NOTICE OF EXEMPTION

TO: Office of Planning and Research
P.O. Box 3644, Room 212
Sacramento, CA 95812-3044

FROM: The Board of Trustees of The California State University
401 Golden Shore
Long Beach, California 90802-4210

Project Title: Cal Poly Pomona – Classroom/Laboratory/Administration Tower Demolition and Building Renovation Project

Project Location-Specific:

Address: Classroom/Laboratory/Administration (CLA) Building (Building #98), located on the California State Polytechnic University, Pomona (Cal Poly Pomona) campus, 3801 West Temple Avenue, Pomona, California 91768

Cross Streets: Located west of Red Gum Lane and Voorhis Park, north of the Student Services Building (Building #121), northeast of the Art Department and Engineering Building (Building #13), east of College of Engineering (Buildings #9 and #17), south of the Rose Garden, and adjacent to Olive Lane Walk.

Latitude/Longitude: 34°03' 34.85" N, 117°49' 12.17" W

Project Location-City: Pomona **Project Location-County:** Los Angeles

Description of Nature, Purpose, and Beneficiaries of Project:

The project would involve the demolition of the southwestern portion of the CLA building complex (Buildings 1, 2 and the CLA tower), renovation of the remaining building in the complex (Building 3), reconstructed utility connections, and landscaping and hardscape improvements. Constructed in 1993, the CLA building complex is identified as Building #98, Classroom/Lab/Administration Building, on the campus master plan map; the administrative offices have been relocated to Building #121 to the south.

The project would begin with the demolition of the southwestern portion of the building complex, which includes the CLA tower, through dismantling/deconstruction. The demolition footprint would be graded and a new lower-level exterior wall, stairs, ramps, guardrails, and walkway access for Building 3 would be constructed. The project would involve the reconfiguration of the Maximizing Engineering Potential (MEP) Center within Building 3 and reconstructed utility connections. Building 3 would continue to house classrooms upon project completion.

The project would conclude with the creation of a paved ADA-accessible path and other hardscape, and the construction of a Japanese Garden Extension/addition of a Discovery Garden, which would expand the existing Japanese Garden that currently borders the CLA Building to the north and west to occupy the original footprints of Buildings 1 and 2. The majority of the existing Japanese Garden would remain as is, but the eastern perimeter would be modified to accommodate the new Discovery Garden. Vehicular access to the project site would be via Red Gum Lane and Voorhis Circle. No new parking spaces would be constructed; the parking spaces adjacent to Building 3 would be retained.

Construction of the project would take place from June 2022 to March 2023. Project completion and operation is anticipated in 2023.

Name of Public Agency Approving Project: The Board of Trustees of The California State University

Name of Person or Agency Carrying Out Project: California State Polytechnic University, Pomona (Cal Poly Pomona)

The project is exempt from CEQA under the following authority:

_X_ Categorical Exemption. CEQA Guidelines §15302, State class number: Class 2

Reasons why project is exempt:

The project is categorically exempt under Class 2 (Replacement or Reconstruction), as the project would demolish existing buildings (Buildings 1, 2, and the CLA tower) that do not meet current seismic safety standards, reconstruct a portion of a building (Building 3) in the same complex to improve its seismic performance, and reconstruct and upgrade utilities serving Building 3. Building 3 would continue to serve the same purpose as at present and the project would not increase building capacity by more than 50 percent. Therefore, the project is consistent with Categorical Exemption Class 2 qualifying criteria.

The Project does not meet any of the exceptions to the use of a categorical exemption under CEQA Guidelines §15300.2. Specifically, the Project would not: (1) be located in a sensitive environment; (2) have a significant cumulative impact; (3) have a significant effect on the environment due to unusual circumstances; (4) result in damage to scenic resources; (5) be located on a site included on any list compiled pursuant to state law; or (6) cause a substantial adverse change in the significance of a historical resource.

Lead Agency
Contact Person: Danny Wu **Area Code/Telephone:** (909) 869-5044

Signature: Danny Wu **Date:** 4/08/2022

Title: Director Facilities Planning

☒ Signed by Lead Agency

Cal Poly Pomona Classroom/Laboratory/Administration Tower Demolition and Building Renovation Project Supporting Documentation for Notice of Exemption

1. Project Location and Setting

The project site is located on the 1,438-acre Cal Poly Pomona campus at 3801 West Temple Avenue. The campus lies within three separate governmental jurisdictional boundaries: the City of Pomona, the City of Walnut, and unincorporated Los Angeles County. Other nearby cities include Glendora, San Dimas, La Verne, Claremont, Diamond Bar, Industry, Covina, and West Covina. The campus is divided into two portions: Campus North, which includes the main campus, and Campus South, which includes agricultural properties and the Lanterman Development Center. The project site is approximately one acre and encompasses the existing Classroom, Laboratory, and Administration (CLA) Building complex (Building #98 on the campus master plan map), centrally located within Campus North (Figure 1, Project Location). The CLA Building is located north of the Art Department and Engineering Annex (Building #13) and the Student Services Building (Building #121); east of the Engineering Laboratories (Building #17); south of the College of Business Administration (Building #163) and Rose Garden; and west of Voorhis Park.

