because the Building Demolition Only Alternative would retain all of the North and South Gardens, it would result in less impervious surface area than the Project Change, which would allow for more stormwater infiltration than the Project Change. In addition, this alternative would not increase parking and thus would have less generation of vehicle-related polluted runoff at this site. Other impacts would be similar to the Project Change as erosion-control measures, spill prevention plan, safety plan, and design features would still be required resulting in impacts that are less than significant with mitigation.

5.4.2.7 Noise

Noise impacts from the Building Demolition Only Alternative would be generally the same as those of the Project Change during building removal. Construction noise would be approximately the same, because the same three loudest pieces of equipment could operate simultaneously on maximum activity days, as was assumed for the Project Change. Noise-reduction construction practices would still be required and County noise standards would be followed, resulting in impacts that would be less that significant with mitigation. However, the duration of construction noise would be far less, given the reduced amount of grading, fill due to retention of the Gardens.

Operational noise impacts would also be nearly identical to the Project Change, because there would still be no major sources of operational noise sources for the Building Demolition Only Alternative other than vehicles traveling at very low speeds within the existing parking lot, which would not be audible at any noise-sensitive land uses. The reduced number of parking spaces (and corresponding vehicles traveling to and from the Project Change Site) likely would not result in an audible difference in operational noise levels. The increased amount of open space with this alternative may generate more human activity compared to the Project Change, but any differences would be

anticipated to be minor and intermittent and would not result in appreciable changes to operational noise levels compared to the Project Change.

5.4.2.8 Recreation

Impacts on Recreation under the Building Demolition Only Alternative would be less, than of the Project Change. Because the Building Demolition Only Alternative would retain the North Garden and the South Garden (including the dawn redwood tree and lawn area surrounding it), it would allow for more passive recreation than the Project Change. However, as stated in Chapter 3.8, *Recreation*, there are other available spaces for passive recreation on campus and the on-site gardens represent a minimal percentage of the total garden and landscaped area available at CSM. Due to the additional open space in the former building location, this alternative would have a greater beneficial impact than the Project Change.

5.4.3 Reduced Parking Alternative

5.4.3.1 Aesthetics

Similar to the Project Change, the construction activities associated with the Reduced Parking Alternative would introduce heavy equipment and staging areas into viewsheds of all viewer groups during construction activities; however, viewers are accustomed to seeing these elements as a result of other redevelopment activities on campus and in the surrounding vicinity and with mitigation these impacts would be less than significant, similar to the Project Change. No designated state scenic highways are located within the vicinity of the Project Change Site nor is the site viewable from any County- or City-designated scenic roadways. Unlike the Project Change, the landscaping removal associated with the Reduced Parking Alternative would retain significant portions of the gardens and preserve trees, shrubs, and botanical specimens which are of aesthetic interest to viewers, although mitigation likely would still be required to address impacts to those specimens and plaques that are removed. As a result, impacts on the existing visual character of the site would be less than significant with mitigation but less intense than under the Project Change.

As with the Project Change, the Reduced Parking Alternative could remove structures and landscaping and replace them with a parking lot which could increase the amount of glare resulting from light reflected off car windows; however, as this alternative would include much of the existing perimeter vegetation, including the coniferous trees and shrubs on the east side of the site near Perimeter Road, the impact would be less intense than under the Project Change. Similar to the Project Change, parking lot lighting associated with the Reduced Parking alternative could affect sensitive residential receptors and proper design and construction measures would need to be applied for this impact to be less than significant.

5.4.3.2 Air Quality

Similar to the Project Change, the Reduced Parking Alternative would not induce an increase in either population, employment growth, nor would it increase vehicle trips to the campus; therefore, operational air quality impacts resulting from mobile emissions would be less than significant. Area source emissions would be minimal under the Project Change and would be expected to be comparable under the Reduced Parking Alternative. The Reduced Parking Alternative would retain approximately 45 percent of the South Garden and over 80 percent of the North Garden and therefore require less grading, fill, and paving than the Project Change. As such, the Reduced Parking

Alternative would likely result in reduced construction-related air quality impacts than the Project Change, though mitigation would still be applicable. Under the Reduced Parking Alternative, the Project (inclusive of the parking lot) would continue to have a significant impact with respect to exposing sensitive receptors to particulate matter pollution during construction. Therefore, significant construction air quality impacts would be reduced, but not avoided, under the Reduced Parking Alternative.

5.4.3.3 Biological Resources

The Reduced Parking Alternative includes the partial removal of landscaping and open space on the Project Change Site compared to the full removal of vegetation and open space that is proposed under the Project Change. Although landscaping removal would be reduced, this alternative would still require the implementation of previously adopted mitigation from the 2015 Certified EIR to reduce impacts to special-status wildlife species (i.e., nesting raptors and bats), although the intensity of impacts would be reduced.

5.4.3.4 Cultural Resources

The Reduced Parking Alterative would have effects on cultural resources similar to those of the Project Change. The removal of the Building 20 Complex buildings and portions of the North and South Gardens would not cause a substantial adverse change in the significance of an historical resource and effects would be less than significant under this alternative. This alternative would require similar utility trenching activities as the Project Change and would have a similar potential to uncover previously unknown archaeological resources, paleontological resources, or human remains during construction, resulting in impacts that would be less than significant with mitigation, similar to the Project Change.

5.4.3.5 Greenhouse Gases and Energy

Similar to the Project Change, the Reduced Parking Alternative would not induce an increase in either population or employment growth in the region, nor would it increase vehicle trips to the campus; therefore, operational GHG impacts for this alternative would be less than significant. The Reduced Parking Alternative would retain approximately 45 percent of the South Garden and over 80 percent of the North Garden, requiring less grading, fill, and paving, and therefore a reduced level of construction equipment operation than the Project Change. As such, the Reduced Parking Alternative would likely result in reduced construction-related GHG emissions, though mitigation would still be applicable and impacts would be less than significant with mitigation.

5.4.3.6 Hydrology and Water Quality

Impacts under the Reduced Parking Alternative would be similar to, but slightly less than those for the Project Change on hydrology and water quality. Because the Reduced Parking Alternative would retain pervious portions of the North and South Gardens, it would likely result in less impervious surface area than the Project Change, which would allow for more stormwater infiltration than the Project Change. Other impacts would be similar to the Project Change as erosion-control measures, spill prevention plan, safety plan, and design features would still be required resulting in impacts that are less than significant with mitigation.

5.4.3.7 Noise

Noise impacts from the Reduced Parking Alternative would be generally the same as those of the Project Change. Construction noise would be approximately the same, because the same three loudest pieces of equipment could operate simultaneously on maximum activity days, as was assumed for the Project Change. Noise-reduction construction practices would still be required and County noise standards would be followed, resulting in impacts that would be less that significant with mitigation. Operational noise impacts would also be nearly identical to the Project Change, because there would still be no major sources of operational noise sources for the Reducing Parking Alternative other than vehicles traveling at very low speeds within the parking lot, which would not be audible at any noise-sensitive land uses. The reduced number of parking spaces (and corresponding vehicles traveling to and from the Project Change Site) likely would not result in an audible difference in operational noise levels. The increased amount of open space on the Project Change Site may generate more human activity under the Reduced Parking Alternative compared to the Project Change, but any differences would be anticipated to be minor and intermittent and would not result in appreciable changes to operational noise levels compared to the Project Change

5.4.3.8 Recreation

Impacts on Recreation under the Reduced Parking Alternative would be similar to, but slightly less, than of the Project Change. Because the Reduced Parking Alternative would retain nearly 80 percent of the North Garden and 45 percent of the South Garden (including the dawn redwood tree and lawn area surrounding it), it would allow for more passive recreation at the Project Change Site than the Project Change. However, as stated in Chapter 3.8, *Recreation*, there are other available spaces for passive recreation on campus and the on-site gardens represent a minimal percentage of the total garden and landscaped area available at CSM. Therefore, impacts on recreation resulting from this alternative would be less than significant, but less than those of the Project Change.

5.5 Comparison of Impacts

Table 5-1 compares the significant impacts of the Project Change, No Project Alternative, Building Demolition Alternative, and Reduced Parking Alternative in two ways. First, for each impact studied, it identifies the level of impact for the Project Change and each alternative (e.g., no impact, less-than-significant impact, less-than-significant impact with mitigation, significant and unavoidable impact, or significant and unavoidable impact with mitigation). Second, for each alternative and each impact, it indicates whether the resulting degree of impact would be similar to, less than, or greater than the Project Change impact. In some cases, although both the Project Change and alternative would result in the same level of impact, the degree of that impact might differ.

Table 5-1. Comparison of Impacts

Impact	Project Change	Building Demolition Only Alternative	Reduced Parking Alternative	No Project Alternative
Aesthetics	LSM	LSM (less)	LSM (less)	NI (less)
Air Quality	SU	SU (less)	SU (less)	NI (less)
Biological Resources	LSM	LSM (less)	LSM (less)	NI (less)
Cultural Resources	LSM	LSM (similar)	LSM (similar)	NI (less)
Greenhouse Gases and Energy	LSM	LSM (less)	LSM (less)	NI (less)
Hydrology and Water Quality	LSM	LSM (less)	LSM (less)	NI (less)
Noise	LSM	LSM (less)	LSM (similar)	NI (less)
Recreation	LS	Greater Beneficial Impact	LS (less)	NI (less)

NI (no impact); LS (less than significant); LSM (less than significant with mitigation); SU (significant and unavoidable); PSU (potentially significant and unavoidable); Similar (similar impact as the project); Less (less impact than the project); Greater (greater impact than the project); Greater Beneficial Impact (greater beneficial impact than the project).

5.6 Environmentally Superior Alternative

Section 21002 of the State CEQA Guidelines requires lead agencies to adopt feasible mitigation measures or feasible environmentally superior alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible. CEQA also requires that an environmentally superior alternative be identified among the alternatives analyzed. In general, the environmentally superior alternative is the project that avoids or substantially lessens some or all of the significant and unavoidable impacts of the proposed project (CEQA Guidelines Section 15126.6).

Comparing the extent to which the alternatives would reduce or avoid the significant impacts of the Project Change, the No Project Alternative would be the environmentally superior alternative because it would avoid the Project Change's significant impact on air quality. While the No Project Alternative would be feasible in the sense that there is no current parking shortage overall on the CSM campus that is driving the need for the 208 spaces proposed under the Project Change, it would not achieve any of the Project Change objectives. Specifically, the No Project Alternative would not provide construction staging, parking, direct access, and loading space for the new Building 19, Emerging Technologies, would not expand parking options on the east side of the campus to better serve current students, staff, and community visitors at Building 10, nor would it improve access for disabled students. The No Project Alternative also would not ensure safety of students and faculty by removing unsafe structures. It is also noted that because it would not provide an adjacent staging area for Building 19 construction, the No Project Alternative would represent a trade-off in environmental impacts compared to the Project Change. Without the Project Change, construction staging for the Building 19 project would have to be provided across the main quad at the north end of campus, between Buildings 18 and 36. This area is only accessible from the opposite end of Perimeter Road on the west side of campus. Staging at this location would disturb existing improvements, require lengthier access points/paths of travel for construction equipment and persons navigating around construction areas, generate more noise in the core of campus which

would disturb student learning, and create potential safety impacts to pedestrians who need to access academic buildings from the core campus and quad.

In accordance with CEQA Guidelines Section 15126.6, because the No Project Alternative is the environmentally superior alternative, this SEIR must also specify which of the other alternatives would be environmentally superior.

The Building Demolition Only Alternative would only meet one of the five fundamental project objectives. As such, it cannot be considered a feasible alternative as it does not meet most of project objectives. Furthermore, it would not eliminate the Project Change's significant impact on air quality.

The Reduced Parking Alternative would meet four of the five fundamental project objectives and would reduce, but would not eliminate, the Project Change's significant impact on air quality. Therefore, the Reduced Parking Alternative is considered the environmentally superior alternative. Because there is no current parking shortage overall on the CSM campus that is driving the need for the 208 spaces proposed under the Project Change, the Reduced Parking Alternative is considered potentially feasible to implement. The Reduced Project would be consistent with all of the Project Change objectives, but to a lesser extent than the Project Change. In particular, the Reduced Project Alternative would substantially reduce the District's ability to provide additional parking for the much-utilized Building 10. Also, like the other alternatives, the Reduced Project Alternative would represent a trade-off in environmental impacts compared to the Project Change because it would be too small to provide adequate construction staging area adjacent to the new Building 19, and therefore it would shift noise, construction traffic, and potential pedestrian safety impacts resulting from Building 19 construction to a more heavily used area of campus, creating greater disruption of student learning and other campus activities during construction

Chapter 6
List of Preparers

6.1 Lead Agency

San Mateo County Community College District

- Thomas Lo, Project Manager II
- Gwen Alldredge, Project Coordinator I

6.2 EIR Preparer—ICF

Name	Job Title	Technical Contribution	Years of Experience	Education
Rich Walter	Project Director	Senior Review	25	M.A., International Relations/Energy, Environment, Science and Technology; B.A., History
Heidi Mekkelson	Project Manager	Project Management Senior Technical Review	15	B.S., Environmental Studies, Biology Emphasis
Diana Roberts	Deputy Project Manager	Deputy Project Management; Introduction to Analysis, Alternatives	13	M.S., Environmental Studies, in prep. M.A., Linguistics B.S., Applied Psychology
Patrick Maley	Project Coordinator	Project Coordination; Recreation; Project Description; Introduction; Alternatives; Recreation	10	M.P.A, Public Administration B.A., Humanities
Torrey Edell	Botanist	Biological Resources	14	B.S., Ecology and Systematic Biology
Matthew Ricketts	Senior Wildlife Biologist	Senior Review	16	M.S., Biology/Applied Ecology B.S., Natural Resources and Environmental Science
Ross Wilming	Wildlife Biologist	Biological Resources	14	B.S., Biologist
Gretchen Hilyard Boyce	Senior Preservation Planner	Cultural Resources	10	M.S. Historic Preservation B.A., Architectural History;

Name	Job Title	Technical Contribution	Years of Experience	Education
Jonathon Rusch	Architectural Historian	Cultural Resources	5	M.A. Historical Preservation Planning B.A. Geography
J. Tait Elder	Senior Archaeologist	Cultural QA/QC	14	M.A., Archaeology B.A., Anthropology
Lily Arias	Archaeologist	Cultural Resources	9	M.A., Cultural Resources Management B.A., History/Anthropology
January Tavel	Architectural Historian	Cultural Resources	9	M.H.P., Historic Preservation B.A., Journalism
Katrina Sukola	Water Quality Specialist	Hydrology and Water Quality	12	M.S., (Aquatic) Chemistry B.S., Environmental Chemistry
Cory Matsui	Air Quality, Climate Change, and Noise Specialist	Noise, Greenhouse Gas Emissions/Energy, Air Quality	6	B.A., Atmospheric Science
David Buehler, P.E.	Senior Noise Specialist	Senior Review	35	B.S., Civil Engineering
Jennifer Ban, PLA	Professional Landscape Architect/Visual Resource Specialist	Aesthetics	18	B.L.A., Landscape Architecture
Tim Messick	Senior Graphic Designer	Visual Simulations	35	M.A., Biology B.A., Botany
Matthew McFalls	Air Quality and Climate Change Specialist	Health Risk Assessment	10	M.S., Geography B.A., Public Administration
Mathew Sisneros	Cultural Resource Specialist/GIS Technician	GIS Assistance	3	B.S., Anthropology, GIS Certificate
Caroline Vurlumis	Environmental Planner	List of Preparers, Alternatives	2	B.A., Environmental Analysis

6.3 Other Technical Consultants

Hexagon Transportation Consultants, Inc.

- Gary Black, Principal
- Kai-Ling Kuo, Transportation Engineer

Chapter 7
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7.1 Chapter 1, Introduction

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Appendix A

Notice of Preparation

SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT

3401 CSM Drive, San Mateo, CA 94402
P: (650) 574-6550 F: (650) 574-6574
www.smccd.edu

January 19, 2018

To: State Agencies
Responsible Agencies
Local and Public Agencies
Trustee Agencies
Interested Parties

NOTICE OF PREPARATION OF A SUBSEQUENT ENVIRONMENTAL IMPACT REPORT TO THE SAN MATEO COMMUNITY COLLEGE DISTRICT 2015 FACILITIES MASTER PLAN AMENDMENT EIR (STATE CLEARINGHOUSE #2015052007)

COLLEGE OF SAN MATEO BUILDING 20 DEMOLITION

As the Lead Agency, the San Mateo County Community College District (District) will prepare a Subsequent Environmental Impact Report (SEIR) to the District's San Mateo Community College District 2015 Facilities Master Plan Amendment EIR (Certified EIR) and would like your views regarding the scope and content of the environmental information to be addressed in the SEIR. This SEIR may be used by your agency when considering approvals for this project. The project description, location, and a brief summary of potential environmental effects are attached.

Written comments will be accepted until **February 18, 2018** at **5:00 pm**; however, we would appreciate an earlier response, if possible. Please identify a contact person, and send your comments to:

San Mateo County Community College District
Attention: Mitchell Bailey
3401 CSM Drive
San Mateo, CA 94402
(650) 574-6560
baileym@smccd.edu

Mitchell Bailey
Chief of Staff
Office of the Chancellor

NOTICE OF PREPARATION OF A SUBSEQUENT ENVIRONMENTAL IMPACT REPORT TO THE SAN MATEO COMMUNITY COLLEGE DISTRICT 2015 FACILITIES MASTER PLAN AMENDMENT EIR

COLLEGE OF SAN MATEO BUILDING 20 DEMOLITION

A. INTRODUCTION

The purpose of a Subsequent Environmental Impact Report (SEIR) is to inform decision makers and the general public of the environmental effects associated with major changes to a previously certified EIR. The SEIR process is intended to provide environmental information sufficient to evaluate major changes and the potential for new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

In December 2015, the District certified a Final Environmental Impact Report (Certified EIR) for the 2015 Facilities Master Plan Amendment Project, which included planned improvements at each of the District's three campuses—Cañada College, College of San Mateo (CSM), and Skyline College. At CSM, the Certified EIR analyzed the following improvements (Project): the demolition of Buildings 8, 12, and 19; the construction of new Buildings 8 and 19; the modernization and renovation of Buildings 1, 3, 7, 9, 17, and 34, and the Corporation Yard; and potential renewable energy installations in Lots 1, 2, and 9, and on Buildings 7, 5, 8, and 9.

The Building 20 Complex (Project Change Site) is located in the northeast portion of CSM and includes Building 20, a greenhouse, a lath house, and open space. The Project analyzed in the Certified EIR did not propose any changes within the Project Change Site. The District is proposing new improvements at the Project Change Site, including the demolition of all on-site structures and landscaping, and the construction of a parking lot and accompanying accessibility and landscaping improvements (Project Change). The Project Change will require revisions to the Certified EIR that the District considers to be important; accordingly, an SEIR will be prepared. Upon finding the SEIR is complete and in compliance with CEQA, the District Board of Trustees will consider certification of the SEIR at a public hearing and will add the document to the administrative record for the Project.

The SEIR will be prepared in accordance with CEQA and will include:

- A description of the proposed Project Change;
- A description of the current environmental setting as compared to the environmental setting from the Certified EIR, new or increased potential environmental impacts, and new or revised mitigation measures;
- Alternatives to the Project Change as currently proposed; and
- New environmental consequences or significant changes in environmental consequences as compared to the Certified EIR, including: (a) any significant environmental effects which cannot be avoided if the Project Change is implemented, (b) the growth-inducing impacts of the proposed Project Change, and (c) cumulative impacts.

It is noted that the potential environmental effects of the Project Change were previously evaluated in a 2011 Addendum to a 2006 Initial Study/Mitigated Negative Declaration (IS/MND). Following its adoption by the District Board of Trustees, the Addendum was legally challenged by a group of community residents and concerned citizens called The Friends of the College of San Mateo Gardens (*Friends of the College of San Mateo Gardens v. San Mateo Community College District, et al*.). After rulings at the Superior, Appellate, and Supreme Court levels, the First District Court of Appeals published a decision on May 5, 2017 that effectively overturned the District's approval of the Addendum. The SEIR will be a new CEQA document that will tier from the Certified EIR for the 2015 Facilities Master Plan Amendment, and is not related to the previously prepared 2006 IS/MND or the 2011 Addendum to the IS/MND.

B. LOCATION OF THE PROJECT CHANGE

CSM is located at 1700 West Hillsdale Boulevard in the City of San Mateo. The regional location of CSM is shown in Figure 1. The Project Change Site is an approximately two-acre site in the northern portion of CSM, north of and adjacent to Building 12. The location of the Project Change Site is shown in Figure 2. The Project Change Site is currently developed with Building 20, a greenhouse, a lath house, landscaping, a dawn redwood tree, and asphalt paving, concrete, and uneven brick pathways. The structures on the Project Change Site are in great disrepair, are non-ADA compliant, and are known to contain asbestos. The programs and courses that were previously located in Building 20 have since been discontinued or relocated to other campus buildings. Adjacent uses to the Project Change Site are Building 12, East Hall, which houses classrooms, student organizations, and college programs; Building 19, Emerging Technologies, which houses classrooms and laboratories; open space; and the East Perimeter Road.

C. DESCRIPTION OF THE PROJECT CHANGE

The Project Change involves the demolition of all existing on-site structures (Building 20, the greenhouse, and the lath house) and the construction of a surface parking lot that would provide centrally located, convenient parking for college staff and students. Specifically, the Project Change would entail the following:

- Demolition of the existing Building 20, slabs, and foundations
- Demolition of the on-site greenhouse and lath house
- Construction of a new surface parking lot with 211 stalls
- Recycling of asphalt paving and concrete on-site
- Associated landscape, storm drain, lighting, signage, and security improvements
- Removal of all on-site landscaping, vegetation, and trees
- Replace both stairs adjacent to Building 19 and Building 12 from Lot 7 to comply with Title 24 code requirement
- Extension of underground chilled water from building 34 to designated points of termination outside Buildings 12 and 19

D. ENVIRONMENTAL EFFECTS OF THE PROJECT CHANGE

The District has determined that the Project Change has the potential to result in environmental effects associated with the following resource topics, which will be addressed in the SEIR: Aesthetics, Air Quality and Greenhouse Gas Emissions, Biological Resources, Cultural Resources, Hydrology and Water Quality, Noise, and Recreation.

E. SCOPING COMMENTS

The District is soliciting input regarding the scope and content of the SEIR and environmental information appropriate to your agency's statutory responsibilities or of interest to your organization. Specifically, we are requesting the following.

1. Identify significant environmental effects and mitigation measures that you believe need to be explored in the SEIR with supporting discussion of why you believe these effects may be significant.

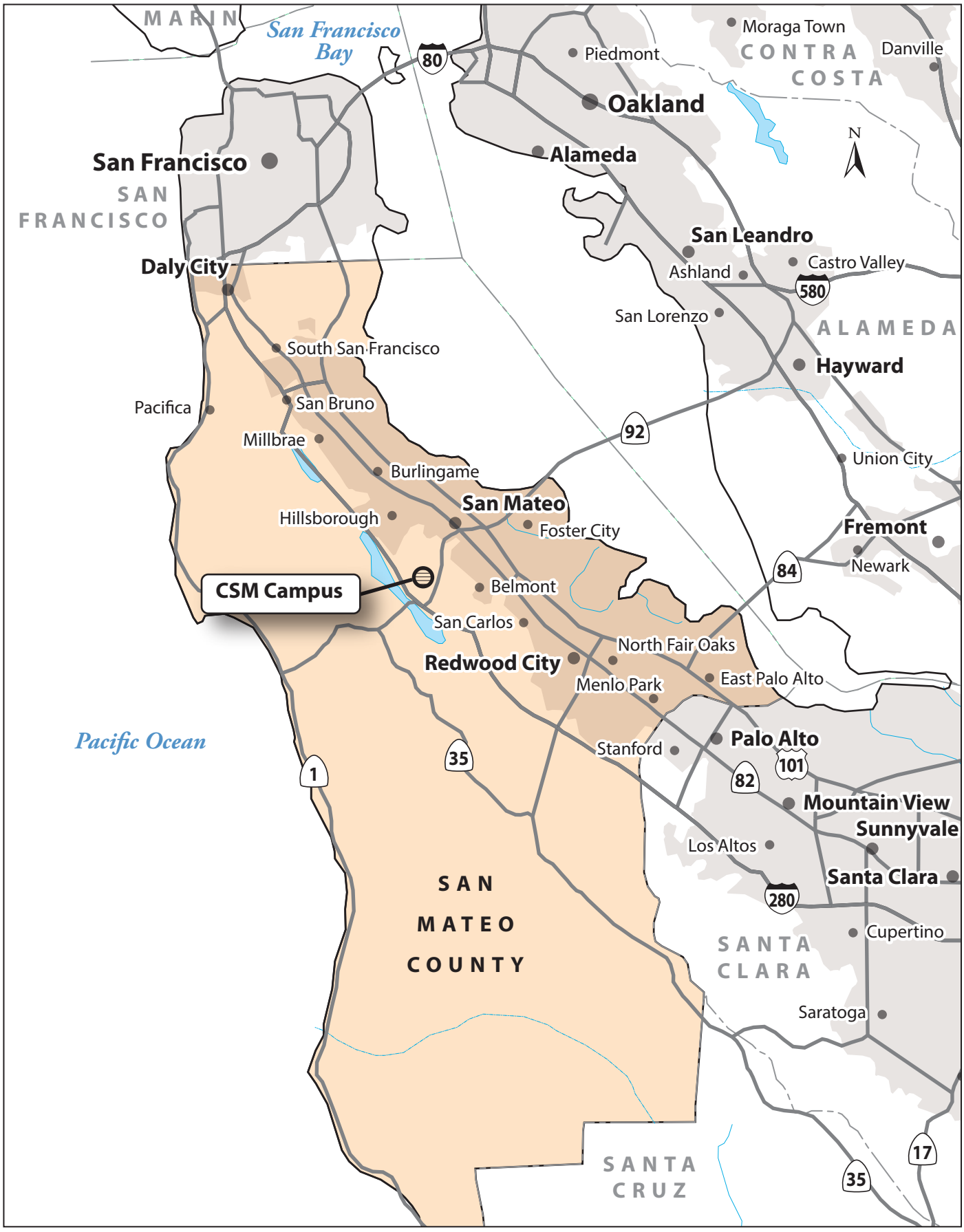
2. Describe special studies and other information that you believe are necessary for the District to analyze the significant environmental effects, alternatives, and mitigation measures you have identified.

3. For public agencies that provide infrastructure and public services, identify any facilities that will be required to provide services.

4. Indicate whether staff from your agency would like to meet with District staff to discuss the scope and content of the SEIR's environmental information.
5. Provide the name, title, telephone number, postal, and email addresses of the contact person from your agency or organization that we can contact regarding your comments.
6. Identify alternatives that you believe need to be explored in further detail in the SEIR.

Comments may be sent to:

Mitchell Bailey
Chief of Staff
San Mateo County Community College District
3401 CSM Drive
San Mateo, CA 94402
baileym@smccd.edu



Graphics ... 00602.17 (11/14/17)

ICF

Figure 1
Regional Location of CSM

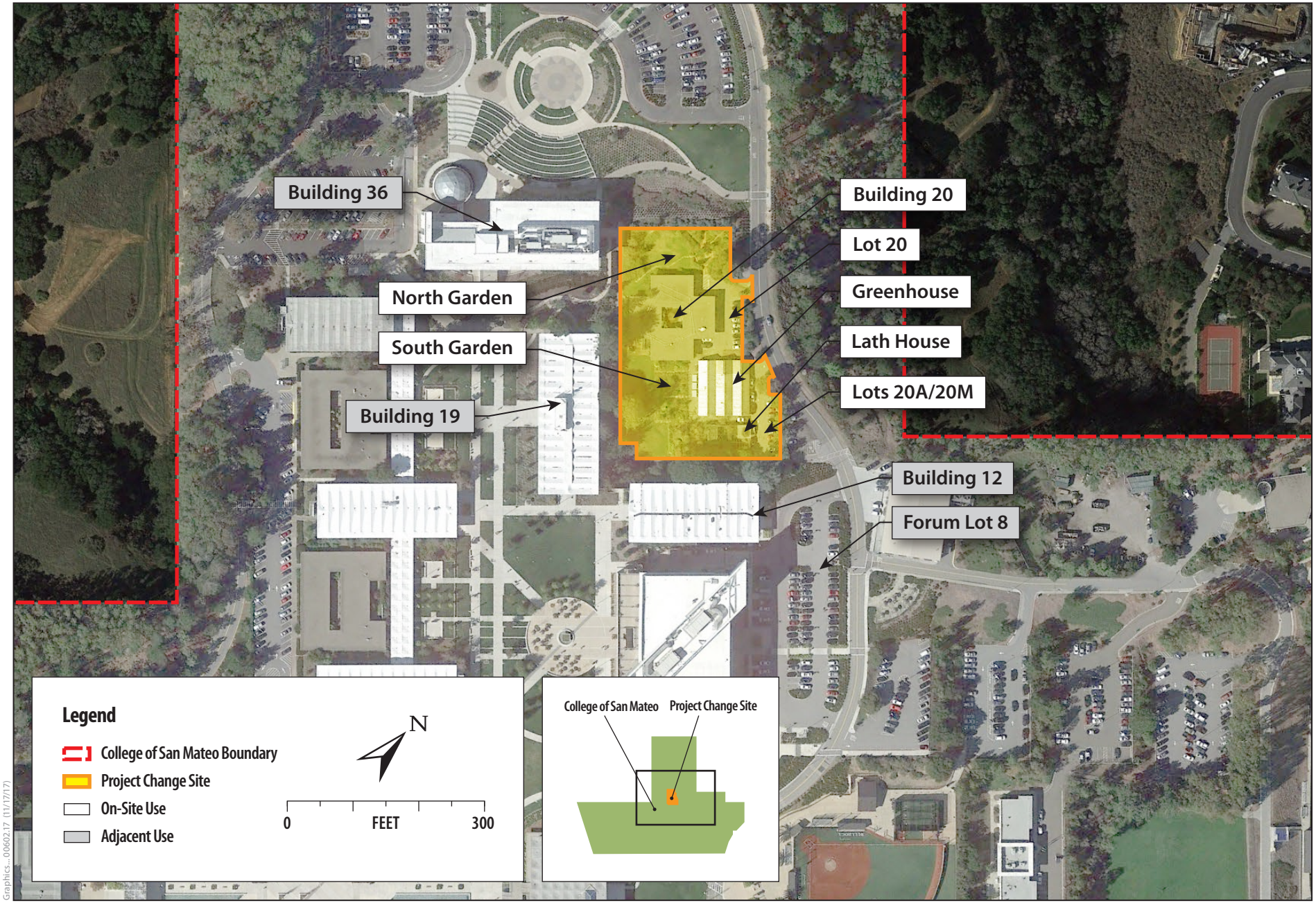


Figure 2
Location of Project Change Site

Appendix B

Air Quality and Greenhouse Gas Data and Calculations

Air Quality, GHG and Noise Data Request for 2017 SMCCD SEIR [DISTRICT RESPONSES IN BLUE. SEE ADDITIONAL DATA NEEDS IN P:\SMCCCD\00602.17_Building 20 Demo SEIR\04_Res

1. Please provide the start and end dates of construction for each of phase of the project (e.g. demolition, parking lot construction, etc.) and the equipment to be used, including types, fuel used, horsepower, and hours per day for each construction element and phase. The data that were used in the 2011 Addendum analysis are provided below. Please confirm/update as needed, including dates. UPDATED. Given the nature of the project, we believe it is unlikely that any pile driving would be required, but please indicate if there is a possibility for pile driving to occur. NO PILE DRIVING. Please also indicate if any jackhammers would be used during demolition or construction. ASSUME JACKHAMMERS DURING BOTH.

Demolition Equipment
UPDATED

Phase	Start date	End date	Equipment Type	Number per Day	Hours/day/each	
Demolition of Building 20	11/5/2018	1/18/2018	Excavators	2	5	10/8/2018
			D-9 Dozer	1	5	
Demolition of Lat and Greenhouse	11/5/2018	1/18/2018	Excavators	2	5	
			D-9 Dozer	1	5	
Removal of Redwood Tree	12/3/2018	12/5/2018	Crane	1	8	
Concrete Recycling	12/3/2018	1/18/2019	Crushers	4	5	
Haul Building 20 Debris	12/3/2018	1/18/2019	Hauling Trucks	20	-	
Haul Lat and Greenhouse Debris	12/3/2018	1/18/2019	Hauling Trucks	20	-	

Parking Lot Construction
UPDATED

Phase	Start date[1]	End date[1]	Equipment Type	Number per Day	Hours/day/each	
Rough Grading	1/14/2019	1/25/2019	D-9 Dozer	1	5	12/3/2018
			Compactor	1	5	
			Excavator	1	5	
			Dump Truck (on-site only)	2	5	
			Water Truck	1	5	
Utility Installation	2/4/2019	3/4/2019	Backhoe	1	5	
			Wheel Vibrator (on backhoe)	1	5	
			Water Truck	1	5	
			Concrete Trucks	2	-	
			Dump Trucks	2	5	
Concrete	3/11/2019	3/15/2019	Road Grader	1	5	
			Compactor	1	5	
			Water Truck	1	5	
			Concrete Trucks	2	5	
			Dump Trucks	2	5	
Paving and Striping	3/18/2019	4/19/2019	Road Grader	1	5	
			Paving Machine	1	5	
			Water Truck	1	5	
			Dump Trucks	2	5	
Landscaping and Irrigation	4/22/2019	5/3/2019	Skid Steer Loader	1	5	
			Ripper	1	5	
			Backhoe	1	5	
			Auger	1	5	
			Rototiller	1	5	
			Water Truck	1	5	
			Dump Trucks	2	5	
			Material Deliveries	2	-	

2. Please provide the quantity of materials to be demolished, exported, and recycled on-site given the changes to project design. The data used in the 2011 Addendum analysis are provided below.

CONFIRMED

Component	Estimated Materials Generated from Demolition (cubic yards)	Truck Loads (approximately)
Building 20	400 cy concrete	40
Greenhouse and Lath House	100 cy concrete	10
Walkways (excluding the walkway between the two stairs at each end of Building 19)	50 cy concrete	5
Parking areas	160 cy asphalt and concrete	16
Planting and landscape area stripping	200 cy	20
Total Demolished	910 cy	
Total for on-site Recycling	*610 cy*	
Total for off-site hauling to disposal location	*300 cy*	

3. Please provide an estimate of the daily and total truck hauling, and where materials that are hauled would be disposed. The data used in the 2011 Addendum analysis are provided below.

CONFIRMED

20 trucks/day at peak
50 miles/trip for deliveries and hauling

4. Please provide the average daily construction workers for each phase. It will be assumed each worker will make 2 trips to the site per day, unless otherwise directed. These data were not obtained for the 2011 Addendum analysis, so we used modeling defaults. Please provide this information if avaialble.

UPDATED

Project Element/Phase	Workers
Demolition of Building 20	12
Demolition of Lat and Greenhouse	10
Concrete Recycling	8
Haul Building 20 Debris	8
Rough Grading	10
Utility Installation	8
Concrete	12
Paving and Striping	16
Landscaping and Irrigation	8

5. Please provide the total area of acres to be paved during the Paving and Striping phase given the changes to project design. For the 2011 Addendum analysis, we assumed 1.4 acres to be paved. The area will be larger now since the parking lot is larger. 69,850 SF (1.6 ACRE)

6. Will any electricity be used during construction to power mobile offices or equipment? If so, please provide the annual kWh. [USE SAME ASSUMPTION FROM ADDENDUM]

7. How much water will be needed for each construction phase (e.g. for dust control)? How much wastewater will be processed for each construction phase? An example has been provided below inred.

ICF TO GENERATE BASED ON MODEL DEFAULTS OR STANDARD CONSUMPTION RATES.

Project Element/Phase	Projected water use (gal)	Projected wastewater (gal)
Demolition	300,000	30,000
Clearing/Grubbing	2,300,000	230,000
Grading	4,000,000	400,000
Drainage/Utilities	150,000	15,000

8. Please provide the number and types of trees removed and/or planted by the project. An example has been provided below inred.

ASSUME REMOVAL OF ALL ON-SITE TREES, WHICH ARE LISTED IN THIS TABLE: P:\SMCCCD\00602.17_Building 20 Demo SEIR\04_Resources\Background by TOPIC\Biology\12.19.17 Site Visit_Tree list.xls. NUMBER/TYPES OF PROPOSED TREES ARE IN CONCEPTUAL LANDSCAPE PLAN SAVED HERE: P:\SMCCCD\00602.17_Building 20 Demo SEIR\04_Resources\Background by TOPIC\Aesthetics\Conceptual Landscape Plan

Removed		Replaced	
Type	Number	Type	Number
Pine	15	Aspen	30
Redwood	1	-	-

9. Please indicate what times and days of the week construction would occur. The 2011 analysis assumed the following:

CONFIRMED.

Construction Hours	
The normal working day for construction activities will be between 7:00 a.m. and 7:00 p.m. on weekdays. If construction is scheduled for Saturdays or Sundays to avoid disrupting college operations, construction hours will be between 9:00 a.m. and 5:00 p.m. construction on Sundays will be avoided if possible, and there will	

Demolition Materials

Component	Estimated Materials Generated from Demolition (cubic yards)	Estimated Materials Generated from Demolition (tons)
Building 20	400 cy concrete	371
Greenhouse and Lath House	100 cy concrete	93
Walkways (excluding the walkway between the two stairs at each end of Building 19)	50 cy concrete	46
Parking areas	160 cy asphalt and concrete	148
Planting and landscape area stripping	200 cy	186
Total Demolished	910 cy	
Total for on-site Recycling	*610 cy*	
Total for off-site hauling to disposal location	*300 cy*	*844*

Concrete Conversion Factor

1 cubic yard concrete scrap, loose 1,855 tons source: http://www.calrecycle.ca.gov/lgcentral/library/dsg/ICandD.htm

CalEEMod Annual Output Files

Building 20 Demolition Project - Construction

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	69.85	1000sqft	1.60	69,850.00	0
City Park	0.80	Acre	0.80	16,585.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - City park land use represents the landscaped areas of the parking lot. Parking lot is staying the same size. Reuced landscaped area per new total size of 86,435

Construction Phase - Schedule information provided by project applicant in air quality-GHG-noise data request 12.13.17.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Trips and VMT - Vendor trips = concrete & water trucks. 3 days of tree removal, assuming 1 trip/day. 83 haul trips is for hauling demo material from building 20. Worst case, because most debris will be recycled on site.

Demolition - Demo info provided by project applicant in air quality-GHG-noise data request 5.16.18 (910 cy). Assuming 1 cy of concrete scrap, loose = 1.855 (CalRecycle)

Grading - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18. 104,835 square feet graded, which includes slopes being removed.

Vehicle Trips - No increase in vehicle trips

Construction Off-road Equipment Mitigation - Tier 4 Mitigation based on mitigation measure CSM-AQE-3 in certified EIR.

Land Use Change -

Sequestration -

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	6.00	10.00
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tblGrading	MaterialImported	0.00	3,500.00
tblLandUse	LandUseSquareFeet	34,848.00	16,585.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0651	0.6314	0.4155	7.6000e-004	0.0111	0.0326	0.0438	2.1900e-003	0.0307	0.0329	0.0000	68.6460	68.6460	0.0161	0.0000	69.0493
2019	0.0490	0.4668	0.3193	6.2000e-004	0.0476	0.0228	0.0704	0.0229	0.0214	0.0442	0.0000	55.8081	55.8081	0.0130	0.0000	56.1328
Maximum	**0.0651**	**0.6314**	**0.4155**	**7.6000e-004**	**0.0476**	**0.0326**	**0.0704**	**0.0229**	**0.0307**	**0.0442**	**0.0000**	**68.6460**	**68.6460**	**0.0161**	**0.0000**	**69.0493**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	9.6500e-003	0.0557	0.4327	7.6000e-004	0.0111	1.1600e-003	0.0123	2.1900e-003	1.1600e-003	3.3500e-003	0.0000	68.6459	68.6459	0.0161	0.0000	69.0492
2019	0.0108	0.0586	0.3424	6.2000e-004	0.0476	9.6000e-004	0.0486	0.0229	9.6000e-004	0.0238	0.0000	55.8080	55.8080	0.0130	0.0000	56.1327
Maximum	**0.0108**	**0.0586**	**0.4327**	**7.6000e-004**	**0.0476**	**1.1600e-003**	**0.0486**	**0.0229**	**1.1600e-003**	**0.0238**	**0.0000**	**68.6459**	**68.6459**	**0.0161**	**0.0000**	**69.0492**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**82.08**	**89.59**	**-5.48**	**0.00**	**0.00**	**96.17**	**46.68**	**0.00**	**95.93**	**64.79**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-5-2018	2-4-2019	0.9760	0.0964
2	2-5-2019	5-4-2019	0.1806	0.0314
		Highest	0.9760	0.0964

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.1900e-003	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.1121	7.1121	3.2000e-004	7.0000e-005	7.1399
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0142	0.0000	0.0142	8.4000e-004	0.0000	0.0352
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.9705	0.9705	4.0000e-005	1.0000e-005	0.9743
Total	**6.1900e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0142**	**8.0838**	**8.0981**	**1.2000e-003**	**8.0000e-005**	**8.1508**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.1900e-003	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.1121	7.1121	3.2000e-004	7.0000e-005	7.1399
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0142	0.0000	0.0142	8.4000e-004	0.0000	0.0352
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.9705	0.9705	4.0000e-005	1.0000e-005	0.9743
Total	**6.1900e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0142**	**8.0838**	**8.0981**	**1.2000e-003**	**8.0000e-005**	**8.1508**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	-89.9160
Vegetation Land Change	0.0000

Total	-89.9160

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition of Building 20 Lath and Greenhouse	Demolition	11/5/2018	1/18/2019	5	55	
2	Debris Recycling and Hauling	Demolition	12/3/2018	1/18/2019	5	35	
3	Redwood Tree Removal	Demolition	12/3/2018	12/5/2018	5	3	
4	Rough Grading	Grading	1/14/2019	1/25/2019	5	10	
5	Utility Installation	Trenching	2/4/2019	3/4/2019	5	21	
6	Concrete	Building Construction	3/11/2019	3/15/2019	5	5	
7	Paving and Striping	Paving	3/18/2019	4/19/2019	5	25	
8	Landscaping and Irrigation	Site Preparation	4/22/2019	5/3/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition of Building 20 Lath and Greenhouse	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition of Building 20 Lath and Greenhouse	Excavators	4	5.00	158	0.38
Demolition of Building 20 Lath and Greenhouse	Rubber Tired Dozers	2	5.00	247	0.40
Demolition of Building 20 Lath and Greenhouse	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Debris Recycling and Hauling	Concrete/Industrial Saws	0	8.00	81	0.73
Debris Recycling and Hauling	Crushing/Proc. Equipment	4	5.00	85	0.78
Debris Recycling and Hauling	Rubber Tired Dozers	0	8.00	247	0.40
Debris Recycling and Hauling	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Redwood Tree Removal	Concrete/Industrial Saws	0	8.00	81	0.73
Redwood Tree Removal	Cranes	1	8.00	231	0.29
Redwood Tree Removal	Rubber Tired Dozers	0	8.00	247	0.40
Redwood Tree Removal	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Landscaping and Irrigation	Graders	0	8.00	187	0.41
Landscaping and Irrigation	Rubber Tired Dozers	1	5.00	247	0.40
Landscaping and Irrigation	Scrapers	0	8.00	367	0.48
Landscaping and Irrigation	Skid Steer Loaders	3	5.00	65	0.37
Landscaping and Irrigation	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Rough Grading	Excavators	1	5.00	158	0.38
Rough Grading	Graders	0	8.00	187	0.41
Rough Grading	Plate Compactors	1	5.00	8	0.43
Rough Grading	Rubber Tired Dozers	1	5.00	247	0.40
Rough Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Concrete	Cranes	0	8.00	231	0.29
Concrete	Forklifts	0	7.00	89	0.20
Concrete	Generator Sets	0	8.00	84	0.74
Concrete	Graders	1	5.00	187	0.41
Concrete	Plate Compactors	1	5.00	8	0.43

Concrete	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Concrete	Welders	0	8.00	46	0.45
Paving and Striping	Cement and Mortar Mixers	0	8.00	9	0.56
Paving and Striping	Graders	1	5.00	187	0.41
Paving and Striping	Pavers	1	5.00	130	0.42
Paving and Striping	Paving Equipment	0	8.00	132	0.36
Paving and Striping	Rollers	0	8.00	80	0.38
Paving and Striping	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Utility Installation	Tractors/Loaders/Backhoes	2	5.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition of Building 20 Lath and	6	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Debris Recycling and Hauling	4	8.00	0.00	83.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Redwood Tree Removal	1	16.00	0.00	3.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Landscaping and Irrigation	5	8.00	1.00	2.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	3	10.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete	2	12.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving and Striping	2	16.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utility Installation	2	8.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition of Building 20 Lath and Greenhouse - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.7300e-003	0.0000	6.7300e-003	1.0200e-003	0.0000	1.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0447	0.4805	0.2800	4.8000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	44.1533	44.1533	0.0138	0.0000	44.4969
Total	**0.0447**	**0.4805**	**0.2800**	**4.8000e-004**	**6.7300e-003**	**0.0233**	**0.0301**	**1.0200e-003**	**0.0215**	**0.0225**	**0.0000**	**44.1533**	**44.1533**	**0.0138**	**0.0000**	**44.4969**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.8000e-004	5.9100e-003	2.0000e-005	1.9400e-003	1.0000e-005	1.9500e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.7190	1.7190	4.0000e-005	0.0000	1.7200
Total	**8.0000e-004**	**5.8000e-004**	**5.9100e-003**	**2.0000e-005**	**1.9400e-003**	**1.0000e-005**	**1.9500e-003**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**1.7190**	**1.7190**	**4.0000e-005**	**0.0000**	**1.7200**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.7300e-003	0.0000	6.7300e-003	1.0200e-003	0.0000	1.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9400e-003	0.0257	0.2990	4.8000e-004		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	44.1532	44.1532	0.0138	0.0000	44.4969
Total	**5.9400e-003**	**0.0257**	**0.2990**	**4.8000e-004**	**6.7300e-003**	**7.9000e-004**	**7.5200e-003**	**1.0200e-003**	**7.9000e-004**	**1.8100e-003**	**0.0000**	**44.1532**	**44.1532**	**0.0138**	**0.0000**	**44.4969**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	5.8000e-004	5.9100e-003	2.0000e-005	1.9400e-003	1.0000e-005	1.9500e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.7190	1.7190	4.0000e-005	0.0000	1.7200
Total	**8.0000e-004**	**5.8000e-004**	**5.9100e-003**	**2.0000e-005**	**1.9400e-003**	**1.0000e-005**	**1.9500e-003**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**1.7190**	**1.7190**	**4.0000e-005**	**0.0000**	**1.7200**

3.2 Demolition of Building 20 Lath and Greenhouse - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3000e-003	0.0000	2.3000e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0145	0.1526	0.0946	1.6000e-004		7.4100e-003	7.4100e-003		6.8200e-003	6.8200e-003	0.0000	14.8254	14.8254	4.6900e-003	0.0000	14.9427
Total	**0.0145**	**0.1526**	**0.0946**	**1.6000e-004**	**2.3000e-003**	**7.4100e-003**	**9.7100e-003**	**3.5000e-004**	**6.8200e-003**	**7.1700e-003**	**0.0000**	**14.8254**	**14.8254**	**4.6900e-003**	**0.0000**	**14.9427**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.7000e-004	1.8000e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5687	0.5687	1.0000e-005	0.0000	0.5690
Total	**2.5000e-004**	**1.7000e-004**	**1.8000e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5687**	**0.5687**	**1.0000e-005**	**0.0000**	**0.5690**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3000e-003	0.0000	2.3000e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0300e-003	8.7800e-003	0.1021	1.6000e-004		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	14.8254	14.8254	4.6900e-003	0.0000	14.9426
Total	**2.0300e-003**	**8.7800e-003**	**0.1021**	**1.6000e-004**	**2.3000e-003**	**2.7000e-004**	**2.5700e-003**	**3.5000e-004**	**2.7000e-004**	**6.2000e-004**	**0.0000**	**14.8254**	**14.8254**	**4.6900e-003**	**0.0000**	**14.9426**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.7000e-004	1.8000e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5687	0.5687	1.0000e-005	0.0000	0.5690
Total	**2.5000e-004**	**1.7000e-004**	**1.8000e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5687**	**0.5687**	**1.0000e-005**	**0.0000**	**0.5690**