Campus North is bound by I-10 to the north and Valley Boulevard to the east and is surrounded by residential and open space to the north and west; residential, commercial, institutional, and industrial land uses to the east; and the Spadra Landfill and residential neighborhoods to the south. The campus is accessible from the Interstate (I)-10 and California State Route (SR)-57 and vehicular access is provided via Kellogg Drive or West Temple Avenue.

2. Project Characteristics

2.1 Proposed Project

The proposed project would involve the demolition of the southwestern portion of the CLA building complex (Buildings 1, 2 and the CLA tower), renovation of the remaining building in the complex (Building 3), reconstructed utility connections, and landscaping and hardscape improvements (see Figure 2A and Figure 2B).

The project would begin with the demolition of the southwestern portion of the building complex, which includes the CLA tower, through dismantling/deconstruction. The demolition footprint would be graded and a new lower-level exterior wall, stairs, ramps, guardrails, and walkway on Building 3 would be constructed. The project would involve the reconfiguration of the Maximizing Engineering Potential (MEP) Center within Building 3 and reconstructed utility connections.

The project would conclude with the creation of a paved ADA-accessible path and other hardscape, and the construction of a Japanese Garden Extension/addition of a Discovery Garden, which would expand the existing Japanese Garden that currently borders the CLA Building to the north and west to occupy the original footprints of Buildings 1 and 2. The majority of the Japanese Garden would remain as is, but the eastern perimeter would be modified to accommodate the new Discovery Garden.

Building 3 of the CLA building complex currently operates as classrooms. Buildings 1 and 2 used to provide student services facilities; however, this portion of the CLA building complex is no longer in operation and those services have been relocated to the new Student Services Building #121 to the south (Cal Poly Pomona 2019). Building 3 would continue to house classrooms, as at present, upon project completion.

The Discovery Garden is proposed to include the following program elements:

- decomposed granite study nooks with seating
- amphitheater with tiered seating
- screen/projection wall
- café/pavilion
- plazas with seating and umbrellas
- movable platform seating
- chalkboard wall
- maker space with farm-style table and hoist beam arms

Landscaped areas would connect the program elements described above. The Japanese Garden, including existing trees and the pond, would remain as is. New landscaping including shade trees and lawns would be planted in the Discovery Garden area.

Vehicular access to the project site would continue to be via Red Gum Lane and Voorhis Circle. No new parking spaces would be constructed and the parking spaces adjacent to Building 3 would be retained.

2.2 Proposed Operation

Once operational, the renovated Building 3 would continue to house classrooms. The Discovery Garden area would provide recreational space for students. The proposed project would not increase the number of classrooms and would not result in enrollment growth or require or generate additional faculty.

2.3 Project Construction and Schedule

Construction of the proposed project would include demolition, site preparation, grading, reconstructed utility connections (trenching), landscaping, paving, and architectural coatings. Construction is anticipated to begin June 2022 and ending in March 2023, for an approximated construction duration of approximately 9 months. Construction equipment would be staged within the construction work zone. Construction parking would be provided in the adjacent dirt field. Construction phasing is anticipated as follows:

- Demolition (120 days)
- Site preparation (90 days)

- Grading (4 days)
- Trenching and utilities (10 days)
- Site Renovation (90 days)
- Landscaping (30 days)
- Paving (10 days)

Demolition would involve the removal of Buildings 1, 2, the CLA tower, and existing concrete located throughout the site. Additional site clearing and rough grading would occur during the site preparation phase. Grading would require 3,500 cubic yards of fill which would require importing to the site. The maximum depth of disturbance would be approximately 15 feet. The subsequent construction phase would involve the trenching of soil for the placement of underground utilities and landscaping. The paving phase would involve paving of asphalt and concrete surfaces. The architectural coating phase would involve the application of interior and exterior paints and coatings. A summary of the anticipated construction equipment, quantity of equipment, hours of operation of the equipment, and worker, vendor, and haul trips per phase is included in Table 1.

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Demolition	14	0	411	Concrete/ Industrial Saws	1	8
				Rubber Tired Dozers	1	8
				Tractors/ Loaders/ Backhoes	3	8
Site Preparation	6	2	0	Graders	1	8
				Tractors/ Loaders/ Backhoes	1	8
Grading	8	2	438	Graders	1	8
				Tractors/ Loaders/ Backhoes	2	8
Trenching/ Utilities	8	2	0	Plate Compactors	1	8
				Tractors/ Loaders/ Backhoes	1	8
				Trenchers	1	8
Landscaping	6	0	0	Tractors/ Loaders/ Backhoes	2	8
Site Renovation	4	0	0	Tractors/ Loaders/ Backhoes	1	6
Paving	6	0	0	Pumps	1	8
				Cement and Mortar Mixer	1	6

Notes: See Appendix A for details.