3.3 Debris Recycling and Hauling - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0178	0.1191	0.1155	1.8000e-004		8.7200e-003	8.7200e-003		8.7200e-003	8.7200e-003	0.0000	15.8249	15.8249	1.4500e-003	0.0000	15.8611
Total	**0.0178**	**0.1191**	**0.1155**	**1.8000e-004**		**8.7200e-003**	**8.7200e-003**		**8.7200e-003**	**8.7200e-003**	**0.0000**	**15.8249**	**15.8249**	**1.4500e-003**	**0.0000**	**15.8611**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8000e-004	0.0195	7.2600e-003	5.0000e-005	1.5600e-003	9.0000e-005	1.6500e-003	4.1000e-004	9.0000e-005	5.0000e-004	0.0000	5.0970	5.0970	6.0000e-004	0.0000	5.1119
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.0200e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5870	0.5870	1.0000e-005	0.0000	0.5873
Total	**8.5000e-004**	**0.0197**	**9.2800e-003**	**6.0000e-005**	**2.2200e-003**	**9.0000e-005**	**2.3200e-003**	**5.9000e-004**	**9.0000e-005**	**6.8000e-004**	**0.0000**	**5.6840**	**5.6840**	**6.1000e-004**	**0.0000**	**5.6993**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8400e-003	7.9800e-003	0.1136	1.8000e-004		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	15.8248	15.8248	1.4500e-003	0.0000	15.8610
Total	**1.8400e-003**	**7.9800e-003**	**0.1136**	**1.8000e-004**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**	**0.0000**	**15.8248**	**15.8248**	**1.4500e-003**	**0.0000**	**15.8610**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.8000e-004	0.0195	7.2600e-003	5.0000e-005	1.5600e-003	9.0000e-005	1.6500e-003	4.1000e-004	9.0000e-005	5.0000e-004	0.0000	5.0970	5.0970	6.0000e-004	0.0000	5.1119
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.0200e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5870	0.5870	1.0000e-005	0.0000	0.5873
Total	**8.5000e-004**	**0.0197**	**9.2800e-003**	**6.0000e-005**	**2.2200e-003**	**9.0000e-005**	**2.3200e-003**	**5.9000e-004**	**9.0000e-005**	**6.8000e-004**	**0.0000**	**5.6840**	**5.6840**	**6.1000e-004**	**0.0000**	**5.6993**

3.3 Debris Recycling and Hauling - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0106	0.0725	0.0765	1.2000e-004		4.9300e-003	4.9300e-003		4.9300e-003	4.9300e-003	0.0000	10.5499	10.5499	8.5000e-004	0.0000	10.5713
Total	**0.0106**	**0.0725**	**0.0765**	**1.2000e-004**		**4.9300e-003**	**4.9300e-003**		**4.9300e-003**	**4.9300e-003**	**0.0000**	**10.5499**	**10.5499**	**8.5000e-004**	**0.0000**	**10.5713**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0123	4.9100e-003	3.0000e-005	1.4800e-003	6.0000e-005	1.5300e-003	3.8000e-004	5.0000e-005	4.4000e-004	0.0000	3.3477	3.3477	4.1000e-004	0.0000	3.3578
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.2000e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3791	0.3791	1.0000e-005	0.0000	0.3793
Total	**5.3000e-004**	**0.0124**	**6.1100e-003**	**3.0000e-005**	**1.9200e-003**	**6.0000e-005**	**1.9700e-003**	**5.0000e-004**	**5.0000e-005**	**5.6000e-004**	**0.0000**	**3.7268**	**3.7268**	**4.2000e-004**	**0.0000**	**3.7372**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2300e-003	5.3200e-003	0.0757	1.2000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	10.5499	10.5499	8.5000e-004	0.0000	10.5712
Total	**1.2300e-003**	**5.3200e-003**	**0.0757**	**1.2000e-004**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**10.5499**	**10.5499**	**8.5000e-004**	**0.0000**	**10.5712**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0123	4.9100e-003	3.0000e-005	1.4800e-003	6.0000e-005	1.5300e-003	3.8000e-004	5.0000e-005	4.4000e-004	0.0000	3.3477	3.3477	4.1000e-004	0.0000	3.3578
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.2000e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3791	0.3791	1.0000e-005	0.0000	0.3793
Total	**5.3000e-004**	**0.0124**	**6.1100e-003**	**3.0000e-005**	**1.9200e-003**	**6.0000e-005**	**1.9700e-003**	**5.0000e-004**	**5.0000e-005**	**5.6000e-004**	**0.0000**	**3.7268**	**3.7268**	**4.2000e-004**	**0.0000**	**3.7372**

3.4 Redwood Tree Removal - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6000e-004	0.0102	3.7800e-003	1.0000e-005		4.4000e-004	4.4000e-004		4.1000e-004	4.1000e-004	0.0000	0.7901	0.7901	2.5000e-004	0.0000	0.7962
Total	**8.6000e-004**	**0.0102**	**3.7800e-003**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.7901**	**0.7901**	**2.5000e-004**	**0.0000**	**0.7962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1800e-003	4.4000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.3071	0.3071	4.0000e-005	0.0000	0.3080
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.8000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1677	0.1677	0.0000	0.0000	0.1678
Total	**1.1000e-004**	**1.2400e-003**	**1.0200e-003**	**0.0000**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**7.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**0.4748**	**0.4748**	**4.0000e-005**	**0.0000**	**0.4758**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1000e-004	4.6000e-004	3.9000e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.7901	0.7901	2.5000e-004	0.0000	0.7962
Total	**1.1000e-004**	**4.6000e-004**	**3.9000e-003**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.7901**	**0.7901**	**2.5000e-004**	**0.0000**	**0.7962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1800e-003	4.4000e-004	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.3071	0.3071	4.0000e-005	0.0000	0.3080
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	5.8000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1677	0.1677	0.0000	0.0000	0.1678
Total	**1.1000e-004**	**1.2400e-003**	**1.0200e-003**	**0.0000**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**7.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**0.4748**	**0.4748**	**4.0000e-005**	**0.0000**	**0.4758**

3.5 Rough Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0203	0.0000	0.0203	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4900e-003	0.0469	0.0242	4.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	3.9435	3.9435	1.2300e-003	0.0000	3.9742
Total	**4.4900e-003**	**0.0469**	**0.0242**	**4.0000e-005**	**0.0203**	**2.2700e-003**	**0.0226**	**0.0105**	**2.0900e-003**	**0.0126**	**0.0000**	**3.9435**	**3.9435**	**1.2300e-003**	**0.0000**	**3.9742**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.4000e-004	2.5000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1338	0.1338	1.0000e-005	0.0000	0.1341
Worker	1.5000e-004	1.0000e-004	1.0700e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3385	0.3385	1.0000e-005	0.0000	0.3387
Total	**1.7000e-004**	**7.4000e-004**	**1.3200e-003**	**0.0000**	**4.2000e-004**	**0.0000**	**4.4000e-004**	**1.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4723**	**0.4723**	**2.0000e-005**	**0.0000**	**0.4728**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0203	0.0000	0.0203	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3000e-004	2.2800e-003	0.0242	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.9435	3.9435	1.2300e-003	0.0000	3.9742
Total	**5.3000e-004**	**2.2800e-003**	**0.0242**	**4.0000e-005**	**0.0203**	**7.0000e-005**	**0.0204**	**0.0105**	**7.0000e-005**	**0.0106**	**0.0000**	**3.9435**	**3.9435**	**1.2300e-003**	**0.0000**	**3.9742**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.4000e-004	2.5000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1338	0.1338	1.0000e-005	0.0000	0.1341
Worker	1.5000e-004	1.0000e-004	1.0700e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3385	0.3385	1.0000e-005	0.0000	0.3387
Total	**1.7000e-004**	**7.4000e-004**	**1.3200e-003**	**0.0000**	**4.2000e-004**	**0.0000**	**4.4000e-004**	**1.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.4723**	**0.4723**	**2.0000e-005**	**0.0000**	**0.4728**

3.6 Utility Installation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0600e-003	0.0307	0.0302	4.0000e-005		2.0500e-003	2.0500e-003		1.8800e-003	1.8800e-003	0.0000	3.6618	3.6618	1.1600e-003	0.0000	3.6908
Total	**3.0600e-003**	**0.0307**	**0.0302**	**4.0000e-005**		**2.0500e-003**	**2.0500e-003**		**1.8800e-003**	**1.8800e-003**	**0.0000**	**3.6618**	**3.6618**	**1.1600e-003**	**0.0000**	**3.6908**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.0200e-003	1.5400e-003	1.0000e-005	2.1000e-004	3.0000e-005	2.3000e-004	6.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.8426	0.8426	7.0000e-005	0.0000	0.8445
Worker	2.5000e-004	1.7000e-004	1.8000e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5687	0.5687	1.0000e-005	0.0000	0.5690
Total	**4.0000e-004**	**4.1900e-003**	**3.3400e-003**	**2.0000e-005**	**8.7000e-004**	**3.0000e-005**	**9.0000e-004**	**2.4000e-004**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**1.4114**	**1.4114**	**8.0000e-005**	**0.0000**	**1.4135**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.0000e-004	2.1600e-003	0.0307	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6618	3.6618	1.1600e-003	0.0000	3.6908
Total	**5.0000e-004**	**2.1600e-003**	**0.0307**	**4.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**3.6618**	**3.6618**	**1.1600e-003**	**0.0000**	**3.6908**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5000e-004	4.0200e-003	1.5400e-003	1.0000e-005	2.1000e-004	3.0000e-005	2.3000e-004	6.0000e-005	3.0000e-005	9.0000e-005	0.0000	0.8426	0.8426	7.0000e-005	0.0000	0.8445
Worker	2.5000e-004	1.7000e-004	1.8000e-003	1.0000e-005	6.6000e-004	0.0000	6.7000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5687	0.5687	1.0000e-005	0.0000	0.5690
Total	**4.0000e-004**	**4.1900e-003**	**3.3400e-003**	**2.0000e-005**	**8.7000e-004**	**3.0000e-005**	**9.0000e-004**	**2.4000e-004**	**3.0000e-005**	**2.7000e-004**	**0.0000**	**1.4114**	**1.4114**	**8.0000e-005**	**0.0000**	**1.4135**

3.7 Concrete - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2000e-004	0.0107	3.2000e-003	1.0000e-005		3.5000e-004	3.5000e-004		3.2000e-004	3.2000e-004	0.0000	0.9810	0.9810	3.0000e-004	0.0000	0.9885
Total	**8.2000e-004**	**0.0107**	**3.2000e-003**	**1.0000e-005**		**3.5000e-004**	**3.5000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.9810**	**0.9810**	**3.0000e-004**	**0.0000**	**0.9885**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	9.6000e-004	3.7000e-004	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2006	0.2006	2.0000e-005	0.0000	0.2011
Worker	9.0000e-005	6.0000e-005	6.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2031	0.2031	0.0000	0.0000	0.2032
Total	**1.3000e-004**	**1.0200e-003**	**1.0100e-003**	**0.0000**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**7.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**0.4037**	**0.4037**	**2.0000e-005**	**0.0000**	**0.4043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3000e-004	5.5000e-004	4.6500e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.9810	0.9810	3.0000e-004	0.0000	0.9885
Total	**1.3000e-004**	**5.5000e-004**	**4.6500e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.9810**	**0.9810**	**3.0000e-004**	**0.0000**	**0.9885**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	9.6000e-004	3.7000e-004	0.0000	5.0000e-005	1.0000e-005	6.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2006	0.2006	2.0000e-005	0.0000	0.2011
Worker	9.0000e-005	6.0000e-005	6.4000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2031	0.2031	0.0000	0.0000	0.2032
Total	**1.3000e-004**	**1.0200e-003**	**1.0100e-003**	**0.0000**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**7.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**0.4037**	**0.4037**	**2.0000e-005**	**0.0000**	**0.4043**

3.8 Paving and Striping - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.0500e-003	0.0758	0.0370	9.0000e-005		2.8500e-003	2.8500e-003		2.6200e-003	2.6200e-003	0.0000	7.9600	7.9600	2.5200e-003	0.0000	8.0230
Paving	2.1000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.1500e-003**	**0.0758**	**0.0370**	**9.0000e-005**		**2.8500e-003**	**2.8500e-003**		**2.6200e-003**	**2.6200e-003**	**0.0000**	**7.9600**	**7.9600**	**2.5200e-003**	**0.0000**	**8.0230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-005	1.6000e-003	6.1000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3344	0.3344	3.0000e-005	0.0000	0.3351
Worker	5.9000e-004	4.2000e-004	4.2900e-003	1.0000e-005	1.5700e-003	1.0000e-005	1.5800e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3541	1.3541	3.0000e-005	0.0000	1.3548
Total	**6.5000e-004**	**2.0200e-003**	**4.9000e-003**	**1.0000e-005**	**1.6500e-003**	**2.0000e-005**	**1.6700e-003**	**4.4000e-004**	**2.0000e-005**	**4.6000e-004**	**0.0000**	**1.6884**	**1.6884**	**6.0000e-005**	**0.0000**	**1.6899**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0900e-003	4.7000e-003	0.0511	9.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.9600	7.9600	2.5200e-003	0.0000	8.0230
Paving	2.1000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.1900e-003**	**4.7000e-003**	**0.0511**	**9.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**7.9600**	**7.9600**	**2.5200e-003**	**0.0000**	**8.0230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0000e-005	1.6000e-003	6.1000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3344	0.3344	3.0000e-005	0.0000	0.3351
Worker	5.9000e-004	4.2000e-004	4.2900e-003	1.0000e-005	1.5700e-003	1.0000e-005	1.5800e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3541	1.3541	3.0000e-005	0.0000	1.3548
Total	**6.5000e-004**	**2.0200e-003**	**4.9000e-003**	**1.0000e-005**	**1.6500e-003**	**2.0000e-005**	**1.6700e-003**	**4.4000e-004**	**2.0000e-005**	**4.6000e-004**	**0.0000**	**1.6884**	**1.6884**	**6.0000e-005**	**0.0000**	**1.6899**

3.9 Landscaping and Irrigation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0188	0.0000	0.0188	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0700e-003	0.0556	0.0336	6.0000e-005		2.8100e-003	2.8100e-003		2.5900e-003	2.5900e-003	0.0000	5.0088	5.0088	1.5800e-003	0.0000	5.0484
Total	**5.0700e-003**	**0.0556**	**0.0336**	**6.0000e-005**	**0.0188**	**2.8100e-003**	**0.0216**	**0.0103**	**2.5900e-003**	**0.0129**	**0.0000**	**5.0088**	**5.0088**	**1.5800e-003**	**0.0000**	**5.0484**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.4000e-004	3.0000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.2017	0.2017	2.0000e-005	0.0000	0.2023
Vendor	2.0000e-005	6.4000e-004	2.5000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1338	0.1338	1.0000e-005	0.0000	0.1341
Worker	1.2000e-004	8.0000e-005	8.6000e-004	0.0000	3.1000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2708	0.2708	1.0000e-005	0.0000	0.2710
Total	**1.6000e-004**	**1.4600e-003**	**1.4100e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**4.1000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.6062**	**0.6062**	**4.0000e-005**	**0.0000**	**0.6073**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0188	0.0000	0.0188	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2000e-004	0.0128	0.0340	6.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	5.0088	5.0088	1.5800e-003	0.0000	5.0484
Total	**9.2000e-004**	**0.0128**	**0.0340**	**6.0000e-005**	**0.0188**	**9.0000e-005**	**0.0189**	**0.0103**	**9.0000e-005**	**0.0104**	**0.0000**	**5.0088**	**5.0088**	**1.5800e-003**	**0.0000**	**5.0484**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.4000e-004	3.0000e-004	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.2017	0.2017	2.0000e-005	0.0000	0.2023
Vendor	2.0000e-005	6.4000e-004	2.5000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1338	0.1338	1.0000e-005	0.0000	0.1341
Worker	1.2000e-004	8.0000e-005	8.6000e-004	0.0000	3.1000e-004	0.0000	3.2000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2708	0.2708	1.0000e-005	0.0000	0.2710
Total	**1.6000e-004**	**1.4600e-003**	**1.4100e-003**	**0.0000**	**3.8000e-004**	**0.0000**	**4.1000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.6062**	**0.6062**	**4.0000e-005**	**0.0000**	**0.6073**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.498968	0.049513	0.248277	0.134909	0.018184	0.006326	0.020670	0.006254	0.003828	0.003354	0.008577	0.000418	0.000722
Parking Lot	0.498968	0.049513	0.248277	0.134909	0.018184	0.006326	0.020670	0.006254	0.003828	0.003354	0.008577	0.000418	0.000722

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.1121	7.1121	3.2000e-004	7.0000e-005	7.1399
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.1121	7.1121	3.2000e-004	7.0000e-005	7.1399
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	24447.5	7.1121	3.2000e-004	7.0000e-005	7.1399
Total		**7.1121**	**3.2000e-004**	**7.0000e-005**	**7.1399**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	24447.5	7.1121	3.2000e-004	7.0000e-005	7.1399
Total		**7.1121**	**3.2000e-004**	**7.0000e-005**	**7.1399**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.1900e-003	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003
Unmitigated	6.1900e-003	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.6700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003

Total	**6.1900e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2600e-003**	**1.2600e-003**	**0.0000**	**0.0000**	**1.3500e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.6700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003
Total	**6.1900e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2600e-003**	**1.2600e-003**	**0.0000**	**0.0000**	**1.3500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.9705	4.0000e-005	1.0000e-005	0.9743
Unmitigated	0.9705	4.0000e-005	1.0000e-005	0.9743

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.953185	0.9705	4.0000e-005	1.0000e-005	0.9743
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.9705**	**4.0000e-005**	**1.0000e-005**	**0.9743**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.953185	0.9705	4.0000e-005	1.0000e-005	0.9743

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.9705**	**4.0000e-005**	**1.0000e-005**	**0.9743**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0142	8.4000e-004	0.0000	0.0352
Unmitigated	0.0142	8.4000e-004	0.0000	0.0352

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.07	0.0142	8.4000e-004	0.0000	0.0352
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0142**	**8.4000e-004**	**0.0000**	**0.0352**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.07	0.0142	8.4000e-004	0.0000	0.0352
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0142**	**8.4000e-004**	**0.0000**	**0.0352**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-89.9160	0.0000	0.0000	-89.9160

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Others	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	-127	-89.9160	0.0000	0.0000	-89.9160
Total		**-89.9160**	**0.0000**	**0.0000**	**-89.9160**

CalEEMod Daily Output Files - Summer

Building 20 Demolition Project - Construction

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	69.85	1000sqft	1.60	69,850.00	0
City Park	0.80	Acre	0.80	16,585.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - City park land use represents the landscaped areas of the parking lot. Parking lot is staying the same size. Reuced landscaped area per new total size of 86,435

Construction Phase - Schedule information provided by project applicant in air quality-GHG-noise data request 12.13.17.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Trips and VMT - Vendor trips = concrete & water trucks. 3 days of tree removal, assuming 1 trip/day. 83 haul trips is for hauling demo material from building 20. Worst case, because most debris will be recycled on site.

Demolition - Demo info provided by project applicant in air quality-GHG-noise data request 5.16.18 (910 cy). Assuming 1 cy of concrete scrap, loose = 1.855 (CalRecycle)

Grading - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18. 104,835 square feet graded, which includes slopes being removed

Vehicle Trips - No increase in vehicle trips

Construction Off-road Equipment Mitigation - Tier 4 Mitigation based on mitigation measure CSM-AQE-3 in certified EIR.

Land Use Change -

Sequestration -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	220.00	5.00
tblConstructionPhase	NumDays	10.00	25.00
tblGrading	AcresOfGrading	0.00	2.40
tblGrading	MaterialImported	0.00	3,500.00
tblLandUse	LandUseSquareFeet	34,848.00	16,585.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblSequestration	NumberOfNewTrees	0.00	-127.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripNumber	83.00	0.00

tblTripsAndVMT	HaulingTripNumber	0.00	83.00
tblTripsAndVMT	HaulingTripNumber	0.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	438.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	14.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	3.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	36.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	16.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.6430	44.2385	29.0788	0.0566	0.8226	2.2780	3.1006	0.1810	2.1626	2.3436	0.0000	5,672.6225	5,672.6225	1.1678	0.0000	5,701.8173
2019	4.6304	43.4138	30.7259	0.0573	4.8599	2.2289	7.0888	2.2764	2.1077	4.3841	0.0000	5,660.8534	5,660.8534	1.2151	0.0000	5,691.2304
Maximum	**4.6430**	**44.2385**	**30.7259**	**0.0573**	**4.8599**	**2.2780**	**7.0888**	**2.2764**	**2.1626**	**4.3841**	**0.0000**	**5,672.6225**	**5,672.6225**	**1.2151**	**0.0000**	**5,701.8173**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.7321	4.9545	29.8993	0.0566	0.8226	0.0854	0.9080	0.1810	0.0847	0.2657	0.0000	5,672.6225	5,672.6225	1.1678	0.0000	5,701.8173
2019	0.7160	4.3460	31.6819	0.0573	4.8599	0.0862	4.9461	2.2764	0.0857	2.3621	0.0000	5,660.8534	5,660.8534	1.2151	0.0000	5,691.2304
Maximum	**0.7321**	**4.9545**	**31.6819**	**0.0573**	**4.8599**	**0.0862**	**4.9461**	**2.2764**	**0.0857**	**2.3621**	**0.0000**	**5,672.6225**	**5,672.6225**	**1.2151**	**0.0000**	**5,701.8173**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**84.38**	**89.39**	**-2.97**	**0.00**	**0.00**	**96.19**	**42.55**	**0.00**	**96.01**	**60.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0343	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0343**	**7.0000e-005**	**7.2800e-003**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**	**0.0000**	**0.0165**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0343	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0343**	**7.0000e-005**	**7.2800e-003**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**	**0.0000**	**0.0165**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition of Building 20 Lath and Greenhouse	Demolition	11/5/2018	1/18/2019	5	55	
2	Debris Recycling and Hauling	Demolition	12/3/2018	1/18/2019	5	35	
3	Redwood Tree Removal	Demolition	12/3/2018	12/5/2018	5	3	
4	Rough Grading	Grading	1/14/2019	1/25/2019	5	10	
5	Utility Installation	Trenching	2/4/2019	3/4/2019	5	21	
6	Concrete	Building Construction	3/11/2019	3/15/2019	5	5	
7	Paving and Striping	Paving	3/18/2019	4/19/2019	5	25	
8	Landscaping and Irrigation	Site Preparation	4/22/2019	5/3/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Demolition of Building 20 Lath and Greenhouse	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition of Building 20 Lath and Greenhouse	Excavators	4	5.00	158	0.38
Demolition of Building 20 Lath and Greenhouse	Rubber Tired Dozers	2	5.00	247	0.40
Demolition of Building 20 Lath and Greenhouse	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Debris Recycling and Hauling	Concrete/Industrial Saws	0	8.00	81	0.73
Debris Recycling and Hauling	Crushing/Proc. Equipment	4	5.00	85	0.78
Debris Recycling and Hauling	Rubber Tired Dozers	0	8.00	247	0.40
Debris Recycling and Hauling	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Redwood Tree Removal	Concrete/Industrial Saws	0	8.00	81	0.73
Redwood Tree Removal	Cranes	1	8.00	231	0.29
Redwood Tree Removal	Rubber Tired Dozers	0	8.00	247	0.40
Redwood Tree Removal	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Landscaping and Irrigation	Graders	0	8.00	187	0.41
Landscaping and Irrigation	Rubber Tired Dozers	1	5.00	247	0.40
Landscaping and Irrigation	Scrapers	0	8.00	367	0.48
Landscaping and Irrigation	Skid Steer Loaders	3	5.00	65	0.37
Landscaping and Irrigation	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Rough Grading	Excavators	1	5.00	158	0.38
Rough Grading	Graders	0	8.00	187	0.41
Rough Grading	Plate Compactors	1	5.00	8	0.43
Rough Grading	Rubber Tired Dozers	1	5.00	247	0.40
Rough Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Concrete	Cranes	0	8.00	231	0.29
Concrete	Forklifts	0	7.00	89	0.20
Concrete	Generator Sets	0	8.00	84	0.74
Concrete	Graders	1	5.00	187	0.41
Concrete	Plate Compactors	1	5.00	8	0.43
Concrete	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Concrete	Welders	0	8.00	46	0.45
Paving and Striping	Cement and Mortar Mixers	0	8.00	9	0.56
Paving and Striping	Graders	1	5.00	187	0.41
Paving and Striping	Pavers	1	5.00	130	0.42
Paving and Striping	Paving Equipment	0	8.00	132	0.36
Paving and Striping	Rollers	0	8.00	80	0.38
Paving and Striping	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Utility Installation	Tractors/Loaders/Backhoes	2	5.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition of Building 20 Lath and Greenhouse	6	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Debris Recycling and Hauling	4	8.00	0.00	83.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Redwood Tree Removal	1	16.00	0.00	3.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Landscaping and Irrigation	5	8.00	1.00	2.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	3	10.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete	2	12.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving and Striping	2	16.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utility Installation	2	8.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition of Building 20 Lath and Greenhouse - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3284	0.0000	0.3284	0.0497	0.0000	0.0497			0.0000			0.0000
Off-Road	2.1805	23.4396	13.6597	0.0236		1.1386	1.1386		1.0475	1.0475		2,374.1793	2,374.1793	0.7391		2,392.6572
Total	**2.1805**	**23.4396**	**13.6597**	**0.0236**	**0.3284**	**1.1386**	**1.4670**	**0.0497**	**1.0475**	**1.0972**		**2,374.1793**	**2,374.1793**	**0.7391**		**2,392.6572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0395	0.0251	0.3040	9.8000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		98.1344	98.1344	2.2800e-003		98.1913
Total	**0.0395**	**0.0251**	**0.3040**	**9.8000e-004**	**0.0986**	**6.1000e-004**	**0.0992**	**0.0262**	**5.6000e-004**	**0.0267**		**98.1344**	**98.1344**	**2.2800e-003**		**98.1913**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3284	0.0000	0.3284	0.0497	0.0000	0.0497			0.0000			0.0000
Off-Road	0.2895	1.2546	14.5870	0.0236		0.0386	0.0386		0.0386	0.0386	0.0000	2,374.1793	2,374.1793	0.7391		2,392.6572
Total	**0.2895**	**1.2546**	**14.5870**	**0.0236**	**0.3284**	**0.0386**	**0.3670**	**0.0497**	**0.0386**	**0.0883**	**0.0000**	**2,374.1793**	**2,374.1793**	**0.7391**		**2,392.6572**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0395	0.0251	0.3040	9.8000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		98.1344	98.1344	2.2800e-003		98.1913

Total	**0.0395**	**0.0251**	**0.3040**	**9.8000e-004**	**0.0986**	**6.1000e-004**	**0.0992**	**0.0262**	**5.6000e-004**	**0.0267**		**98.1344**	**98.1344**	**2.2800e-003**		**98.1913**

3.2 Demolition of Building 20 Lath and Greenhouse - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3284	0.0000	0.3284	0.0497	0.0000	0.0497			0.0000			0.0000
Off-Road	2.0701	21.7977	13.5131	0.0236		1.0593	1.0593		0.9745	0.9745		2,334.5995	2,334.5995	0.7386		2,353.0656
Total	**2.0701**	**21.7977**	**13.5131**	**0.0236**	**0.3284**	**1.0593**	**1.3876**	**0.0497**	**0.9745**	**1.0242**		**2,334.5995**	**2,334.5995**	**0.7386**		**2,353.0656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0358	0.0220	0.2728	9.5000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		95.0782	95.0782	2.0100e-003		95.1285
Total	**0.0358**	**0.0220**	**0.2728**	**9.5000e-004**	**0.0986**	**6.1000e-004**	**0.0992**	**0.0262**	**5.6000e-004**	**0.0267**		**95.0782**	**95.0782**	**2.0100e-003**		**95.1285**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3284	0.0000	0.3284	0.0497	0.0000	0.0497			0.0000			0.0000
Off-Road	0.2895	1.2546	14.5870	0.0236		0.0386	0.0386		0.0386	0.0386	0.0000	2,334.5995	2,334.5995	0.7386		2,353.0656
Total	**0.2895**	**1.2546**	**14.5870**	**0.0236**	**0.3284**	**0.0386**	**0.3670**	**0.0497**	**0.0386**	**0.0883**	**0.0000**	**2,334.5995**	**2,334.5995**	**0.7386**		**2,353.0656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0358	0.0220	0.2728	9.5000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		95.0782	95.0782	2.0100e-003		95.1285

Total	**0.0358**	**0.0220**	**0.2728**	**9.5000e-004**	**0.0986**	**6.1000e-004**	**0.0992**	**0.0262**	**5.6000e-004**	**0.0267**		**95.0782**	**95.0782**	**2.0100e-003**		**95.1285**

3.3 Debris Recycling and Hauling - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6955	11.3454	11.0005	0.0175		0.8302	0.8302		0.8302	0.8302		1,661.3253	1,661.3253	0.1520		1,665.1256
Total	**1.6955**	**11.3454**	**11.0005**	**0.0175**		**0.8302**	**0.8302**		**0.8302**	**0.8302**		**1,661.3253**	**1,661.3253**	**0.1520**		**1,665.1256**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0546	1.7988	0.6927	4.7800e-003	0.1551	8.5300e-003	0.1636	0.0410	8.1600e-003	0.0491		536.0652	536.0652	0.0627		537.6318
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0264	0.0167	0.2027	6.6000e-004	0.0657	4.1000e-004	0.0661	0.0174	3.7000e-004	0.0178		65.4229	65.4229	1.5200e-003		65.4609
Total	**0.0810**	**1.8156**	**0.8953**	**5.4400e-003**	**0.2208**	**8.9400e-003**	**0.2298**	**0.0584**	**8.5300e-003**	**0.0669**		**601.4881**	**601.4881**	**0.0642**		**603.0927**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1754	0.7601	10.8163	0.0175		0.0234	0.0234		0.0234	0.0234	0.0000	1,661.3253	1,661.3253	0.1520		1,665.1256
Total	**0.1754**	**0.7601**	**10.8163**	**0.0175**		**0.0234**	**0.0234**		**0.0234**	**0.0234**	**0.0000**	**1,661.3253**	**1,661.3253**	**0.1520**		**1,665.1256**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0546	1.7988	0.6927	4.7800e-003	0.1551	8.5300e-003	0.1636	0.0410	8.1600e-003	0.0491		536.0652	536.0652	0.0627		537.6318
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0264	0.0167	0.2027	6.6000e-004	0.0657	4.1000e-004	0.0661	0.0174	3.7000e-004	0.0178		65.4229	65.4229	1.5200e-003		65.4609

Total	**0.0810**	**1.8156**	**0.8953**	**5.4400e-003**	**0.2208**	**8.9400e-003**	**0.2298**	**0.0584**	**8.5300e-003**	**0.0669**		**601.4881**	**601.4881**	**0.0642**		**603.0927**

3.3 Debris Recycling and Hauling - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5172	10.3603	10.9303	0.0175		0.7045	0.7045		0.7045	0.7045		1,661.3253	1,661.3253	0.1345		1,664.6871
Total	**1.5172**	**10.3603**	**10.9303**	**0.0175**		**0.7045**	**0.7045**		**0.7045**	**0.7045**		**1,661.3253**	**1,661.3253**	**0.1345**		**1,664.6871**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0518	1.6954	0.7048	4.6900e-003	0.2204	7.8200e-003	0.2283	0.0570	7.4800e-003	0.0645		528.1358	528.1358	0.0639		529.7327
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0239	0.0147	0.1819	6.4000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		63.3855	63.3855	1.3400e-003		63.4190
Total	**0.0757**	**1.7101**	**0.8867**	**5.3300e-003**	**0.2862**	**8.2200e-003**	**0.2944**	**0.0744**	**7.8500e-003**	**0.0823**		**591.5213**	**591.5213**	**0.0652**		**593.1517**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1754	0.7601	10.8163	0.0175		0.0234	0.0234		0.0234	0.0234	0.0000	1,661.3253	1,661.3253	0.1345		1,664.6871
Total	**0.1754**	**0.7601**	**10.8163**	**0.0175**		**0.0234**	**0.0234**		**0.0234**	**0.0234**	**0.0000**	**1,661.3253**	**1,661.3253**	**0.1345**		**1,664.6871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0518	1.6954	0.7048	4.6900e-003	0.2204	7.8200e-003	0.2283	0.0570	7.4800e-003	0.0645		528.1358	528.1358	0.0639		529.7327
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0239	0.0147	0.1819	6.4000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		63.3855	63.3855	1.3400e-003		63.4190

Total	**0.0757**	**1.7101**	**0.8867**	**5.3300e-003**	**0.2862**	**8.2200e-003**	**0.2944**	**0.0744**	**7.8500e-003**	**0.0823**		**591.5213**	**591.5213**	**0.0652**		**593.1517**

3.4 Redwood Tree Removal - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5707	6.8208	2.5219	5.7700e-003		0.2952	0.2952		0.2716	0.2716		580.5979	580.5979	0.1808		585.1166
Total	**0.5707**	**6.8208**	**2.5219**	**5.7700e-003**		**0.2952**	**0.2952**		**0.2716**	**0.2716**		**580.5979**	**580.5979**	**0.1808**		**585.1166**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0230	0.7586	0.2921	2.0200e-003	0.0434	3.6000e-003	0.0470	0.0119	3.4400e-003	0.0153		226.0516	226.0516	0.0264		226.7122
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0527	0.0334	0.4053	1.3100e-003	0.1314	8.1000e-004	0.1323	0.0349	7.5000e-004	0.0356		130.8458	130.8458	3.0400e-003		130.9217
Total	**0.0758**	**0.7920**	**0.6974**	**3.3300e-003**	**0.1748**	**4.4100e-003**	**0.1792**	**0.0467**	**4.1900e-003**	**0.0509**		**356.8974**	**356.8974**	**0.0295**		**357.6339**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0709	0.3072	2.5993	5.7700e-003		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	580.5979	580.5979	0.1808		585.1166
Total	**0.0709**	**0.3072**	**2.5993**	**5.7700e-003**		**9.4500e-003**	**9.4500e-003**		**9.4500e-003**	**9.4500e-003**	**0.0000**	**580.5979**	**580.5979**	**0.1808**		**585.1166**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0230	0.7586	0.2921	2.0200e-003	0.0434	3.6000e-003	0.0470	0.0119	3.4400e-003	0.0153		226.0516	226.0516	0.0264		226.7122
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0527	0.0334	0.4053	1.3100e-003	0.1314	8.1000e-004	0.1323	0.0349	7.5000e-004	0.0356		130.8458	130.8458	3.0400e-003		130.9217

Total	**0.0758**	**0.7920**	**0.6974**	**3.3300e-003**	**0.1748**	**4.4100e-003**	**0.1792**	**0.0467**	**4.1900e-003**	**0.0509**		**356.8974**	**356.8974**	**0.0295**		**357.6339**

3.5 Rough Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0579	0.0000	4.0579	2.1024	0.0000	2.1024			0.0000			0.0000
Off-Road	0.8971	9.3797	4.8486	8.8600e-003		0.4549	0.4549		0.4190	0.4190		869.3959	869.3959	0.2705		876.1581
Total	**0.8971**	**9.3797**	**4.8486**	**8.8600e-003**	**4.0579**	**0.4549**	**4.5128**	**2.1024**	**0.4190**	**2.5214**		**869.3959**	**869.3959**	**0.2705**		**876.1581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.6600e-003	0.1256	0.0469	2.7000e-004	6.7500e-003	8.7000e-004	7.6200e-003	1.9400e-003	8.4000e-004	2.7800e-003		29.7014	29.7014	2.5700e-003		29.7657
Worker	0.0298	0.0184	0.2274	7.9000e-004	0.0822	5.0000e-004	0.0827	0.0218	4.7000e-004	0.0223		79.2318	79.2318	1.6800e-003		79.2737
Total	**0.0345**	**0.1440**	**0.2743**	**1.0600e-003**	**0.0889**	**1.3700e-003**	**0.0903**	**0.0237**	**1.3100e-003**	**0.0250**		**108.9332**	**108.9332**	**4.2500e-003**		**109.0395**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0579	0.0000	4.0579	2.1024	0.0000	2.1024			0.0000			0.0000
Off-Road	0.1051	0.4552	4.8448	8.8600e-003		0.0140	0.0140		0.0140	0.0140	0.0000	869.3959	869.3959	0.2705		876.1581
Total	**0.1051**	**0.4552**	**4.8448**	**8.8600e-003**	**4.0579**	**0.0140**	**4.0719**	**2.1024**	**0.0140**	**2.1164**	**0.0000**	**869.3959**	**869.3959**	**0.2705**		**876.1581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.6600e-003	0.1256	0.0469	2.7000e-004	6.7500e-003	8.7000e-004	7.6200e-003	1.9400e-003	8.4000e-004	2.7800e-003		29.7014	29.7014	2.5700e-003		29.7657
Worker	0.0298	0.0184	0.2274	7.9000e-004	0.0822	5.0000e-004	0.0827	0.0218	4.7000e-004	0.0223		79.2318	79.2318	1.6800e-003		79.2737

Total	**0.0345**	**0.1440**	**0.2743**	**1.0600e-003**	**0.0889**	**1.3700e-003**	**0.0903**	**0.0237**	**1.3100e-003**	**0.0250**		**108.9332**	**108.9332**	**4.2500e-003**		**109.0395**

3.6 Utility Installation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2910	2.9217	2.8784	3.8800e-003		0.1951	0.1951		0.1795	0.1795		384.4273	384.4273	0.1216		387.4680
Total	**0.2910**	**2.9217**	**2.8784**	**3.8800e-003**		**0.1951**	**0.1951**		**0.1795**	**0.1795**		**384.4273**	**384.4273**	**0.1216**		**387.4680**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0140	0.3769	0.1408	8.1000e-004	0.0203	2.6200e-003	0.0229	5.8300e-003	2.5100e-003	8.3300e-003		89.1043	89.1043	7.7200e-003		89.2972
Worker	0.0239	0.0147	0.1819	6.4000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		63.3855	63.3855	1.3400e-003		63.4190
Total	**0.0379**	**0.3915**	**0.3227**	**1.4500e-003**	**0.0860**	**3.0200e-003**	**0.0890**	**0.0233**	**2.8800e-003**	**0.0261**		**152.4897**	**152.4897**	**9.0600e-003**		**152.7162**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0475	0.2057	2.9276	3.8800e-003		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	384.4273	384.4273	0.1216		387.4680
Total	**0.0475**	**0.2057**	**2.9276**	**3.8800e-003**		**6.3300e-003**	**6.3300e-003**		**6.3300e-003**	**6.3300e-003**	**0.0000**	**384.4273**	**384.4273**	**0.1216**		**387.4680**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0140	0.3769	0.1408	8.1000e-004	0.0203	2.6200e-003	0.0229	5.8300e-003	2.5100e-003	8.3300e-003		89.1043	89.1043	7.7200e-003		89.2972
Worker	0.0239	0.0147	0.1819	6.4000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		63.3855	63.3855	1.3400e-003		63.4190

Total	**0.0379**	**0.3915**	**0.3227**	**1.4500e-003**	**0.0860**	**3.0200e-003**	**0.0890**	**0.0233**	**2.8800e-003**	**0.0261**		**152.4897**	**152.4897**	**9.0600e-003**		**152.7162**

3.7 Concrete - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3293	4.2693	1.2803	4.4500e-003		0.1381	0.1381		0.1275	0.1275		432.5666	432.5666	0.1323		435.8736
Total	**0.3293**	**4.2693**	**1.2803**	**4.4500e-003**		**0.1381**	**0.1381**		**0.1275**	**0.1275**		**432.5666**	**432.5666**	**0.1323**		**435.8736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0140	0.3769	0.1408	8.1000e-004	0.0203	2.6200e-003	0.0229	5.8300e-003	2.5100e-003	8.3300e-003		89.1043	89.1043	7.7200e-003		89.2972
Worker	0.0358	0.0220	0.2728	9.5000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		95.0782	95.0782	2.0100e-003		95.1285
Total	**0.0498**	**0.3989**	**0.4136**	**1.7600e-003**	**0.1188**	**3.2300e-003**	**0.1221**	**0.0320**	**3.0700e-003**	**0.0350**		**184.1825**	**184.1825**	**9.7300e-003**		**184.4257**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0507	0.2197	1.8593	4.4500e-003		6.7600e-003	6.7600e-003		6.7600e-003	6.7600e-003	0.0000	432.5666	432.5666	0.1323		435.8736
Total	**0.0507**	**0.2197**	**1.8593**	**4.4500e-003**		**6.7600e-003**	**6.7600e-003**		**6.7600e-003**	**6.7600e-003**	**0.0000**	**432.5666**	**432.5666**	**0.1323**		**435.8736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0140	0.3769	0.1408	8.1000e-004	0.0203	2.6200e-003	0.0229	5.8300e-003	2.5100e-003	8.3300e-003		89.1043	89.1043	7.7200e-003		89.2972
Worker	0.0358	0.0220	0.2728	9.5000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		95.0782	95.0782	2.0100e-003		95.1285

Total	**0.0498**	**0.3989**	**0.4136**	**1.7600e-003**	**0.1188**	**3.2300e-003**	**0.1221**	**0.0320**	**3.0700e-003**	**0.0350**		**184.1825**	**184.1825**	**9.7300e-003**		**184.4257**

3.8 Paving and Striping - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4840	6.0651	2.9623	7.0900e-003		0.2276	0.2276		0.2094	0.2094		701.9533	701.9533	0.2221		707.5056
Paving	0.1677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6517**	**6.0651**	**2.9623**	**7.0900e-003**		**0.2276**	**0.2276**		**0.2094**	**0.2094**		**701.9533**	**701.9533**	**0.2221**		**707.5056**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.6600e-003	0.1256	0.0469	2.7000e-004	6.7500e-003	8.7000e-004	7.6200e-003	1.9400e-003	8.4000e-004	2.7800e-003		29.7014	29.7014	2.5700e-003		29.7657
Worker	0.0478	0.0294	0.3638	1.2700e-003	0.1314	8.1000e-004	0.1322	0.0349	7.4000e-004	0.0356		126.7709	126.7709	2.6800e-003		126.8380
Total	**0.0524**	**0.1550**	**0.4107**	**1.5400e-003**	**0.1382**	**1.6800e-003**	**0.1399**	**0.0368**	**1.5800e-003**	**0.0384**		**156.4723**	**156.4723**	**5.2500e-003**		**156.6037**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0868	0.3762	4.0862	7.0900e-003		0.0116	0.0116		0.0116	0.0116	0.0000	701.9533	701.9533	0.2221		707.5056
Paving	0.1677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2545**	**0.3762**	**4.0862**	**7.0900e-003**		**0.0116**	**0.0116**		**0.0116**	**0.0116**	**0.0000**	**701.9533**	**701.9533**	**0.2221**		**707.5056**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.6600e-003	0.1256	0.0469	2.7000e-004	6.7500e-003	8.7000e-004	7.6200e-003	1.9400e-003	8.4000e-004	2.7800e-003		29.7014	29.7014	2.5700e-003		29.7657
Worker	0.0478	0.0294	0.3638	1.2700e-003	0.1314	8.1000e-004	0.1322	0.0349	7.4000e-004	0.0356		126.7709	126.7709	2.6800e-003		126.8380

Total	**0.0524**	**0.1550**	**0.4107**	**1.5400e-003**	**0.1382**	**1.6800e-003**	**0.1399**	**0.0368**	**1.5800e-003**	**0.0384**		**156.4723**	**156.4723**	**5.2500e-003**		**156.6037**

3.9 Landscaping and Irrigation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7638	0.0000	3.7638	2.0689	0.0000	2.0689			0.0000			0.0000
Off-Road	1.0132	11.1196	6.7233	0.0112		0.5623	0.5623		0.5173	0.5173		1,104.2552	1,104.2552	0.3494		1,112.9896
Total	**1.0132**	**11.1196**	**6.7233**	**0.0112**	**3.7638**	**0.5623**	**4.3261**	**2.0689**	**0.5173**	**2.5862**		**1,104.2552**	**1,104.2552**	**0.3494**		**1,112.9896**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.3700e-003	0.1430	0.0594	4.0000e-004	8.6700e-003	6.6000e-004	9.3300e-003	2.3700e-003	6.3000e-004	3.0000e-003		44.5416	44.5416	5.3900e-003		44.6763
Vendor	4.6600e-003	0.1256	0.0469	2.7000e-004	6.7500e-003	8.7000e-004	7.6200e-003	1.9400e-003	8.4000e-004	2.7800e-003		29.7014	29.7014	2.5700e-003		29.7657
Worker	0.0239	0.0147	0.1819	6.4000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		63.3855	63.3855	1.3400e-003		63.4190
Total	**0.0329**	**0.2833**	**0.2883**	**1.3100e-003**	**0.0811**	**1.9300e-003**	**0.0831**	**0.0217**	**1.8400e-003**	**0.0236**		**137.6285**	**137.6285**	**9.3000e-003**		**137.8610**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7638	0.0000	3.7638	2.0689	0.0000	2.0689			0.0000			0.0000
Off-Road	0.1845	2.5652	6.8025	0.0112		0.0182	0.0182		0.0182	0.0182	0.0000	1,104.2552	1,104.2552	0.3494		1,112.9896
Total	**0.1845**	**2.5652**	**6.8025**	**0.0112**	**3.7638**	**0.0182**	**3.7820**	**2.0689**	**0.0182**	**2.0871**	**0.0000**	**1,104.2552**	**1,104.2552**	**0.3494**		**1,112.9896**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.3700e-003	0.1430	0.0594	4.0000e-004	8.6700e-003	6.6000e-004	9.3300e-003	2.3700e-003	6.3000e-004	3.0000e-003		44.5416	44.5416	5.3900e-003		44.6763
Vendor	4.6600e-003	0.1256	0.0469	2.7000e-004	6.7500e-003	8.7000e-004	7.6200e-003	1.9400e-003	8.4000e-004	2.7800e-003		29.7014	29.7014	2.5700e-003		29.7657
Worker	0.0239	0.0147	0.1819	6.4000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		63.3855	63.3855	1.3400e-003		63.4190

Total	**0.0329**	**0.2833**	**0.2883**	**1.3100e-003**	**0.0811**	**1.9300e-003**	**0.0831**	**0.0217**	**1.8400e-003**	**0.0236**		**137.6285**	**137.6285**	**9.3000e-003**		**137.8610**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.498968	0.049513	0.248277	0.134909	0.018184	0.006326	0.020670	0.006254	0.003828	0.003354	0.008577	0.000418	0.000722
Parking Lot	0.498968	0.049513	0.248277	0.134909	0.018184	0.006326	0.020670	0.006254	0.003828	0.003354	0.008577	0.000418	0.000722

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0343	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Unmitigated	0.0343	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.9800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0256					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Landscaping	6.9000e-004	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Total	**0.0343**	**7.0000e-005**	**7.2800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**		**0.0165**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.9800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0256					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.9000e-004	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Total	**0.0343**	**7.0000e-005**	**7.2800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**		**0.0165**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

CalEEMod Daily Output Files - Winter

Building 20 Demolition Project - Construction

San Mateo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	69.85	1000sqft	1.60	69,850.00	0
City Park	0.80	Acre	0.80	16,585.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	70
Climate Zone	5			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - City park land use represents the landscaped areas of the parking lot. Parking lot is staying the same size. Reuced landscaped area per new total size of 86,435

Construction Phase - Schedule information provided by project applicant in air quality-GHG-noise data request 12.13.17.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Off-road Equipment - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18.

Trips and VMT - Vendor trips = concrete & water trucks. 3 days of tree removal, assuming 1 trip/day. 83 haul trips is for hauling demo material from building 20. Worst case, because most debris will be recycled on site

Demolition - Demo info provided by project applicant in air quality-GHG-noise data request 5.16.18 (910 cy). Assuming 1 cy of concrete scrap, loose = 1.855 (CalRecycle)

Grading - Equipment information provided by project applicant in air quality-GHG-noise data request 5.16.18. 104,835 square feet graded, which includes slopes being removed

Vehicle Trips - No increase in vehicle trips

Construction Off-road Equipment Mitigation - Tier 4 Mitigation based on mitigation measure CSM-AQE-3 in certified EIR.

Land Use Change -

Sequestration -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	3.00	10.00
tblConstructionPhase	NumDays	6.00	10.00
tblConstructionPhase	NumDays	220.00	5.00
tblConstructionPhase	NumDays	10.00	25.00
tblGrading	AcresOfGrading	0.00	2.40
tblGrading	MaterialImported	0.00	3,500.00
tblLandUse	LandUseSquareFeet	34,848.00	16,585.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblSequestration	NumberOfNewTrees	0.00	-127.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripNumber	83.00	0.00

tblTripsAndVMT	HaulingTripNumber	0.00	83.00
tblTripsAndVMT	HaulingTripNumber	0.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingTripNumber	438.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	14.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblTripsAndVMT	WorkerTripNumber	3.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	36.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	16.00
tblTripsAndVMT	WorkerTripNumber	5.00	8.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.6569	44.3714	29.0647	0.0564	0.8226	2.2781	3.1007	0.1810	2.1627	2.3437	0.0000	5,651.1782	5,651.1782	1.1679	0.0000	5,680.3748
2019	4.6409	43.5052	30.7112	0.0572	4.8599	2.2290	7.0889	2.2764	2.1078	4.3842	0.0000	5,643.3807	5,643.3807	1.2151	0.0000	5,673.7590
Maximum	**4.6569**	**44.3714**	**30.7112**	**0.0572**	**4.8599**	**2.2781**	**7.0889**	**2.2764**	**2.1627**	**4.3842**	**0.0000**	**5,651.1782**	**5,651.1782**	**1.2151**	**0.0000**	**5,680.3748**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.7459	5.0874	29.8853	0.0564	0.8226	0.0855	0.9081	0.1810	0.0849	0.2658	0.0000	5,651.1782	5,651.1782	1.1679	0.0000	5,680.3748
2019	0.7265	4.4374	31.6673	0.0572	4.8599	0.0863	4.9462	2.2764	0.0858	2.3622	0.0000	5,643.3807	5,643.3807	1.2151	0.0000	5,673.7590
Maximum	**0.7459**	**5.0874**	**31.6673**	**0.0572**	**4.8599**	**0.0863**	**4.9462**	**2.2764**	**0.0858**	**2.3622**	**0.0000**	**5,651.1782**	**5,651.1782**	**1.2151**	**0.0000**	**5,680.3748**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**84.16**	**89.16**	**-2.97**	**0.00**	**0.00**	**96.19**	**42.55**	**0.00**	**96.00**	**60.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0343	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0343**	**7.0000e-005**	**7.2800e-003**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**	**0.0000**	**0.0165**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0343	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0343**	**7.0000e-005**	**7.2800e-003**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**	**0.0000**	**0.0165**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition of Building 20 Lath and Greenhouse	Demolition	11/5/2018	1/18/2019	5	55	
2	Debris Recycling and Hauling	Demolition	12/3/2018	1/18/2019	5	35	
3	Redwood Tree Removal	Demolition	12/3/2018	12/5/2018	5	3	
4	Rough Grading	Grading	1/14/2019	1/25/2019	5	10	
5	Utility Installation	Trenching	2/4/2019	3/4/2019	5	21	
6	Concrete	Building Construction	3/11/2019	3/15/2019	5	5	
7	Paving and Striping	Paving	3/18/2019	4/19/2019	5	25	
8	Landscaping and Irrigation	Site Preparation	4/22/2019	5/3/2019	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Demolition of Building 20 Lath and Greenhouse	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition of Building 20 Lath and Greenhouse	Excavators	4	5.00	158	0.38
Demolition of Building 20 Lath and Greenhouse	Rubber Tired Dozers	2	5.00	247	0.40
Demolition of Building 20 Lath and Greenhouse	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Debris Recycling and Hauling	Concrete/Industrial Saws	0	8.00	81	0.73
Debris Recycling and Hauling	Crushing/Proc. Equipment	4	5.00	85	0.78
Debris Recycling and Hauling	Rubber Tired Dozers	0	8.00	247	0.40
Debris Recycling and Hauling	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Redwood Tree Removal	Concrete/Industrial Saws	0	8.00	81	0.73
Redwood Tree Removal	Cranes	1	8.00	231	0.29
Redwood Tree Removal	Rubber Tired Dozers	0	8.00	247	0.40
Redwood Tree Removal	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Landscaping and Irrigation	Graders	0	8.00	187	0.41
Landscaping and Irrigation	Rubber Tired Dozers	1	5.00	247	0.40
Landscaping and Irrigation	Scrapers	0	8.00	367	0.48
Landscaping and Irrigation	Skid Steer Loaders	3	5.00	65	0.37
Landscaping and Irrigation	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Rough Grading	Excavators	1	5.00	158	0.38
Rough Grading	Graders	0	8.00	187	0.41
Rough Grading	Plate Compactors	1	5.00	8	0.43
Rough Grading	Rubber Tired Dozers	1	5.00	247	0.40
Rough Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Concrete	Cranes	0	8.00	231	0.29
Concrete	Forklifts	0	7.00	89	0.20
Concrete	Generator Sets	0	8.00	84	0.74
Concrete	Graders	1	5.00	187	0.41
Concrete	Plate Compactors	1	5.00	8	0.43
Concrete	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Concrete	Welders	0	8.00	46	0.45
Paving and Striping	Cement and Mortar Mixers	0	8.00	9	0.56
Paving and Striping	Graders	1	5.00	187	0.41
Paving and Striping	Pavers	1	5.00	130	0.42
Paving and Striping	Paving Equipment	0	8.00	132	0.36
Paving and Striping	Rollers	0	8.00	80	0.38
Paving and Striping	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Utility Installation	Tractors/Loaders/Backhoes	2	5.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition of Building 20 Lath and Greenhouse	6	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Debris Recycling and Hauling	4	8.00	0.00	83.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Redwood Tree Removal	1	16.00	0.00	3.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Landscaping and Irrigation	5	8.00	1.00	2.00	10.80	7.30	50.00	LD_Mix	HDT_Mix	HHDT
Rough Grading	3	10.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Concrete	2	12.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving and Striping	2	16.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utility Installation	2	8.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition of Building 20 Lath and Greenhouse - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3284	0.0000	0.3284	0.0497	0.0000	0.0497			0.0000			0.0000
Off-Road	2.1805	23.4396	13.6597	0.0236		1.1386	1.1386		1.0475	1.0475		2,374.1793	2,374.1793	0.7391		2,392.6572
Total	**2.1805**	**23.4396**	**13.6597**	**0.0236**	**0.3284**	**1.1386**	**1.4670**	**0.0497**	**1.0475**	**1.0972**		**2,374.1793**	**2,374.1793**	**0.7391**		**2,392.6572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0439	0.0310	0.2977	9.2000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		92.0834	92.0834	2.1900e-003		92.1382
Total	**0.0439**	**0.0310**	**0.2977**	**9.2000e-004**	**0.0986**	**6.1000e-004**	**0.0992**	**0.0262**	**5.6000e-004**	**0.0267**		**92.0834**	**92.0834**	**2.1900e-003**		**92.1382**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3284	0.0000	0.3284	0.0497	0.0000	0.0497			0.0000			0.0000
Off-Road	0.2895	1.2546	14.5870	0.0236		0.0386	0.0386		0.0386	0.0386	0.0000	2,374.1793	2,374.1793	0.7391		2,392.6572
Total	**0.2895**	**1.2546**	**14.5870**	**0.0236**	**0.3284**	**0.0386**	**0.3670**	**0.0497**	**0.0386**	**0.0883**	**0.0000**	**2,374.1793**	**2,374.1793**	**0.7391**		**2,392.6572**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0439	0.0310	0.2977	9.2000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		92.0834	92.0834	2.1900e-003		92.1382

Total	**0.0439**	**0.0310**	**0.2977**	**9.2000e-004**	**0.0986**	**6.1000e-004**	**0.0992**	**0.0262**	**5.6000e-004**	**0.0267**		**92.0834**	**92.0834**	**2.1900e-003**		**92.1382**

3.2 Demolition of Building 20 Lath and Greenhouse - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3284	0.0000	0.3284	0.0497	0.0000	0.0497			0.0000			0.0000
Off-Road	2.0701	21.7977	13.5131	0.0236		1.0593	1.0593		0.9745	0.9745		2,334.5995	2,334.5995	0.7386		2,353.0656
Total	**2.0701**	**21.7977**	**13.5131**	**0.0236**	**0.3284**	**1.0593**	**1.3876**	**0.0497**	**0.9745**	**1.0242**		**2,334.5995**	**2,334.5995**	**0.7386**		**2,353.0656**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0398	0.0272	0.2655	8.9000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		89.2167	89.2167	1.9300e-003		89.2650
Total	**0.0398**	**0.0272**	**0.2655**	**8.9000e-004**	**0.0986**	**6.1000e-004**	**0.0992**	**0.0262**	**5.6000e-004**	**0.0267**		**89.2167**	**89.2167**	**1.9300e-003**		**89.2650**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3284	0.0000	0.3284	0.0497	0.0000	0.0497			0.0000			0.0000
Off-Road	0.2895	1.2546	14.5870	0.0236		0.0386	0.0386		0.0386	0.0386	0.0000	2,334.5995	2,334.5995	0.7386		2,353.0656
Total	**0.2895**	**1.2546**	**14.5870**	**0.0236**	**0.3284**	**0.0386**	**0.3670**	**0.0497**	**0.0386**	**0.0883**	**0.0000**	**2,334.5995**	**2,334.5995**	**0.7386**		**2,353.0656**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0398	0.0272	0.2655	8.9000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		89.2167	89.2167	1.9300e-003		89.2650

Total	**0.0398**	**0.0272**	**0.2655**	**8.9000e-004**	**0.0986**	**6.1000e-004**	**0.0992**	**0.0262**	**5.6000e-004**	**0.0267**		**89.2167**	**89.2167**	**1.9300e-003**		**89.2650**

3.3 Debris Recycling and Hauling - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6955	11.3454	11.0005	0.0175		0.8302	0.8302		0.8302	0.8302		1,661.3253	1,661.3253	0.1520		1,665.1256
Total	**1.6955**	**11.3454**	**11.0005**	**0.0175**		**0.8302**	**0.8302**		**0.8302**	**0.8302**		**1,661.3253**	**1,661.3253**	**0.1520**		**1,665.1256**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0552	1.8799	0.6960	4.7600e-003	0.1551	8.6300e-003	0.1637	0.0410	8.2500e-003	0.0492		533.7502	533.7502	0.0629		535.3225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0206	0.1985	6.2000e-004	0.0657	4.1000e-004	0.0661	0.0174	3.7000e-004	0.0178		61.3889	61.3889	1.4600e-003		61.4255
Total	**0.0845**	**1.9006**	**0.8945**	**5.3800e-003**	**0.2208**	**9.0400e-003**	**0.2299**	**0.0584**	**8.6200e-003**	**0.0670**		**595.1391**	**595.1391**	**0.0644**		**596.7479**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1754	0.7601	10.8163	0.0175		0.0234	0.0234		0.0234	0.0234	0.0000	1,661.3253	1,661.3253	0.1520		1,665.1256
Total	**0.1754**	**0.7601**	**10.8163**	**0.0175**		**0.0234**	**0.0234**		**0.0234**	**0.0234**	**0.0000**	**1,661.3253**	**1,661.3253**	**0.1520**		**1,665.1256**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0552	1.8799	0.6960	4.7600e-003	0.1551	8.6300e-003	0.1637	0.0410	8.2500e-003	0.0492		533.7502	533.7502	0.0629		535.3225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0206	0.1985	6.2000e-004	0.0657	4.1000e-004	0.0661	0.0174	3.7000e-004	0.0178		61.3889	61.3889	1.4600e-003		61.4255

Total	**0.0845**	**1.9006**	**0.8945**	**5.3800e-003**	**0.2208**	**9.0400e-003**	**0.2299**	**0.0584**	**8.6200e-003**	**0.0670**		**595.1391**	**595.1391**	**0.0644**		**596.7479**

3.3 Debris Recycling and Hauling - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5172	10.3603	10.9303	0.0175		0.7045	0.7045		0.7045	0.7045		1,661.3253	1,661.3253	0.1345		1,664.6871
Total	**1.5172**	**10.3603**	**10.9303**	**0.0175**		**0.7045**	**0.7045**		**0.7045**	**0.7045**		**1,661.3253**	**1,661.3253**	**0.1345**		**1,664.6871**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0522	1.7717	0.7040	4.6700e-003	0.2204	7.9100e-003	0.2283	0.0570	7.5600e-003	0.0646		525.8260	525.8260	0.0641		527.4275
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0265	0.0181	0.1770	6.0000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		59.4778	59.4778	1.2900e-003		59.5100
Total	**0.0788**	**1.7898**	**0.8810**	**5.2700e-003**	**0.2862**	**8.3100e-003**	**0.2945**	**0.0744**	**7.9300e-003**	**0.0824**		**585.3038**	**585.3038**	**0.0654**		**586.9375**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1754	0.7601	10.8163	0.0175		0.0234	0.0234		0.0234	0.0234	0.0000	1,661.3253	1,661.3253	0.1345		1,664.6871
Total	**0.1754**	**0.7601**	**10.8163**	**0.0175**		**0.0234**	**0.0234**		**0.0234**	**0.0234**	**0.0000**	**1,661.3253**	**1,661.3253**	**0.1345**		**1,664.6871**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0522	1.7717	0.7040	4.6700e-003	0.2204	7.9100e-003	0.2283	0.0570	7.5600e-003	0.0646		525.8260	525.8260	0.0641		527.4275
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0265	0.0181	0.1770	6.0000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		59.4778	59.4778	1.2900e-003		59.5100

Total	**0.0788**	**1.7898**	**0.8810**	**5.2700e-003**	**0.2862**	**8.3100e-003**	**0.2945**	**0.0744**	**7.9300e-003**	**0.0824**		**585.3038**	**585.3038**	**0.0654**		**586.9375**

3.4 Redwood Tree Removal - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5707	6.8208	2.5219	5.7700e-003		0.2952	0.2952		0.2716	0.2716		580.5979	580.5979	0.1808		585.1166
Total	**0.5707**	**6.8208**	**2.5219**	**5.7700e-003**		**0.2952**	**0.2952**		**0.2716**	**0.2716**		**580.5979**	**580.5979**	**0.1808**		**585.1166**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0233	0.7927	0.2935	2.0100e-003	0.0434	3.6400e-003	0.0470	0.0119	3.4800e-003	0.0153		225.0754	225.0754	0.0265		225.7384
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0585	0.0413	0.3969	1.2300e-003	0.1314	8.1000e-004	0.1323	0.0349	7.5000e-004	0.0356		122.7778	122.7778	2.9200e-003		122.8509
Total	**0.0818**	**0.8340**	**0.6904**	**3.2400e-003**	**0.1748**	**4.4500e-003**	**0.1793**	**0.0467**	**4.2300e-003**	**0.0510**		**347.8532**	**347.8532**	**0.0294**		**348.5893**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0709	0.3072	2.5993	5.7700e-003		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	580.5979	580.5979	0.1808		585.1166
Total	**0.0709**	**0.3072**	**2.5993**	**5.7700e-003**		**9.4500e-003**	**9.4500e-003**		**9.4500e-003**	**9.4500e-003**	**0.0000**	**580.5979**	**580.5979**	**0.1808**		**585.1166**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0233	0.7927	0.2935	2.0100e-003	0.0434	3.6400e-003	0.0470	0.0119	3.4800e-003	0.0153		225.0754	225.0754	0.0265		225.7384
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0585	0.0413	0.3969	1.2300e-003	0.1314	8.1000e-004	0.1323	0.0349	7.5000e-004	0.0356		122.7778	122.7778	2.9200e-003		122.8509

Total	**0.0818**	**0.8340**	**0.6904**	**3.2400e-003**	**0.1748**	**4.4500e-003**	**0.1793**	**0.0467**	**4.2300e-003**	**0.0510**		**347.8532**	**347.8532**	**0.0294**		**348.5893**

3.5 Rough Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0579	0.0000	4.0579	2.1024	0.0000	2.1024			0.0000			0.0000
Off-Road	0.8971	9.3797	4.8486	8.8600e-003		0.4549	0.4549		0.4190	0.4190		869.3959	869.3959	0.2705		876.1581
Total	**0.8971**	**9.3797**	**4.8486**	**8.8600e-003**	**4.0579**	**0.4549**	**4.5128**	**2.1024**	**0.4190**	**2.5214**		**869.3959**	**869.3959**	**0.2705**		**876.1581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8800e-003	0.1278	0.0513	2.7000e-004	6.7500e-003	8.9000e-004	7.6400e-003	1.9400e-003	8.5000e-004	2.8000e-003		29.1922	29.1922	2.6400e-003		29.2582
Worker	0.0331	0.0227	0.2213	7.5000e-004	0.0822	5.0000e-004	0.0827	0.0218	4.7000e-004	0.0223		74.3473	74.3473	1.6100e-003		74.3875
Total	**0.0380**	**0.1505**	**0.2726**	**1.0200e-003**	**0.0889**	**1.3900e-003**	**0.0903**	**0.0237**	**1.3200e-003**	**0.0251**		**103.5394**	**103.5394**	**4.2500e-003**		**103.6457**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0579	0.0000	4.0579	2.1024	0.0000	2.1024			0.0000			0.0000
Off-Road	0.1051	0.4552	4.8448	8.8600e-003		0.0140	0.0140		0.0140	0.0140	0.0000	869.3959	869.3959	0.2705		876.1581
Total	**0.1051**	**0.4552**	**4.8448**	**8.8600e-003**	**4.0579**	**0.0140**	**4.0719**	**2.1024**	**0.0140**	**2.1164**	**0.0000**	**869.3959**	**869.3959**	**0.2705**		**876.1581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8800e-003	0.1278	0.0513	2.7000e-004	6.7500e-003	8.9000e-004	7.6400e-003	1.9400e-003	8.5000e-004	2.8000e-003		29.1922	29.1922	2.6400e-003		29.2582
Worker	0.0331	0.0227	0.2213	7.5000e-004	0.0822	5.0000e-004	0.0827	0.0218	4.7000e-004	0.0223		74.3473	74.3473	1.6100e-003		74.3875

Total	**0.0380**	**0.1505**	**0.2726**	**1.0200e-003**	**0.0889**	**1.3900e-003**	**0.0903**	**0.0237**	**1.3200e-003**	**0.0251**		**103.5394**	**103.5394**	**4.2500e-003**		**103.6457**

3.6 Utility Installation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2910	2.9217	2.8784	3.8800e-003		0.1951	0.1951		0.1795	0.1795		384.4273	384.4273	0.1216		387.4680
Total	**0.2910**	**2.9217**	**2.8784**	**3.8800e-003**		**0.1951**	**0.1951**		**0.1795**	**0.1795**		**384.4273**	**384.4273**	**0.1216**		**387.4680**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0146	0.3835	0.1540	8.0000e-004	0.0203	2.6800e-003	0.0229	5.8300e-003	2.5600e-003	8.3900e-003		87.5765	87.5765	7.9200e-003		87.7746
Worker	0.0265	0.0181	0.1770	6.0000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		59.4778	59.4778	1.2900e-003		59.5100
Total	**0.0411**	**0.4016**	**0.3310**	**1.4000e-003**	**0.0860**	**3.0800e-003**	**0.0891**	**0.0233**	**2.9300e-003**	**0.0262**		**147.0543**	**147.0543**	**9.2100e-003**		**147.2846**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0475	0.2057	2.9276	3.8800e-003		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	384.4273	384.4273	0.1216		387.4680
Total	**0.0475**	**0.2057**	**2.9276**	**3.8800e-003**		**6.3300e-003**	**6.3300e-003**		**6.3300e-003**	**6.3300e-003**	**0.0000**	**384.4273**	**384.4273**	**0.1216**		**387.4680**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0146	0.3835	0.1540	8.0000e-004	0.0203	2.6800e-003	0.0229	5.8300e-003	2.5600e-003	8.3900e-003		87.5765	87.5765	7.9200e-003		87.7746
Worker	0.0265	0.0181	0.1770	6.0000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		59.4778	59.4778	1.2900e-003		59.5100

Total	**0.0411**	**0.4016**	**0.3310**	**1.4000e-003**	**0.0860**	**3.0800e-003**	**0.0891**	**0.0233**	**2.9300e-003**	**0.0262**		**147.0543**	**147.0543**	**9.2100e-003**		**147.2846**

3.7 Concrete - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3293	4.2693	1.2803	4.4500e-003		0.1381	0.1381		0.1275	0.1275		432.5666	432.5666	0.1323		435.8736
Total	**0.3293**	**4.2693**	**1.2803**	**4.4500e-003**		**0.1381**	**0.1381**		**0.1275**	**0.1275**		**432.5666**	**432.5666**	**0.1323**		**435.8736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0146	0.3835	0.1540	8.0000e-004	0.0203	2.6800e-003	0.0229	5.8300e-003	2.5600e-003	8.3900e-003		87.5765	87.5765	7.9200e-003		87.7746
Worker	0.0398	0.0272	0.2655	8.9000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		89.2167	89.2167	1.9300e-003		89.2650
Total	**0.0544**	**0.4107**	**0.4196**	**1.6900e-003**	**0.1188**	**3.2900e-003**	**0.1221**	**0.0320**	**3.1200e-003**	**0.0351**		**176.7932**	**176.7932**	**9.8500e-003**		**177.0396**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0507	0.2197	1.8593	4.4500e-003		6.7600e-003	6.7600e-003		6.7600e-003	6.7600e-003	0.0000	432.5666	432.5666	0.1323		435.8736
Total	**0.0507**	**0.2197**	**1.8593**	**4.4500e-003**		**6.7600e-003**	**6.7600e-003**		**6.7600e-003**	**6.7600e-003**	**0.0000**	**432.5666**	**432.5666**	**0.1323**		**435.8736**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0146	0.3835	0.1540	8.0000e-004	0.0203	2.6800e-003	0.0229	5.8300e-003	2.5600e-003	8.3900e-003		87.5765	87.5765	7.9200e-003		87.7746
Worker	0.0398	0.0272	0.2655	8.9000e-004	0.0986	6.1000e-004	0.0992	0.0262	5.6000e-004	0.0267		89.2167	89.2167	1.9300e-003		89.2650

Total	**0.0544**	**0.4107**	**0.4196**	**1.6900e-003**	**0.1188**	**3.2900e-003**	**0.1221**	**0.0320**	**3.1200e-003**	**0.0351**		**176.7932**	**176.7932**	**9.8500e-003**		**177.0396**

3.8 Paving and Striping - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4840	6.0651	2.9623	7.0900e-003		0.2276	0.2276		0.2094	0.2094		701.9533	701.9533	0.2221		707.5056
Paving	0.1677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6517**	**6.0651**	**2.9623**	**7.0900e-003**		**0.2276**	**0.2276**		**0.2094**	**0.2094**		**701.9533**	**701.9533**	**0.2221**		**707.5056**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8800e-003	0.1278	0.0513	2.7000e-004	6.7500e-003	8.9000e-004	7.6400e-003	1.9400e-003	8.5000e-004	2.8000e-003		29.1922	29.1922	2.6400e-003		29.2582
Worker	0.0530	0.0363	0.3541	1.1900e-003	0.1314	8.1000e-004	0.1322	0.0349	7.4000e-004	0.0356		118.9557	118.9557	2.5700e-003		119.0200
Total	**0.0579**	**0.1641**	**0.4054**	**1.4600e-003**	**0.1382**	**1.7000e-003**	**0.1399**	**0.0368**	**1.5900e-003**	**0.0384**		**148.1478**	**148.1478**	**5.2100e-003**		**148.2782**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0868	0.3762	4.0862	7.0900e-003		0.0116	0.0116		0.0116	0.0116	0.0000	701.9533	701.9533	0.2221		707.5056
Paving	0.1677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2545**	**0.3762**	**4.0862**	**7.0900e-003**		**0.0116**	**0.0116**		**0.0116**	**0.0116**	**0.0000**	**701.9533**	**701.9533**	**0.2221**		**707.5056**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8800e-003	0.1278	0.0513	2.7000e-004	6.7500e-003	8.9000e-004	7.6400e-003	1.9400e-003	8.5000e-004	2.8000e-003		29.1922	29.1922	2.6400e-003		29.2582
Worker	0.0530	0.0363	0.3541	1.1900e-003	0.1314	8.1000e-004	0.1322	0.0349	7.4000e-004	0.0356		118.9557	118.9557	2.5700e-003		119.0200

Total	**0.0579**	**0.1641**	**0.4054**	**1.4600e-003**	**0.1382**	**1.7000e-003**	**0.1399**	**0.0368**	**1.5900e-003**	**0.0384**		**148.1478**	**148.1478**	**5.2100e-003**		**148.2782**

3.9 Landscaping and Irrigation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7638	0.0000	3.7638	2.0689	0.0000	2.0689			0.0000			0.0000
Off-Road	1.0132	11.1196	6.7233	0.0112		0.5623	0.5623		0.5173	0.5173		1,104.2552	1,104.2552	0.3494		1,112.9896
Total	**1.0132**	**11.1196**	**6.7233**	**0.0112**	**3.7638**	**0.5623**	**4.3261**	**2.0689**	**0.5173**	**2.5862**		**1,104.2552**	**1,104.2552**	**0.3494**		**1,112.9896**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4100e-003	0.1494	0.0594	3.9000e-004	8.6700e-003	6.7000e-004	9.3400e-003	2.3700e-003	6.4000e-004	3.0100e-003		44.3468	44.3468	5.4000e-003		44.4818
Vendor	4.8800e-003	0.1278	0.0513	2.7000e-004	6.7500e-003	8.9000e-004	7.6400e-003	1.9400e-003	8.5000e-004	2.8000e-003		29.1922	29.1922	2.6400e-003		29.2582
Worker	0.0265	0.0181	0.1770	6.0000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		59.4778	59.4778	1.2900e-003		59.5100
Total	**0.0358**	**0.2954**	**0.2877**	**1.2600e-003**	**0.0811**	**1.9600e-003**	**0.0831**	**0.0217**	**1.8600e-003**	**0.0236**		**133.0168**	**133.0168**	**9.3300e-003**		**133.2500**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7638	0.0000	3.7638	2.0689	0.0000	2.0689			0.0000			0.0000
Off-Road	0.1845	2.5652	6.8025	0.0112		0.0182	0.0182		0.0182	0.0182	0.0000	1,104.2552	1,104.2552	0.3494		1,112.9896
Total	**0.1845**	**2.5652**	**6.8025**	**0.0112**	**3.7638**	**0.0182**	**3.7820**	**2.0689**	**0.0182**	**2.0871**	**0.0000**	**1,104.2552**	**1,104.2552**	**0.3494**		**1,112.9896**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4100e-003	0.1494	0.0594	3.9000e-004	8.6700e-003	6.7000e-004	9.3400e-003	2.3700e-003	6.4000e-004	3.0100e-003		44.3468	44.3468	5.4000e-003		44.4818
Vendor	4.8800e-003	0.1278	0.0513	2.7000e-004	6.7500e-003	8.9000e-004	7.6400e-003	1.9400e-003	8.5000e-004	2.8000e-003		29.1922	29.1922	2.6400e-003		29.2582
Worker	0.0265	0.0181	0.1770	6.0000e-004	0.0657	4.0000e-004	0.0661	0.0174	3.7000e-004	0.0178		59.4778	59.4778	1.2900e-003		59.5100

Total	**0.0358**	**0.2954**	**0.2877**	**1.2600e-003**	**0.0811**	**1.9600e-003**	**0.0831**	**0.0217**	**1.8600e-003**	**0.0236**		**133.0168**	**133.0168**	**9.3300e-003**		**133.2500**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.498968	0.049513	0.248277	0.134909	0.018184	0.006326	0.020670	0.006254	0.003828	0.003354	0.008577	0.000418	0.000722
Parking Lot	0.498968	0.049513	0.248277	0.134909	0.018184	0.006326	0.020670	0.006254	0.003828	0.003354	0.008577	0.000418	0.000722

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0343	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Unmitigated	0.0343	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.9800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0256					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Landscaping	6.9000e-004	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Total	**0.0343**	**7.0000e-005**	**7.2800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**		**0.0165**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.9800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0256					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.9000e-004	7.0000e-005	7.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0165
Total	**0.0343**	**7.0000e-005**	**7.2800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**		**0.0165**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Health Risk Assessment Tables

SUMMARY OF DPM

	ONSITE DPM - OFFROAD									ONSITE DPM - ONROAD TRUCKS										offroad combined			onroad combined			
	2018					2019					2018					2019											
Building	Start date[1]	End date[1]	Days (2018)	DPM (tons)	DPM (grams)	Start date[1]	End date[1]	Days (2019)	DPM (tons)	DPM (grams)	Start date[1]	End date[1]	Days (2018)	DPM (tons)	DPM (grams)	Start date[1]	End date[1]	Days (2018)	DPM (tons)	DPM (grams)	DPM g	days	g/d	DPM g	days	g/d	g/d, scaled
Demolition of Building 20 Lath and Greenhouse	11/5/2018	1/18/2019	41	0.0008	716.676	11/5/2018	1/18/2019	14	0.000	244.940	11/5/2018	1/18/2019	41	0.00000	0.000	11/5/2018	1/18/2019	14	0.00000	0.000	961.616	55	17.484	0.000	55.000	0.000	0.000
Removal of Redwood Tree	12/3/2018	12/5/2018	3	0.0000	9.072	12/3/2018	12/5/2018	0	0.000	0.000	12/3/2018	12/5/2018	3	0.00001	9.072	12/3/2018	12/5/2018	0	0.000		9.072	3	3.024	9.072	3.000	3.024	0.139
Debris Recycling and Hauling	12/3/2018	1/18/2019	21	0.0003	226.796	12/3/2018	1/18/2019	14	0.000	145.150	12/3/2018	1/18/2019	21	0.00009	81.647	12/3/2018	1/18/2019	14	0.000	45.359	371.946	35	10.627	127.006	35.000	3.629	0.167
Rough Grading	1/14/2019	1/25/2019	0	0.0000	0.000	1/14/2019	1/25/2019	10	0.001	468.278	1/14/2019	1/25/2019	0	0.00000	0.000	1/14/2019	1/25/2019	10	0.000	0.000	468.278	10	46.828	0.000	10.000	0.000	0.000
Utility Installation	2/4/2019	3/4/2019	0	0.0000	0.000	2/4/2019	3/4/2019	21	0.001	913.530	2/4/2019	3/4/2019	0	0.00000	0.000	2/4/2019	3/4/2019	21	0.000	27.216	913.530	21	43.501	27.216	21.000	1.296	0.181
Concrete	3/11/2019	3/15/2019	0	0.0000	0.000	3/11/2019	3/15/2019	5	0.000	220.531	3/11/2019	3/15/2019	0	0.00000	0.000	3/11/2019	3/15/2019	5	0.000	9.072	220.531	5	44.106	9.072	5.000	1.814	0.254
Paving and Striping	3/18/2019	4/19/2019	0	0.0000	0.000	3/18/2019	4/19/2019	25	0.001	1138.943	3/18/2019	4/19/2019	0	0.00000	0.000	3/18/2019	4/19/2019	25	0.00001	9.072	1138.943	25	45.558	9.072	25.000	0.363	0.051
Landscaping and Irrigation	4/22/2019	5/3/2019	0	0.0000	0.000	4/22/2019	5/3/2019	10	0.001	486.422	4/22/2019	5/3/2019	0	0.00000	0.000	4/22/2019	5/3/2019	10	0.00000	0.000	486.422	10	48.642	0.00E+00	10.000	0.000	0.000
Total	11/5/2018	12/31/2018	41	0.001	952.544			10	0.004	3617.794			41	0.00010	90.718			10	0.00010	90.72	4570.338	51.000	89.614	181.437	51.000	3.558	0.792
	11/5/2018	5/3/2019	130					51.000	0.005	4570.338								51.000	0.000200	181.436948							

seconds/hour	3600
work hours/day	8
seconds per work day	28800

OFFROAD

				Days in Bin per OEHHA		g/day	total g		g/sec		g/sec-m2		days sum	
g/s Calc	Start date1	End date1	days	3rd tri	0<2		3rd tri	0<2	3rd tri	0<2	3rd tri	0<2		
Demolition of Building 20 Lath and Greenhouse	11/5/2018	1/18/2019	55	55		17.484	961.616		6.07E-04		7.09E-08		55	
Removal of Redwood Tree	12/3/2018	12/5/2018	3	3		3.024	9.072		1.05E-04		1.23E-08		3	
Debris Recycling and Hauling	12/3/2018	1/18/2019	35	33	2	10.627	350.692	21.254	3.69E-04	3.69E-04	4.31E-08	4.31E-08	35	
Rough Grading	1/14/2019	1/25/2019	10		10	46.828		468.278		1.63E-03		1.90E-07	10	
Utility Installation	2/4/2019	3/4/2019	21		21	43.501		913.530		1.51E-03		1.76E-07	21	
Concrete	3/11/2019	3/15/2019	5		5	44.106		220.531		1.53E-03		1.79E-07	5	
Paving and Striping	3/18/2019	4/19/2019	25		25	45.558		1138.943		1.58E-03		1.85E-07	25	
Landscaping and Irrigation	4/22/2019	5/3/2019	10		10	48.642		486.422		1.69E-03		1.97E-07	10	
Total				91	73		1321.379	3248.959	5.04E-04	1.55E-03	5.88E-08	1.80E-07	164	TRUE
			max per oehha	91	730									

ONROAD

	Total trips in Caleemod		caleemd trip length		Caleemod	aermod trip length		
VMT apportioning	vendor	haul	vendor	haul	avg trip length	avg trip length	VMT scalar	<-- using this to scale onroad DPM for each phase
Demolition of Building 20 Lath and Greenhouse	0	0	6.60	20		0.922487387		
Removal of Redwood Tree	0	3	6.60	20	20.0	0.922487387	0.046	
Debris Recycling and Hauling	0	83	6.60	20	20.0	0.922487387	0.046	
Rough Grading	1	0	6.60	20	6.6	0.922487387	0.14	
Utility Installation	3	0	6.60	20	6.6	0.922487387	0.14	
Concrete	3	0	6.60	20	6.6	0.922487387	0.14	
Paving and Striping	1	0	6.60	20	6.6	0.922487387	0.14	
Landscaping and Irrigation	1	2	6.60	20	15.5	0.922487387	0.059	
	9	88	6.60	20	18.8	0.922487387	0.049	

				Days in Bin		g/day,	g/day, aermod	total g		g/sec		g/sec-m2	
g/s Calc	Start date1	End date1	days	3rd tri	0<2	caeelmod		3rd tri	0<2	3rd tri	0<2	3rd tri	0<2
Demolition of Building 20 Lath and Greenhouse	11/5/2018	1/18/2019	55			0.000	0.000						
Removal of Redwood Tree	12/3/2018	12/5/2018	3	3		3.024	0.139	0.418		4.84E-06		4.66E-10	
Debris Recycling and Hauling	12/3/2018	1/18/2019	35	35		3.629	0.167	5.858		5.81E-06		5.59E-10	
Rough Grading	1/14/2019	1/25/2019	10	10		0.000	0.000	0.000		0.00E+00		0.00E+00	
Utility Installation	2/4/2019	3/4/2019	21	21		1.296	0.181	3.804		6.29E-06		6.05E-10	
Concrete	3/11/2019	3/15/2019	5	5		1.814	0.254	1.268		8.81E-06		8.47E-10	
Paving and Striping	3/18/2019	4/19/2019	25	17	8	0.363	0.051	0.862	0.406	1.76E-06	1.76E-06	1.69E-10	1.69E-10
Landscaping and Irrigation	4/22/2019	5/3/2019	10			0.000	0.000						
Total				91	8	10.126	0.792	12.211	0.406	4.66E-06	1.76E-06	4.48E-10	1.69E-10

Risk Calculations 2018 v2 Project - Highest Concentrations only							Scaling factor (g/s-m2)				Cancer Risk						HI	PM2.5
				AERMOD concentration ug/m3		Receptor Type	3rd tri		0<2		Scaled Concentration		Dose Inhallation by		Cancer Risk by Bin		Sum of Risk			Annual PM2.5 conc
Rec ID	Discrete Receptor ID (Group Name)	X	Y	OFFROAD	ONROAD		OFFROAD	ONROAD	OFFROAD	ONROAD	3rd tri	0<2	3rd tri	0<2	3rd tri	0<2	Summed Risk	Cases Per Million	Chr HI	
3	Res_off	558369	4154413	3207.81	1444.81	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.89E-04	5.79E-04	6.6E-08	6.0E-07	2.6E-09	1.9E-09	4.47721E-09	0.004	0.000154	5.79E-04
87	Res_off	558739	4154943	3230.20	1546.66	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.91E-04	5.83E-04	6.6E-08	6.1E-07	2.6E-09	1.9E-09	4.50908E-09	0.005	0.000155	5.83E-04
108	Res_off	558749	4154933	3385.60	1620.67	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.00E-04	6.11E-04	6.9E-08	6.4E-07	2.7E-09	2.0E-09	4.726E-09	0.005	0.000162	6.11E-04
109	Res_off	558749	4154943	3183.04	1547.04	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.88E-04	5.74E-04	6.5E-08	6.0E-07	2.6E-09	1.9E-09	4.4434E-09	0.004	0.000152	5.74E-04
131	Res_off	558759	4154923	3509.61	1685.09	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.07E-04	6.33E-04	7.2E-08	6.6E-07	2.8E-09	2.1E-09	4.89914E-09	0.005	0.000168	6.33E-04
132	Res_off	558759	4154933	3302.75	1609.06	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.95E-04	5.96E-04	6.8E-08	6.2E-07	2.7E-09	2.0E-09	4.61053E-09	0.005	0.000158	5.96E-04
156	Res_off	558769	4154923	3431.66	1670.51	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.03E-04	6.19E-04	7.0E-08	6.5E-07	2.8E-09	2.0E-09	4.79048E-09	0.005	0.000164	6.19E-04
157	Res_off	558769	4154933	3219.77	1589.56	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.90E-04	5.81E-04	6.6E-08	6.1E-07	2.6E-09	1.9E-09	4.49483E-09	0.004	0.000154	5.81E-04
181	Res_off	558779	4154923	3345.70	1644.19	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.98E-04	6.04E-04	6.8E-08	6.3E-07	2.7E-09	2.0E-09	4.67058E-09	0.005	0.00016	6.04E-04
182	Res_off	558779	4154933	3130.24	1566.22	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.85E-04	5.65E-04	6.4E-08	5.9E-07	2.5E-09	1.9E-09	4.36999E-09	0.004	0.00015	5.65E-04
206	Res_off	558789	4154913	3484.66	1698.98	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.06E-04	6.29E-04	7.1E-08	6.6E-07	2.8E-09	2.1E-09	4.86448E-09	0.005	0.000167	6.29E-04
207	Res_off	558789	4154923	3254.60	1616.82	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.92E-04	5.87E-04	6.7E-08	6.1E-07	2.6E-09	1.9E-09	4.54352E-09	0.005	0.000156	5.87E-04
232	Res_off	558799	4154903	3647.33	1755.01	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.15E-04	6.58E-04	7.5E-08	6.9E-07	2.9E-09	2.2E-09	5.09141E-09	0.005	0.000175	6.58E-04
233	Res_off	558799	4154913	3391.09	1667.08	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.00E-04	6.12E-04	6.9E-08	6.4E-07	2.7E-09	2.0E-09	4.73396E-09	0.005	0.000162	6.12E-04
234	Res_off	558799	4154923	3162.75	1586.79	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.87E-04	5.71E-04	6.5E-08	6.0E-07	2.5E-09	1.9E-09	4.41541E-09	0.004	0.000152	5.71E-04
259	Res_off	558809	4154893	3840.35	1813.92	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.27E-04	6.93E-04	7.9E-08	7.2E-07	3.1E-09	2.3E-09	5.36063E-09	0.005	0.000184	6.93E-04
260	Res_off	558809	4154903	3552.15	1718.86	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.10E-04	6.41E-04	7.3E-08	6.7E-07	2.9E-09	2.1E-09	4.95861E-09	0.005	0.00017	6.41E-04
261	Res_off	558809	4154913	3297.14	1632.89	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.95E-04	5.95E-04	6.7E-08	6.2E-07	2.6E-09	2.0E-09	4.60288E-09	0.005	0.000158	5.95E-04
287	Res_off	558819	4154893	3739.32	1773.35	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.21E-04	6.75E-04	7.6E-08	7.1E-07	3.0E-09	2.2E-09	5.21965E-09	0.005	0.000179	6.75E-04
288	Res_off	558819	4154903	3454.99	1680.51	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.04E-04	6.23E-04	7.1E-08	6.5E-07	2.8E-09	2.0E-09	4.82304E-09	0.005	0.000165	6.23E-04
289	Res_off	558819	4154913	3201.85	1596.07	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.89E-04	5.78E-04	6.5E-08	6.0E-07	2.6E-09	1.9E-09	4.46993E-09	0.004	0.000153	5.78E-04
316	Res_off	558829	4154893	3632.74	1730.64	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.15E-04	6.56E-04	7.4E-08	6.9E-07	2.9E-09	2.2E-09	5.07093E-09	0.005	0.000174	6.56E-04
317	Res_off	558829	4154903	3353.68	1639.30	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.98E-04	6.05E-04	6.9E-08	6.3E-07	2.7E-09	2.0E-09	4.68167E-09	0.005	0.000161	6.05E-04
344	Res_off	558839	4154893	3513.82	1686.03	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	2.08E-04	6.34E-04	7.2E-08	6.6E-07	2.8E-09	2.1E-09	4.90501E-09	0.005	0.000168	6.34E-04
345	Res_off	558839	4154903	3244.44	1594.34	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.92E-04	5.85E-04	6.6E-08	6.1E-07	2.6E-09	1.9E-09	4.52923E-09	0.005	0.000155	5.85E-04
372	Res_off	558849	4154903	3135.48	1552.25	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.85E-04	5.66E-04	6.4E-08	5.9E-07	2.5E-09	1.9E-09	4.37719E-09	0.004	0.00015	5.66E-04
1614	Res_off	558359	4154423	3141.17	1384.10	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.85E-04	5.67E-04	6.4E-08	5.9E-07	2.5E-09	1.9E-09	4.384E-09	0.004	0.00015	5.67E-04
1615	Res_off	558359	4154433	3185.19	1365.19	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.88E-04	5.75E-04	6.5E-08	6.0E-07	2.6E-09	1.9E-09	4.44518E-09	0.004	0.000153	5.75E-04
1616	Res_off	558359	4154443	3222.78	1345.09	Residential	5.88E-08	4.48E-10	1.80E-07	1.69E-10	1.90E-04	5.81E-04	6.6E-08	6.1E-07	2.6E-09	1.9E-09	4.49739E-09	0.004	0.000154	5.81E-04

Health Risk - Dose and Risk Factors and Values

Dose factors

$Dose\text{-}air = C_{air} \times (BR/BW) \times A \times EF \times 10^{-6}$ $Dose\text{-}air = (C_{air} \times WAF) \times (BR/BW) \times A \times EF \times 10^{-6}$

		3rd trimester	0<2	2<9	2<16	16<30	16-70	source
Daily Breath Rate (L/kg-day)	Residential	361	1090	631	572	261	233	OEHHA 2015, Table 5.6, 95th %ile for 3rdtri-2yrs old; 80th for other age groups
	Recreational	240	1200	640	520	240	230	OEHHA 2015, Table 5.8 (95th, moderate) for all bins but 3rd tri, which was taken from SJVU
	School	240	1200	640	520	240	230	SJVAPCD for 3rd tri; 95th percentile for all
A		1	1	1	1	1	1	OEHHA 2015, page 5-24
EF, Exposure frequency (unitless),	Residential	0.96	0.96	0.96	0.96	0.96	0.96	OEHHA 2015, page 5-24, 350 days/yr
	Recreational	0.036	0.036	0.036	0.036	0.036	0.036	3x/week, 2 hours/day, for 9 years
	School	0.12	0.12	0.12	0.12	0.12	0.12	180 days/yr, 6 hours/day
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/ug + m3/L)
Adjustment Factor (schools		1.00	1.00	1.00	1.00	1.00	1.00	Simlar to WAF; OEHHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

$RISK_{inh\text{-}res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$

CPF, DPM ($[mg/kg\text{-}day]^{-1}$)	1.1	1.1	1.1	1.1	1.1	1.1	OEHHA 2015, Table 7.1
Average Age Sensitivity Factor	10	10	3	3	1	1	OEHHA 2015, Table 8.3
AT, Average Time (days)	70	70	70	70	70	70	Averaging time for lifetime cancer risk
FAH	1.00	1.00	1.00	1.00	1.00	1.00	OEHHA 2015, Table 8.4: Use FAH = 1 if a school is within the 1×10-6 (or greater) cancer risk isopleth
ED, Exposure Duration (years)	see ED calculation sheet						
Chronic Inhalation Reference Exposure Level, respiratory, DPM	5						

San Mateo Ambient

Source ID	Name	Address	Cancer	Hazard	PM2.5	
17347	San Mateo	1700 W Hillsdale Blvd	1.6	0.00	0.00	Geneator, adjusted for distance to campus (onsite receptor); 900 feet
15349	San Mateo	1700 W Hillsdale Blvd	3.6	0.03	1.56	
SR 92	SR 92	-	3.0	0.00	0.03	<Measured at 500 feet
Total			8.2	0.03	1.6	

AERMOD output sheets available upon request

Appendix C

Cultural Resource Evaluation Memorandum

Memorandum

To:	Thomas Lo, San Mateo County Community College District
From:	Jon Rusch and Gretchen Hilyard, ICF
Date:	June 13, 2018
Re:	**Cultural Resource Evaluation Memorandum for the Building 20 Complex at College of San Mateo**

The San Mateo County Community College District (SMCCCD) is proposing to demolish the Building 20 complex[1] at the College of San Mateo (CSM) and to construct a surface parking lot with associated landscaping and infrastructure improvements. The proposal to demolish the Building 20 complex represents a change in the scope of project work described in SMCCCD's 2015 Facilities Master Plan Amendment EIR, which was certified by the SMCCCD Board of Trustees in December 2015 (State Clearinghouse Number 2015052007). SMCCCD is currently preparing a Subsequent Environmental Impact Report (SEIR) that considers potential environmental impacts of the project change.

The demolition of the Building 20 complex is subject to the requirements of the California Environmental Quality Act (CEQA) because the project site contains age-eligible resources that have the potential to be impacted by the proposed project. Three buildings within the CSM campus have previously been evaluated as a historic district eligible for listing in the California Register of Historical Resources (CRHR); Building 20 was not identified as a contributor to the CRHR-eligible district. The purpose of this technical memorandum is to review past historical resource evaluations of CSM campus facilities and to determine whether any component of the Building 20 complex requires further evaluation and/or qualifies as an individually eligible historical resource for the purposes of CEQA review.

Project Background

In 2006, SMCCCD adopted an Initial Study/ Mitigated Negative Declaration for Facility Improvements at College of San Mateo (2006 IS/MND). The facility improvement project, as defined in the 2006 IS/MND, involved the demolition of numerous buildings on the campus, the renovation

[1] As used in this memorandum, "Building 20 complex" refers to the complex comprising Building 20, adjacent greenhouse, lath house, garden areas, and adjacent parking lots.

of additional campus buildings, and improvements to landscape features and infrastructure such as plazas, pedestrian pathways, and roadway paving. The planned facility improvements included the renovation of Building 20. CSM campus facilities were not yet age-eligible (50 years old) at the time the 2006 IS/MND was prepared, and the document did not evaluate built historical resources for their eligibility for listing in the CRHR. The 2006 IS/MND determined that the facility improvement project would have No Impact on historical resources.

Subsequent to the adoption of the 2006 IS/MND, SMCCCD reassessed renovation costs and programming needs associated with the Building 20 complex. Due to the relocation of classes and programs previously housed in Building 20 into other campus facilities, SMCCCD proposed to demolish the Building 20 complex and construct a new parking lot. Under this proposal, portions of the north and south garden areas would be retained. In May 2011, SMCCCD adopted an Addendum to the 2006 IS/MND that evaluated the potential environmental impacts of the Building 20 complex demolition project (2011 Addendum). In June 2011, following the adoption of the Addendum, an association named the Friends of the College of San Mateo Gardens filed a lawsuit against SMCCCD. The petition prepared by the association stated that the 2011 Addendum failed to evaluate the historic resource status of the Building 20 complex. The 2011 Addendum was subsequently revised. The revised 2011 Addendum determined that demolition of the Building 20 complex would not result in a new or substantially more severe impact on historical resources than had been identified by the 2006 IS/MND. Following a series of court rulings and appeals, the First District Court of Appeals published a decision on May 5, 2017 that found that the 2011 Addendum to the 2006 IS/MND was not an appropriate CEQA document because there was substantial evidence to support a fair argument related to aesthetics that the project changes might have a significant effect on the environment.[2] This decision effectively overturned SMCCCD's adoption of the 2011 Addendum.

In December 2015, SMCCCD certified a Final Environmental Impact Report for the 2015 Facilities Master Plan Amendment (2015 Certified EIR). The 2015 Certified EIR analyzed various improvements at all three of SMCCCD's campuses, including CSM. The improvements proposed in the 2015 Facilities Master Plan Amendment at CSM included the demolition of numerous buildings, the renovation of other buildings, and new construction. The project analyzed in the 2015 Certified EIR did not propose any changes to the Building 20 complex due the litigation described above, which was pending at the time. The 2015 Certified EIR identified that the CSM campus contained a historic district eligible for listing in the CRHR; the Building 20 complex, however, was not identified as a contributor to this historic district. The 2015 Certified EIR determined that the project would have a less than significant impact on historical resources.

Since preparation of the 2015 Certified EIR, the need to provide parking at the Building 20 complex has re-emerged in the context of the planned Building 19, Emerging Technologies, which will be located adjacent to the Building 20 complex. The District has further developed the design and programming of the new Building 19, which was evaluated at a program level in the 2015 Certified EIR. The new Building 19 will serve students and the community as an academic and enterprise space providing business incubator and maker space programming. The programs housed within the new building will include the current Building 19 spaces and departments (Engineering,

[2] See *Friends of the College of San Mateo Gardens v. San Mateo Community College District, et al.* (1st Dist., Div. 1, 2017) 11 Cal.App.5th 596.

Drafting, Architecture, Electronics, Inspection, and Computer Science), with the addition of a Maker Space/Shop Spaces and a Co-Work Space. The multi-purpose Maker Space will house co-work/tech shop/prototyping/fabrication activities. The first floor of the 2-3 story building would be at the same grade as the Building 20 complex, with access provided through connecting regular and freight elevators.

The SEIR currently being prepared considers changes that SMCCCD has proposed to the project that was previously analyzed by the 2015 Certified EIR. Similar to the project analyzed in the 2011 IS/MND Addendum, the current project proposes to demolish the Building 20 complex. The current project proposes to replace the Building 20 complex with an expanded parking lot and accompanying accessibility and landscaping improvements. The current project will not only provide access for persons and deliveries to the new Building 19, but will also create a flow of indoor/outdoor space, consistent with the guiding design concepts for the new Building 19.

Methods

ICF architectural historian Jon Rusch reviewed previously completed environmental compliance documents and historic register evaluations related to the Building 20 complex and broader CSM campus, and conducted supplemental archival research to complete the historic resource evaluation of the Building 20 complex. A detailed description of the methods used to perform this study is provided below.

Records searches were previously conducted at the Northwest Information Center (NWIC) during the preparation of the 2006 IS/MND and 2015 Certified EIR. The results of these records searches were included in the respective environmental compliance documents. ICF has reviewed the records search results, including the *Cultural Resources Study of the College of San Mateo Project, AT&T Site No. CNU1796* and associated documentation of the CSM Fine and Performing Arts Building.

Historical Research

Additional resources consulted in the process of compiling this memorandum include the following:

- College of San Mateo Archives historic photographs, accessed via the CSM Library website;
- Historical issues of the *San Francisco Chronicle*, accessed via the San Francisco Public Library website;
- Online CSM catalog archive available on the CSM website;
- California Digital Newspaper Collection;
- Online Archive of California;
- Historicaerials.com.

Field Survey

ICF staff conducted a pedestrian survey of the Building 20 complex on August 16, 2017, December 7, 2017, and December 19, 2017 to confirm existing conditions, which were noted to not have changed

substantially since the completion of the 2015 Certified EIR. The survey involved photographic documentation of Building 20 in addition to the adjacent greenhouse, lath house, North Garden, and South Garden.

Brief Property Description

The Building 20 complex is located within the northeastern portion of the CSM campus, and is generally bounded on the north by Perimeter Road and on the south by Building 19 and Building 12. Buildings that comprise the complex include Building 20, the primary building located roughly in the center of the site, and the greenhouse and lath house located southeast-adjacent to Building 20. The complex also contains two landscaped areas located northwest and southeast of Building 20 (referred to as the North Garden and South Garden, respectively). The site is generally flat but is bounded to the southeast and southwest by steeply sloped terrain covered in trees and dense vegetation. Several stairways lead down the slopes to enter the South Garden. An asphalt walkway leads along the southern perimeter of the site; surface parking lots are located adjacent to Perimeter Road to the east of Building 20, greenhouse, and lath house.

Completed in 1963 as a component of the original CSM campus, Building 20 (Figure 1) was designed by architect John Carl Warnecke in the New Formalist architectural style. It is a one-story, cross-plan instructional building with arms of equal length. An open-air courtyard forms the center of the building's plan. The roof is flat and features widely overhanging eaves with shaped soffits. The exterior walls of the building are constructed of concrete. The walls comprising the outer ends of the building's arms feature evenly spaced, square concrete structural piers that are turned 45 degrees. Between the structural piers, the walls contain horizontal bands of aluminum-frame windows below the roofline. The exterior walls that form the sides of the building's arms have no windows but feature pedestrian and automobile doors.

Figure 1. Building 20, viewed facing south
Source: ICF

The greenhouse located adjacent to Building 20 (Figure 2) was constructed c.1965-1968 and designed by an unknown architect/builder. The metal-framed greenhouse is utilitarian in style; it has a square plan and three gabled roof forms. The exterior walls are constructed of a grid of metal mullions containing glass panes, above a concrete perimeter foundation. The interior of the building is accessed through a series of paired, partially glazed metal doors.

Figure 2. Building 20 greenhouse, viewed facing southeast
Source: ICF

The lath house (Figure 3) was constructed between 1968 and 1980 and designed by an unknown architect/builder. The lath house is formed by two small wood-framed storage buildings located to the southeast of the greenhouse and joined by a central, partially enclosed yard. The buildings express a minimally modernist architecture style and feature flat roofs with rafters exposed underneath the overhanging eaves. Exterior walls are clad in vertical-groove T1-11 plywood siding. The two buildings feature paired, vinyl-sash windows. The central yard between the two buildings is delineated by wood lath applied over a wood frame.

Figure 3. Central yard of the lath house, viewed facing southwest
Source: ICF

The North Garden (Figure 4) is characterized by an open, roughly circular-shaped grass lawn, bounded to the north and west by a band of dense plantings containing a variety of flowers, shrubs, and trees. Pedestrian circulation through the North Garden occurs via a network of paths. One curving concrete path meanders through the grass lawn and terminates at a circular brick-edged planting bed located near the north corner of the site. Brick paths radiate from the planting bed and lead through the planted area, connecting to a curvilinear path. While these planting beds and pathways remain intact, many are overgrown with vegetation. Overgrown vegetation restricts pedestrian circulation along some pathways. The identity of any landscape architect or designer associated with the North Garden is not known.

Figure 4. North Garden, viewed facing north
Source: ICF

The South Garden (Figure 5 and Figure 6) contains a demonstration garden located adjacent to the greenhouse and lath house. The demonstration garden features a variety of planting types within rectangular beds, which are divided by a network of brick and concrete walkways. The remainder of the South Garden is an open grass lawn containing light poles and a semi-mature *Metasequoia glyptostroboides* (dawn redwood) tree. The tree bears a bronze dedication plaque. A brick-paved patio with raised planting beds is also located within the South Garden, immediately south of Building 20. The identity of any landscape architect or designer associated with the South Garden is not known.

Figure 5. South Garden, viewed facing northwest; demonstration garden is at right
Source: ICF

Figure 6. Dawn redwood tree and bench located in the South Garden, viewed facing south
Source: ICF

Site Development History

Although the College of San Mateo was founded in 1922 as San Mateo Junior College, the institution did not occupy a purpose-built campus until the early 1960s. The college's principal home was the former San Mateo High School into the post-World War II era, although swelling enrollments required college functions to expand into supplemental off-site facilities. In light of the college's physical constraints into the 1950s, president and superintendent Dr. Julio Bortolazzo championed a new and consolidated campus for the College of San Mateo. The college adopted a 25-year campus master plan and began the process of acquiring a potential site located in the Barneson Heights section of the San Mateo hills, subsequently known College Heights. Swayed by Bortolazzo's advocacy campaign, San Mateo residents voted in favor of bond funding for construction of the campus. (San Mateo County Community College District 2015:3.4-5 to 3.4-6)

The approximately 150-acre College Heights site encompassed ranch land owned by building contractor L.C. Smith, in addition to a portion of the estate belonging to banking heir Celia Tobin Clark. Aerial photographs of the College Heights site prior to the campus's construction reveal a largely undeveloped area of rolling and forested hills; Borel Road bisected the site and separated the Smith and Tobin Clark properties. Grading of the College Heights site began in 1959, and ground was

broken the following year (San Mateo County Community College District 2015:3.4-6; *San Francisco Chronicle* 1958; National Environmental Title Research 1956).

Bay Area-based architect John Carl Warnecke was selected to design the new College Heights campus. Already widely respected for modernist designs of institutional buildings in the Bay Area, Warnecke developed a stylistic palette for CSM utilizing New Formalist design principles. Influenced by Frank Lloyd Wright's progressive design of facilities on the Florida Southern College campus as well as by Classical precedents, Warnecke's stately architectural scheme for College Heights aimed to elevate students' and the public's perception of the college (San Mateo County Community College District 2015:3.4-8). One of the distinguishing architectural elements proposed by Warnecke is the repeated concrete columns that divide building façades into an arrangement of evenly spaced bays. The primary façades of many of the buildings contain full-height glass within the bays, creating the appearance of broad, arched colonnades. The columns also support the projecting eaves and shaped soffits that reference entablatures used in Classical architecture. The colonnade theme is more literally employed in open-air breezeways attached to several of the campus buildings.

In spite of the common stylistic vocabulary used throughout the campus facilities, the articulation of particular design elements varied depending on an individual building's use and location within the overall campus design. Programmatically significant facilities—such as the Library, Gymnasium, and Fine and Performing Arts Center—were prominently sited on axis surrounding the landscaped mall that comprises the southern half of the campus; based on Warnecke's design, these buildings are the most monumental interpretations of the campus architectural scheme. The Library (Building 9) that anchors the east end of the southern mall, for instance, features a series of striking geometric screens that stand proud of the building's vertically oriented windows. The buildings surrounding the campus's northern mall repeated the same design elements as the Library and its neighbors but are somewhat less grand expressions of the New Formalist style employed by Warnecke. The cohesive architectural elements utilized in the campus's original buildings was enhanced through formal landscaping, which included orthogonal pathways, plantings, and reflecting pools located along the campus malls. (Many elements belonging to the original landscaping within the malls has subsequently been removed.) The new CSM campus was dedicated in late 1963 (San Mateo County Community College District 2015:3.4-6).

Building 20 is among the original facilities designed by Warnecke and completed in 1963. The building served as the long-term home of CSM's horticulture program and, later, student service offices. Sited to the east of, and down slope from, the axial mall that formed the northern half of the campus, Building 20 was physically removed somewhat from the core of the College Heights campus. Despite its slightly peripheral location, the Building 20 site was generously sized with adjacent grounds that ultimately were utilized in support of the classroom instruction that occurred in the adjacent building. The greenhouse, however, was not built during the initial construction campaign: early photographs of the College Heights campus documented that the areas south and north of Building 20—where the greenhouse, lath house, and North and South Gardens are currently located—contained large and open lawns covered in grass (Figure 7 and Figure 8). The only feature currently within the Building 20 site that appears in the earliest photographs available of the College Heights campus (c.1963-1965) is the asphalt paved walkway that leads along the slopes at the southeast and southwest edges of the site.

Figure 7. Aerial photograph of CSM campus, c.1963-1965, viewed facing southwest; the South Garden area adjacent to Building 20 is at right. Source: College of San Mateo Archives, Object ID csmch005095

Figure 8. Aerial photograph of CSM campus, c.1965, viewed facing northwest; the Building 20 site is left of center. Source: College of San Mateo Archives, Object ID csmch007290

The greenhouse had been constructed east of Building 20 by 1968, as documented in an aerial photograph taken that year (Figure 9). Completion of the greenhouse fulfilled Warnecke's original design for the Building 20 complex and provided space for plant storage and laboratory instruction. The lath house had not yet been constructed by 1968, however, and the Building 20 site retained its open character.

Archived CSM catalogs offer snapshots into the curricular and facility needs of the horticulture program. During the 1970-1971 academic year (the earliest year for which a catalog is available on the college's website), the program then offered two certificate programs—Ornamental Horticulture and Vocational Gardening—whose curricula included numerous courses that involved lab hours, which are presumed to have utilized the Building 20 greenhouse (College of San Mateo 1970:204-207). The following year, the program's offerings had expanded to include three certificate programs in addition to the Associate in Arts Degree with a major in Ornamental Horticulture (College of San Mateo 1971:57-58). By the end of the 1970s, an additional certificate program in floristry had been introduced (College of San Mateo 1979:91-92).

By 1980, the next year for which an aerial photograph documenting the CSM campus is available (Figure 10), the lath house and the orderly planting beds and walkways comprising the demonstration garden had been introduced, although the majority of the site surrounding Building 20 and its appurtenant buildings remained undeveloped. Like the greenhouse facility (Figure 11), the lath house supported horticulture instruction by providing a semi-protected space in which students cultivated plants. The demonstration garden, too, was utilized by students (Figure 12). Furthermore, the slopes to the south of the Building 20 complex had begun to be filled in by trees. The CSM catalog for the 1979-1980 academic year also noted that Building 20 contained the College Readiness Program in addition to the horticulture program (College of San Mateo 1979:224).

Figure 9. Building 20 Complex, photographed in 1968; the greenhouse had been constructed by this year.
Source: www.historicaerials.com

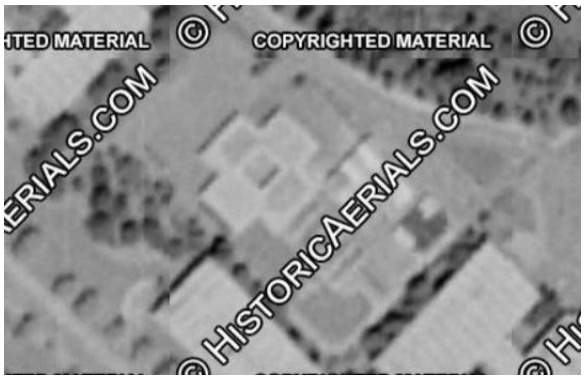

Figure 10. Building 20 Complex, photographed in 1980; the lath house and demonstration garden are visible.
Source: www.historicaerials.com

Figure 11. Horticulture faculty Alexander Graham with students inside the greenhouse, photographed in 1985
Source: College of San Mateo Archives, Object ID csmch002849

Figure 12. Graham and students in the demonstration garden, c.1988-1989
Source: College of San Mateo Archives, Object ID csmch002303

A review of available aerial photographs reveals that additional landscape features were introduced in the North Garden during the 1980s. A network of paths was in place by 1987, including the concrete-paved path that currently traverses through the lawn northwest of Building 20 (Figure 13). However, the dense and varied vegetation that currently characterizes the perimeter of the North Garden had not yet been planted. By the late 1980s, campus maps note that Building 20 housed the offices of the Extended Opportunity Programs and Services and Multicultural Center (College of San Mateo 1987:122). A 1993 aerial photograph reveals that the circular planting bed and radiating brick paths north of Building 20 had been constructed by this time (Figure 14). The photograph from this year is the first available that clearly shows the dawn redwood that stands near the edge of the South Garden.

Figure 13. Aerial photograph of the Building 20 site, 1987
Source: www.historicaerials.com

Figure 14. Aerial photograph of the Building 20 site, 1993
Source: U.S. Geological Survey, via Google Earth

Prior to 2005, a portion of the North Garden near the northern edge of the site had been cleared, and some plantings had been introduced (Figure 15). Trees located on the slopes bounding the south side of the site, as well as those that stood between Building 20 and the adjacent building to the northwest, had continued to mature during the intervening years, which screened Building 20 from nearby areas of the campus. A portion of the perimeter tree band, however, was removed due to the construction of the nearby Science Building and Planetarium (Building 36). This new facility, located to the west of the Building 20 complex, was placed across the CSM campus's axial north mall and introduced a physical and visual barrier that further separated Building 20 from the center of the campus. Landscape features in the immediate vicinity of Building 20 do not appear to have changed substantially since this time, although mature trees along the northern boundary of the site were removed c.2015 when the neighboring building was demolished (Figure 16).

Figure 15. Aerial photograph of the Building 20 site, 2005
Source: U.S. Geological Survey, via Google Earth

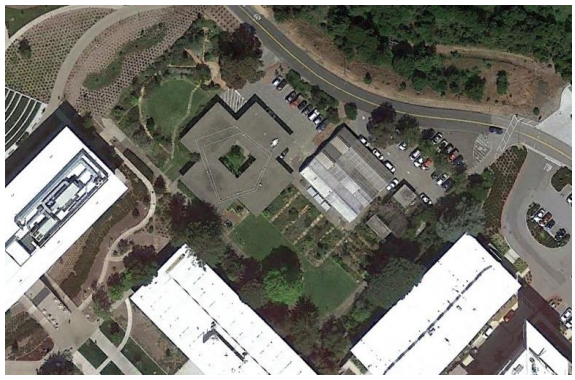

Figure 16. Aerial photograph of the Building 20 site, 2016
Source: Google Earth

Following the turn of the twenty-first century, the CSM horticulture program offered the Associate in Science degrees in three subareas of environmental horticulture, as well as the Associate in Arts degree in floristry (College of San Mateo 2001:84). However, after declines in course enrollments and degrees awarded, the CSM horticulture program was put on hiatus in 2009, and in 2011, the SMCCCD Board of Trustees voted to eliminate the program beginning in the fall of 2012 (Sen 2011). The discontinuation of the horticulture program resulted in the disuse of Building 20, greenhouse, and lath house. The facilities are currently vacant.

Previous Evaluations

The historic resource status of the CSM campus has been evaluated during the preparation of previous environmental compliance documents. In 2011, Historic Resource Associates evaluated the CSM campus for eligibility for listing in the National Register of Historic Places (NRHP) as part of the Section 106 compliance process for the collocation of new telecommunications equipment within the CSM campus. At this time, evaluators prepared the *Cultural Resources Study of the College of San Mateo Project, AT&T Site No. CNU1796*, which included a discussion of the development context of the entire CSM campus. The evaluation also involved the documentation of the College of San Mateo Fine and Performing Arts Building (Building 3) on Department of Parks and Recreation (DPR) Primary Record and Building, Structure, & Object Record forms. Historic Resource Associates' 2011 evaluation determined that original buildings belonging to the CSM campus, designed by John Carl Warnecke and completed in 1963, appeared to be an NRHP-eligible historic district. However, the 2011 evaluation did not fully document which campus buildings were contributors to the historic district, stating that "the contributing buildings include the Fine and Performing Arts (Building 3), Administration (Building 1), Gymnasium (Building 8), and Library (Building 9)" (Historic Resource Associates 2011:2). The 2011 DPR forms specify that the resource was eligible for NRHP listing under Criteria A, B, and C, and has a period of significance of 1963. Historic Resource Associates' 2011 evaluation did not document whether any buildings within the CSM campus, including Building 20, were eligible for listing in the NRHP as individual resources.

The 2015 Certified EIR summarized the 2011 evaluation of the CSM campus and generally concurred with its findings, although evaluators specified that the Fine Arts Complex, Library, and Administration Building "appear to be the only buildings eligible for listing in the CRHR as contributors to the NRHP-eligible College of San Mateo Historic District under Criteria 1, 2, and 3" (San Mateo County Community College District 2015:3.4-16). The 2015 documentation of the CRHR-eligible historic district determined that new buildings and landscape features constructed at CSM since 2000 have intruded upon much of the original campus's site layout and spatial relationships, thus lowering the campus's integrity of design. The three buildings identified as contributors to the CRHR-eligible historic district "continue to be visually connected and together represent the original elements of Warnecke's design intent as a grand Modernist university with formal axes" (San Mateo County Community College District 2015:3.4-15), whereas other extant campus buildings no longer convey an association with the original campus design. Additionally, the 2015 Certified EIR determined that the "Fine Arts Complex and Library also appear to be eligible for listing in the CRHR under Criteria 1, 2, and 3" (San Mateo County Community College District 2015:3.4-16).

California Register Evaluation

The following evaluation considers whether the Building 20 complex meets the eligibility criteria for listing in the CRHR, for the purposes of CEQA review. These evaluative criteria are closely based on those developed by the National Park Service (NPS) for the NRHR. In order to be eligible for listing in the CRHR, a resource must demonstrate significance under one or more of the following criteria:

- **Criterion 1 (Events):** Resources that are 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 (Persons):** Resources that are 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 represent 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.

Criterion 1: The Building 20 complex is not significant under Criterion 1. Building 20 was initially constructed to provide instructional facilities for CSM's horticulture program, and was subsequently expanded through the construction of the adjacent greenhouse, lath house, and demonstration garden. The facilities and landscaped areas that comprise the Building 20 complex housed the college's horticulture programs, which included two certificate options during the early 1970s but ultimately grew to offer Associates degrees in several sub-areas in addition to a certificate in floristry. Following CSM's relocation to the College Heights campus during the early 1960s, horticulture was one of numerous subjects for which CSM offered majors and career programs in the fine arts, social sciences, life sciences, health occupations, business, and vocational fields. CSM provided horticulture instruction to many students at the Building 20 complex with the mission of enhancing professional skills and academic credentials. However, based on a review of regional newspapers and CSM catalogs, it does not appear that CSM's horticulture career program was significant for pioneering new forms of instruction in the field or influencing horticultural research at the national, state, or local level. Research did not yield any evidence that horticulture was a field for which CSM was distinguished among community or junior colleges in California during the post-World War II period. For this reason, the Building 20 complex constructed to support horticulture instruction on the CSM College Heights campus, inclusive of the surrounding landscape features, does not have associations with significant events and is not eligible for listing in the CRHR under Criterion 1.

Criterion 2: The Building 20 complex is not significant under CRHR Criterion 2. Research did not reveal that instructors associated with the horticulture career program at CSM—which utilized Building 20, adjacent buildings, and gardens—were noted as being significant for their roles as educators. Furthermore, numerous students have received instruction in or otherwise used the Building 20 complex, but Building 20's institutional affiliation means that students' associations with the facilities were inherently limited in duration and occurred early in their professional

careers in the horticulture field. Research did not identify alumni of the CSM horticulture degree and certificate programs who trained at the Building 20 complex and subsequently went on to have influential roles in the wider horticulture and/or floristry fields that constitute significant contributions to local, state, or national history. If any CSM alumnus/a were to be found to have potential significance related to the development of the local horticultural industry, the significance of that individual would not be conveyed by their place of training but rather by the properties where the individual later developed their influence–such as commercial nurseries, greenhouses, gardens, and floristry stores. For these reasons, the Building 20 complex does not represent the lives of individuals important to local, California, or national history.

Criterion 3: No component of the Building 20 complex is significant under CRHR Criterion 3. Building 20, the primary building on the site, was among the original College Heights campus buildings designed by John Carl Warnecke and constructed during the early 1960s. Building 20 expresses some of the basic elements of the New Formalist architectural style that Warnecke utilized throughout the surrounding campus, including regularly spaced concrete columns and distinctively shaped eaves that reference Classical architecture in a modernist idiom. However, the building is a modest interpretation of the design themes Warnecke employed for the campus, which were far more fully expressed at facilities such as the Library and Fine Arts Complex.[3] Building 20 does not reflect the high artistic values of buildings located elsewhere within the CSM campus that have previously been determined eligible for listing in the CRHR under Criterion 3; furthermore, Building 20 is not on par with more formally innovative designs within Warnecke's body of work.

Research conducted for this memorandum did not reveal whether the greenhouse and lath house were designed by Warnecke as components of the original College Heights campus. However, these facilities were constructed subsequent to the completion of the campus in 1963 and lack the inventive and Classically inspired architectural elements that typify Warnecke's use of the New Formalist architectural style. The greenhouse and lath house are utilitarian in design, which relates to their specific functions supporting horticulture instruction, and do not embody the distinctive characteristics of a type, period, region, or method of construction.

The North Garden and South Garden lying adjacent to Building 20 appear to generally meet the NPS's definition of a designed landscape, a resource type that has the potential be found eligible for historic register listing and defined as: "a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition" (Birnbaum 1994). However, review of historic aerial photographs reveals that the demonstration garden, the earliest of the landscape features, was constructed between 1968 and 1980; additional plantings and circulation paths were introduced at subsequent dates. A comparison of Figure 8, Figure 9, and Figure 16 contained in this memorandum illustrates that none of the landscape features surrounding Building 20 are original to the CSM campus or are yet 50 years old. According to the California Code of Regulations (14 CCR § 4852), resources less than 50 years old can be determined eligible for listing in the CRHR if adequate scholarly perspective exists to contextualize the significance of the resource. The North Garden and South Garden express relatively simple design principles consisting of varied forms of vegetation

[3] The evaluation of the campus completed for the 2015 Certified EIR recognizes the design significance of three buildings located in the southern portion of the campus, which comprise a historic district determined significant under Criterion 3.

arranged in planting beds with an unremarkable spatial layout. They do not appear to convey a design tradition or principles that embody a type, period, or region associated with significant landscape design for which scholarly perspective is currently available, and thus do not meet the considerations for CRHR eligibility specified in 14 CCR § 4852.

Criterion 4: The property is not evaluated for eligibility under Criterion 4, which typically is employed for archaeological resources and is outside the scope of this memorandum.

Conclusion

No component of the Building 20 complex—encompassing Building 20, the greenhouse, the lath house, and adjacent landscaped areas—is individually eligible for listing in the CRHR because it does not meet any of the applicable eligibility criteria. As previously evaluated in the 2015 Certified EIR, three buildings on the CSM campus comprise a CRHR-eligible historic district, but Building 20 is not a contributor to this district. Therefore, the Building 20 complex does not meet CEQA's definition of a historical resource.

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Appendix D

Traffic Study for the Demolition of the College of San Mateo Building 20 Complex

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: June 6, 2018

To: Heidi Mekkelson, ICF International

From: Kai-Ling Kuo, Gary Black

Subject: Traffic Study for the Demolition of the College of San Mateo Building 20 Complex

This memorandum provides a traffic review for the College of San Mateo Building 20 Complex demolition project in San Mateo, CA. The project would demolish an existing horticulture building (Building 20), a greenhouse, a lath house, landscaped open space, and three surface parking lots with 29 parking spaces (Edison Lot 7) and construct a surface parking lot with 208 parking spaces (see Figure 1).

The purpose of the project is to (1) provide parking, direct access, and loading space for the new Building 19, Emerging Technologies, (2) better serve current students and staff by expanding parking options on the east side of the campus, (3) improve access for disabled students, and (4) ensure safety of students and faculty by removing unsafe structures. The student enrollment will not change as a result of the project.

If there were an existing parking shortage on campus, construction of a new parking lot could induce additional vehicle trips since students and/or staff who would normally use alternative modes of transportation (e.g., ride sharing or public transit) might be inclined to drive instead. Parking demand observations were conducted for all parking lots (see Figure 2) at the campus during midday, when the highest parking demand is expected for both staff and students, on a weekday in October 2017. The observations (see Table 1) indicate that there is no parking shortage (i.e., insufficient parking spaces to accommodate the typical parking demand) at the college campus because there are still available parking spaces in several parking lots when the parking demand is highest: during midday on a typical weekday. Therefore, the increased parking spaces are not expected to induce demand and result in more staff members or students driving to the campus.

The 2015 Facilities Master Plan Amendment Project EIR evaluated the traffic impacts of the long-term facilities improvements at the College of San Mateo. The proposed improvements related to demolishing and building a new Gymnasium building, modernization and renovation, and potential renewable energy installations would serve the existing campus population, and would not facilitate or result in increases in enrollment or employment, or contribute to campus growth. Therefore, the EIR concluded that build-out of these facilities improvements would not generate new vehicle trips. As discussed above, the currently proposed parking lot would not change student enrollment or employment levels, and would not generate additional vehicle trips by inducing new parking demand. Therefore, there would be no future increase in traffic levels with build-out of the Facilities Master Plan, including the currently proposed parking lot, consistent with the findings in the EIR.

In conclusion, the addition of parking spaces in the proposed parking lot is not expected to generate additional traffic trips on the surrounding public street network under existing or future conditions.

Table 1
Observed Parking Lot Occupancy Rates

Parking Lot	Types	Observed Occupancy Rate[1]
Hillsdale Lot 1	Student	95%
Beethoven Lot 2 (S)	SMAC[2]/Student	30%/60%
Beethoven Lot 2 (N)	Staff/Student	80%/80%
DaVinci Lot 3	Staff	95%
Socrates Lot 4	Staff	95%
Marie Curie Lot 5	Staff/Visitor	60%/20%
Galileo Lot 6 (S)	Student	100%
Galileo Lot 6 (N)	Student	85%
Edison Lot 7[3]	Staff	100%
Forum Lot 8	Visitor	100%
Bulldog Lot 9	Student	100%
Bulldog Lot 9A	Staff	100%
Bulldog Lot 9B	Student	100%
Bulldog Lot 9C	Staff/Student	100%/100%
Bulldog Lot 9D	Student	80%
Sandbox Lot 10	Staff	80%
Stadium Lot 11	Student	70%
Olympian Lot 12	Staff/Visitor	40%/40%

Notes:
1. Parking observations were conducted during midday on 10/24/2017.
2. SMAC = San Mateo Athletic Club
3. The lot is next to Building 20 and would be expanded by the project.

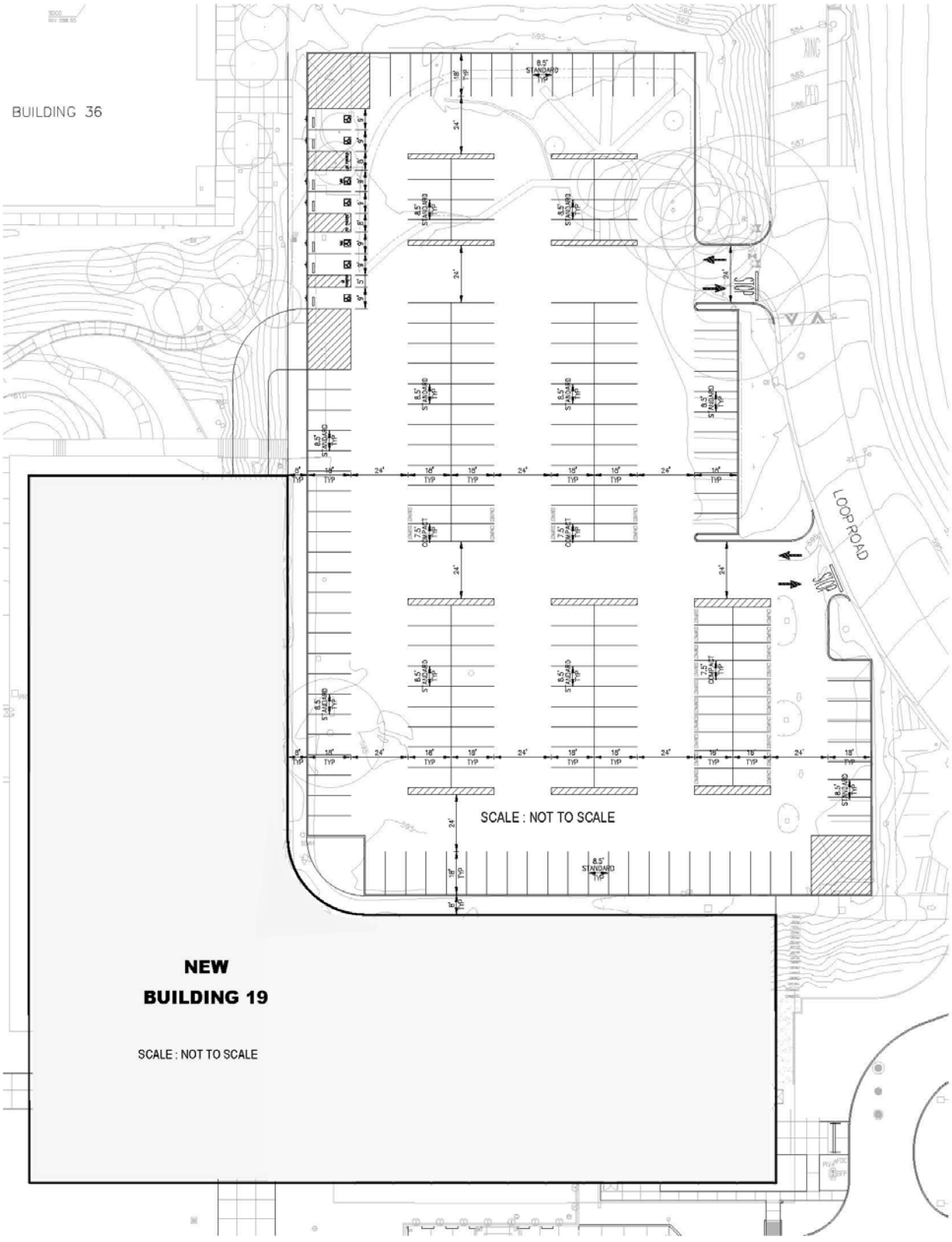

Figure 1
Proposed Parking Lot Plan

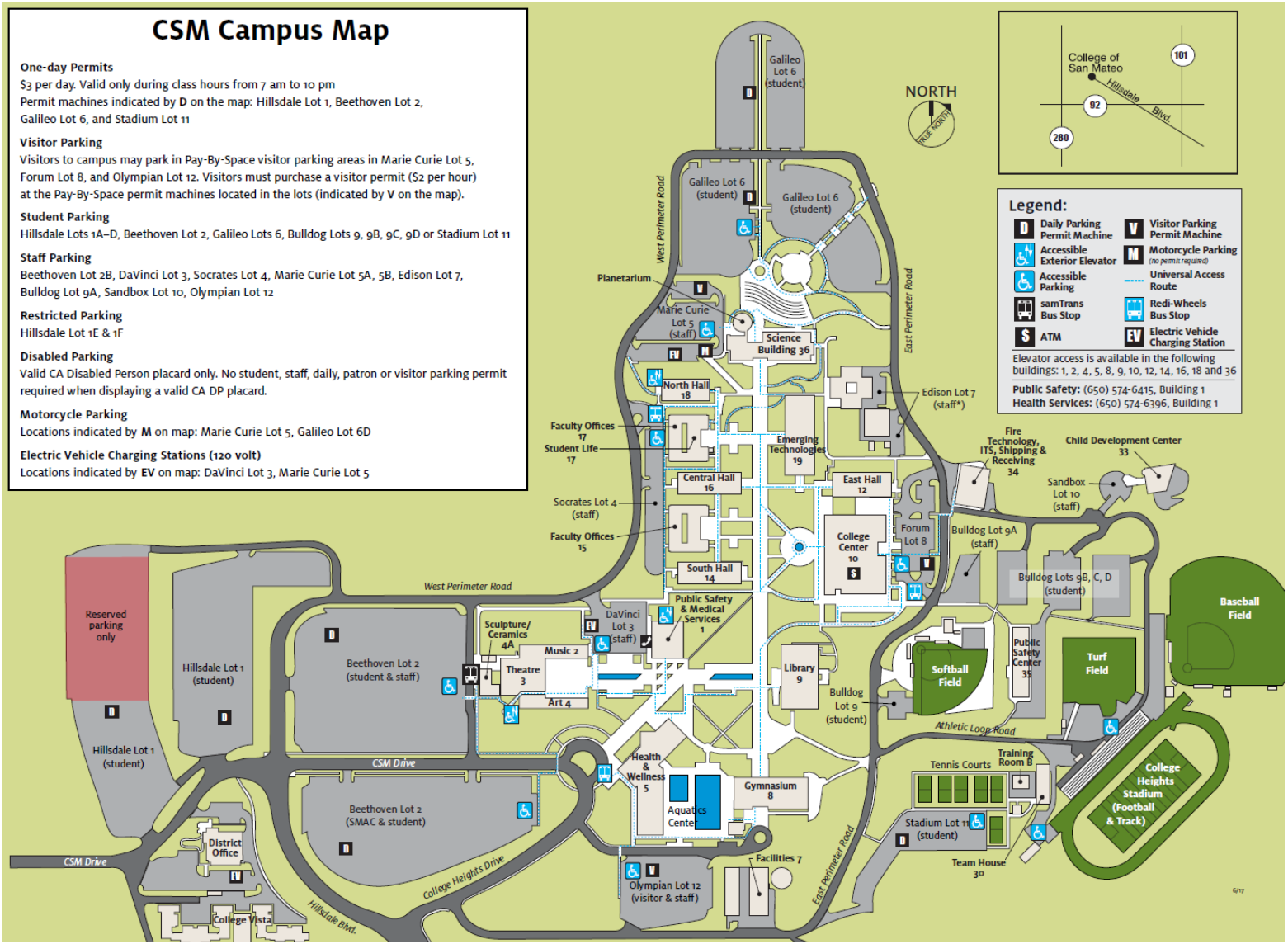

Figure 2
College of San Mateo Campus Map

Appendix E

Biological Resources Documentation

Appendix E-1: USFWS IPaC Inventory of Threatened and Endangered Species: List for Project Change Site

Appendix E-2: CNDDB Species List for San Mateo Quadrangle

Appendix E-3: CNPS Species List for San Mateo Quadrangle

Appendix E-4: Site Photos

Appendix E-1

USFWS IPaC Inventory of Threatened and Endangered Species: List for Project Change Site

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: January 04, 2018
Consultation Code: 08ESMF00-2018-SLI-0803
Event Code: 08ESMF00-2018-E-02387
Project Name: San Mateo Community College Building 20 Demolition

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2018-SLI-0803

Event Code: 08ESMF00-2018-E-02387

Project Name: San Mateo Community College Building 20 Demolition

Project Type: DEVELOPMENT

Project Description: Demolition of building, greenhouse, and horticultural plantings for replacement with parking lot

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.537584716934504N122.33626203506603W

Counties: San Mateo, CA

Endangered Species Act Species

There is a total of 18 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse *Reithrodontomys raviventris* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Western Snowy Plover *Charadrius alexandrinus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
San Francisco Garter Snake *Thamnophis sirtalis tetrataenia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5956	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Bay Checkerspot Butterfly *Euphydryas editha bayensis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2320	Threatened
Mission Blue Butterfly *Icaricia icarioides missionensis* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6928	Endangered
Myrtle's Silverspot Butterfly *Speyeria zerene myrtleae* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6929	Endangered
San Bruno Elfin Butterfly *Callophrys mossii bayensis* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3394	Endangered

Flowering Plants

NAME	STATUS
Fountain Thistle *Cirsium fontinale var. fontinale* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7939	Endangered
Marin Dwarf-flax *Hesperolinon congestum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5363	Threatened
San Mateo Thornmint *Acanthomintha obovata ssp. duttonii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2038	Endangered
San Mateo Woolly Sunflower *Eriophyllum latilobum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7791	Endangered
White-rayed Pentachaeta *Pentachaeta bellidiflora* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7782	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S

JURISDICTION.

Appendix E-2

CNDDB Species List for San Mateo Quadrangle

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (San Mateo (3712253))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Acanthomintha duttonii	San Mateo thorn-mint	Dicots	PDLAM01040	5	2	Endangered	Endangered	G1	S1	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Chaparral, Ultramafic, Valley & foothill grassland
Allium peninsulare var. franciscanum	Franciscan onion	Monocots	PMLIL021R1	21	5	None	None	G5T1	S1	1B.2	null	Cismontane woodland, Ultramafic, Valley & foothill grassland
Amsinckia lunaris	bent-flowered fiddleneck	Dicots	PDBOR01070	64	2	None	None	G2G3	S2S3	1B.2	BLM_S-Sensitive	Cismontane woodland, Coastal bluff scrub, Valley & foothill grassland
Antrozous pallidus	pallid bat	Mammals	AMACC10010	411	2	None	None	G5	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Astragalus pycnostachyus var. pycnostachyus	coastal marsh milk-vetch	Dicots	PDFAB0F7B2	25	1	None	None	G2T2	S2	1B.2	BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden	Coastal dunes, Coastal scrub, Marsh & swamp, Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1955	1	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Bombus caliginosus	obscure bumble bee	Insects	IIHYM24380	181	1	None	None	G4?	S1S2	null	IUCN_VU-Vulnerable	null
Bombus occidentalis	western bumble bee	Insects	IIHYM24250	282	2	None	None	G2G3	S1	null	USFS_S-Sensitive, XERCES_IM-Imperiled	null
Calicina minor	Edgewood blind harvestman	Arachnids	ILARA13020	2	1	None	None	G1	S1	null	null	Ultramafic, Valley & foothill grassland
Charadrius alexandrinus nivosus	western snowy plover	Birds	ABNNB03031	134	1	Threatened	None	G3T3	S2S3	null	CDFW_SSC-Species of Special Concern, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Great Basin standing waters, Sand shore, Wetland
Chloropyron maritimum ssp. palustre	Point Reyes salty bird's-beak	Dicots	PDSCR0J0C3	68	1	None	None	G4?T2	S2	1B.2	BLM_S-Sensitive	Marsh & swamp, Salt marsh, Wetland
		Dicots	PDAST2E161	5	1	Endangered	Endangered	G2T1	S1	1B.1		

Cirsium fontinale var. fontinale	Crystal Springs fountain thistle										SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Meadow & seep, Ultramafic, Valley & foothill grassland, Wetland
Collinsia multicolor	San Francisco collinsia	Dicots	PDSCR0H0B0	36	6	None	None	G2	S2	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Closed-cone coniferous forest, Coastal scrub, Ultramafic
Dipodomys venustus venustus	Santa Cruz kangaroo rat	Mammals	AMAFD03042	14	1	None	None	G4T1	S1	null	null	Chaparral
Dirca occidentalis	western leatherwood	Dicots	PDTHY03010	71	4	None	None	G2	S2	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Broadleaved upland forest, Chaparral, Cismontane woodland, Closed-cone coniferous forest, North coast coniferous forest, Riparian forest, Riparian woodland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1291	5	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Eriophyllum latilobum	San Mateo woolly sunflower	Dicots	PDAST3N060	5	1	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Ultramafic
Euphydryas editha bayensis	Bay checkerspot butterfly	Insects	IILEPK4055	24	2	Threatened	None	G5T1	S1	null	XERCES_CI-Critically Imperiled	Coastal dunes, Ultramafic, Valley & foothill grassland
Falco peregrinus anatum	American peregrine falcon	Birds	ABNKD06071	55	1	Delisted	Delisted	G4T4	S3S4	null	CDF_S-Sensitive, CDFW_FP-Fully Protected, USFWS_BCC-Birds of Conservation Concern	null
Fritillaria biflora var. ineziana	Hillsborough chocolate lily	Monocots	PMLIL0V031	2	2	None	None	G3G4T1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture	Cismontane woodland, Ultramafic, Valley & foothill grassland
Fritillaria liliacea	fragrant fritillary	Monocots	PMLIL0V0C0	81	3	None	None	G2	S2	1B.2	USFS_S-Sensitive	Cismontane woodland, Coastal prairie, Coastal scrub, Ultramafic, Valley & foothill grassland
Hesperevax sparsiflora var. brevifolia	short-leaved evax	Dicots	PDASTE5011	56	1	None	None	G4T3	S2	1B.2	BLM_S-Sensitive	Coastal bluff scrub, Coastal dunes, Coastal prairie
Hesperolinon congestum	Marin western flax	Dicots	PDLIN01060	26	6	Threatened	Threatened	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, Ultramafic,

												Valley & foothill grassland
Hydrochara ricksecker	Ricksecker's water scavenger beetle	Insects	IICOL5V010	13	1	None	None	G2?	S2?	null	null	Aquatic, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters
Ischnura gemina	San Francisco forktail damselfly	Insects	IIODO72010	7	1	None	None	G2	S2	null	IUCN_VU-Vulnerable	null
Lasiurus cinereus	hoary bat	Mammals	AMACC05030	236	2	None	None	G5	S4	null	IUCN_LC-Least Concern, WBWG_M-Medium Priority	Broadleaved upland forest, Cismontane woodland, Lower montane coniferous forest, North coast coniferous forest
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	303	1	None	Threatened	G3G4T1	S1	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_NT-Near Threatened, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Lessingia arachnoidea	Crystal Springs lessingia	Dicots	PDAST5S0C0	11	4	None	None	G2	S2	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Cismontane woodland, Coastal scrub, Ultramafic, Valley & foothill grassland
Malacothamnus arcuatus	arcuate bush-mallow	Dicots	PDMAL0Q0E0	30	3	None	None	G2Q	S2	1B.2	null	Chaparral, Cismontane woodland
Melospiza melodia pusillula	Alameda song sparrow	Birds	ABPBXA301S	38	2	None	None	G5T2?	S2S3	null	CDFW_SSC-Species of Special Concern, USFWS_BCC-Birds of Conservation Concern	Salt marsh
Monolopia gracilens	woodland woollythreads	Dicots	PDAST6G010	57	1	None	None	G3	S3	1B.2	null	Broadleaved upland forest, Chaparral, Cismontane woodland, North coast coniferous forest, Ultramafic, Valley & foothill grassland
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	Mammals	AMAFF08082	22	3	None	None	G5T2T3	S2S3	null	CDFW_SSC-Species of Special Concern	Chaparral, Redwood
Northern Coastal Salt Marsh	Northern Coastal Salt Marsh	Marsh	CTT52110CA	53	2	None	None	G3	S3.2	null	null	Marsh & swamp, Wetland
Pentachaeta bellidiflora	white-rayed pentachaeta	Dicots	PDAST6X030	14	1	Endangered	Endangered	G1	S1	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Ultramafic, Valley & foothill grassland
Phalacrocorax auritus	double-crested cormorant	Birds	ABNFD01020	38	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Rallus obsoletus obsoletus	California Ridgway's rail	Birds	ABNME05016	98	4	Endangered	Endangered	G5T1	S1	null	CDFW_FP-Fully Protected, NABCI_RWL-Red Watch List	Brackish marsh, Marsh & swamp, Salt marsh, Wetland
Rana draytonii	California red-legged frog	Amphibians	AAABH01022	1448	9	Threatened	None	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Riparian

												forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Reithrodontomys raviventris	salt-marsh harvest mouse	Mammals	AMAFF02040	144	1	Endangered	Endangered	G1G2	S1S2	null	CDFW_FP-Fully Protected, IUCN_EN-Endangered	Marsh & swamp, Wetland
Senecio aphanactis	chaparral ragwort	Dicots	PDAST8H060	82	1	None	None	G3	S2	2B.2	null	Chaparral, Cismontane woodland, Coastal scrub
Serpentine Bunchgrass	Serpentine Bunchgrass	Herbaceous	CTT42130CA	22	2	None	None	G2	S2.2	null	null	Valley & foothill grassland
Speyeria zerene myrtleae	Myrtle's silverspot butterfly	Insects	IILEPJ608C	17	1	Endangered	None	G5T1	S1	null	XERCES_CI-Critically Imperiled	Coastal dunes
Spirinchus thaleichthys	longfin smelt	Fish	AFCHB03010	46	1	Candidate	Threatened	G5	S1	null	CDFW_SSC-Species of Special Concern	Aquatic, Estuary
Thamnophis sirtalis tetrataenia	San Francisco gartersnake	Reptiles	ARADB3613B	67	2	Endangered	Endangered	G5T2Q	S2	null	CDFW_FP-Fully Protected	Artificial standing waters, Marsh & swamp, Sacramento/San Joaquin standing waters, Wetland
Trifolium hydrophilum	saline clover	Dicots	PDFAB400R5	49	1	None	None	G2	S2	1B.2	null	Marsh & swamp, Valley & foothill grassland, Vernal pool, Wetland
Triphysaria floribunda	San Francisco owl's-clover	Dicots	PDSCR2T010	50	2	None	None	G2?	S2?	1B.2	null	Coastal prairie, Coastal scrub, Ultramafic, Valley & foothill grassland

Appendix E-3

CNPS Species List for San Mateo Quadrangle

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

30 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad 3712253

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Acanthomintha duttonii	San Mateo thorn-mint	Lamiaceae	annual herb	Apr-Jun	1B.1	S1	G1
Allium peninsulare var. franciscanum	Franciscan onion	Alliaceae	perennial bulbiferous herb	(Apr)May-Jun	1B.2	S1	G5T1
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S2S3	G2G3
Arctostaphylos montaraensis	Montara manzanita	Ericaceae	perennial evergreen shrub	Jan-Mar	1B.2	S1	G1
Astragalus pycnostachyus var. pycnostachyus	coastal marsh milk-vetch	Fabaceae	perennial herb	(Apr)Jun-Oct	1B.2	S2	G2T2
Calochortus umbellatus	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	4.2	S4	G3?
Castilleja ambigua var. ambigua	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	4.2	S4	G4T5
Chloropyron maritimum ssp. palustre	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	1B.2	S2	G4?T2
Chorizanthe cuspidata var. cuspidata	San Francisco Bay spineflower	Polygonaceae	annual herb	Apr-Jul (Aug)	1B.2	S1	G2T1
Cirsium fontinale var. fontinale	Crystal Springs fountain thistle	Asteraceae	perennial herb	(Apr)May-Oct	1B.1	S1	G2T1
Collinsia multicolor	San Francisco collinsia	Plantaginaceae	annual herb	(Feb)Mar-May	1B.2	S2	G2
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar (Apr)	1B.2	S2	G2
Elymus californicus	California bottle-brush grass	Poaceae	perennial herb	May-Aug (Nov)	4.3	S4	G4
Eriophyllum latilobum	San Mateo woolly sunflower	Asteraceae	perennial herb	May-Jun	1B.1	S1	G1
Erysimum franciscanum	San Francisco wallflower	Brassicaceae	perennial herb	Mar-Jun	4.2	S3	G3

Fritillaria biflora var. ineziana	Hillsborough chocolate lily	Liliaceae	perennial bulbiferous herb	Mar-Apr	1B.1	S1	G3G4T1
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2	G2
Hesperevax sparsiflora var. brevifolia	short-leaved evax	Asteraceae	annual herb	Mar-Jun	1B.2	S2	G4T3
Hesperolinon congestum	Marin western flax	Linaceae	annual herb	Apr-Jul	1B.1	S1	G1
Lessingia arachnoidea	Crystal Springs lessingia	Asteraceae	annual herb	Jul-Oct	1B.2	S2	G2
Lilium maritimum	coast lily	Liliaceae	perennial bulbiferous herb	May-Aug	1B.1	S2	G2
Lupinus arboreus var. eximius	San Mateo tree lupine	Fabaceae	perennial evergreen shrub	Apr-Jul	3.2	S2	G2Q
Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	Apr-Sep	1B.2	S2	G2Q
Malacothamnus davidsonii	Davidson's bush-mallow	Malvaceae	perennial deciduous shrub	Jun-Jan	1B.2	S2	G2
Monolopia gracilens	woodland woolythreads	Asteraceae	annual herb	(Feb)Mar-Jul	1B.2	S3	G3
Pentachaeta bellidiflora	white-rayed pentachaeta	Asteraceae	annual herb	Mar-May	1B.1	S1	G1
Polemonium carneum	Oregon polemonium	Polemoniaceae	perennial herb	Apr-Sep	2B.2	S2	G3G4
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	4.2	S3	G4
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
Triphysaria floribunda	San Francisco owl's-clover	Orobanchaceae	annual herb	Apr-Jun	1B.2	S2?	G2?

Suggested Citation

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 04 January 2018].

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Appendix E-4

Site Photos

Northwest boundary of Project Change Site and North Garden (looking northeast)

Building 20 and North Garden (looking southeast)

Building 20 and North Garden (looking north)

Greenhouse and northeast boundary (roadway) of Project Change Site (looking south)

Lath House and Greenhouse with dawn redwood and Building 19 in background (looking southwest)

Greenhouse and Lath House (looking northeast)

South Garden with Lath House and Building 12 in background (looking east)

South Garden and Greenhouse with Buildings 20 and 36 in background (looking northwest)

Greenhouse and South Garden with Building 12 in background (looking southeast)

Walkway west of Building 20 with South Garden, dawn redwood, and Building 12 in background (looking southeast)

Dawn redwood in South Garden with Building 19 in background (looking south)

Dawn redwood in South Garden with Building 12 in background (looking southeast)

Representative photo of horticultural diversity in North Garden (looking northeast)

Representative photo of horticultural diversity in South Garden with Greenhouse, Lath House, and Building 12 in background (looking northeast)