3. CEQA Compliance

As described below, Cal Poly Pomona has determined that the project is exempt from the provisions of the California Environmental Quality Act (CEQA) under Categorical Exemption Class 2 (Replacement or Reconstruction) (CEQA Guidelines §15302). The project does not trigger any of the exceptions for using this categorical exemption, as discussed below.

3.1 Replacement or Reconstruction (Class 2 Categorical Exemption)

The project is exempt from CEQA under Article 19, Categorical Exemptions. More specifically, the project is exempt from CEQA under the following section:

> Replacement or Reconstruction (Class 2): Class 2 consists of replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced, including but not limited to: (a) Replacement or reconstruction of existing schools and hospitals to provide earthquake resistant structures which do not increase capacity more than 50 percent (CEQA Guidelines Section 15302).

The project is categorically exempt under Class 2 because the project would demolish existing buildings (Buildings 1, 2 and the CLA tower); that do not meet current seismic safety standards, reconstruct a portion of a building (Building 3) in the same complex to improve its seismic performance, and reconstruct and upgrade utilities serving Building 3. Building 3 would continue to serve the same purpose as at present and the project would not increase building capacity by more than 50 percent. Therefore, the project is consistent with Categorical Exemption Class 2 qualifying criteria.

3.2 Categorical Exemption Exceptions

The Project would not meet any of the exceptions for using categorical exemptions listed in CEQA Guidelines §15300.2, which prohibits the use of categorical exemptions if a project would:

- Be located in a sensitive environment;
- Have significant cumulative impacts;
- Have a significant effect on the environment due to unusual circumstances;
- Result in damage to scenic resources within an officially designated scenic highway;
- Be located on a site included on a list compiled pursuant to §65962.5 of the Government Code; or
- Cause a substantial adverse change in the significance of a historical resource.

Additional discussion about each of these exceptions is provided below. For technical analyses related to air quality and greenhouse gas emissions, and noise, please refer to Appendix A and B respectively.

"Sensitive Environment" Exception (CEQA Guidelines §15300.2(a))

Under CEQA Guidelines §15300.2(a), a categorical exemption shall not be used when the project would be located on a site with a sensitive environmental resource of hazardous or critical concern. The project site is located within an urbanized environment, on the established Cal Poly Pomona campus. The project site is predominately surrounded by academic buildings, walkways, and landscaped areas. The project site is located at the existing CLA Building complex.

Cal Poly Pomona is located in an urbanized environment and predominantly consists of developed land or land dedicated to agricultural education activities. However, portions of the campus remain undeveloped such as the

76-acre Voorhis Ecological Reserve, which is the main portion of campus that supports native habitats and associated species. This area of campus would not be directly impacted as a result of the project.

The project would occur within the existing developed core area of campus. The project would not involve the removal or disturbance of the Japanese Garden, adjacent to the CLA Building complex. Ornamental trees and landscaped areas adjacent to the CLA Building complex will be removed. If vegetation removal must occur during the bird breeding season (January 15 to August 31), surveys will be necessary to ensure avoidance of impacts to nesting native bird species, pursuant to the Migratory Bird Treaty Act. A qualified avian biologist will conduct a nesting bird survey in the proposed impact area within 72 hours prior to initiation of construction activities. A survey report by the qualified biologist verifying that no active nests are present, or that the young have fledged, shall be submitted to Cal Poly Pomona for review and approval prior to initiation of ground-disturbing activities. If nesting birds are detected in habitat that is to be impacted by construction activities, the nest location(s) shall be protected with appropriate buffers until nestlings have fledged and are independent of the nest. With compliance with the Migratory Bird Treaty Act of 1918, impacts would be less than significant.

Project construction activities would be limited to vegetation clearing and ground disturbance associated with the demolition of portions of the CLA Building complex and site improvements. The project site does not include sensitive habitat and is not otherwise considered a sensitive environment. Therefore, this exception does not apply to the project.

"Cumulative Impacts" Exception (CEQA Guidelines §15300.2(b))

Under CEQA Guidelines §15300.2(b), a categorical exemption shall not be used when the cumulative impact of successive projects of the same type in the same place, over time is significant. Successive projects of the same type in the same place have not been approved or proposed. Therefore, this exception does not apply to the Project.

"Unusual Circumstances" Exception (CEQA Guidelines §15300.2(c))

Under CEQA Guidelines §5300.2(c), a categorical exemption shall not be used where there is a reasonable possibility that the activity will have a significant effect on the environment due to "unusual circumstances." The project site possesses no unusual environmental characteristics and is already developed with the existing CLA Building footprint, and therefore the project would not result in any substantial change in the use of the site. There are no unusual circumstances surrounding the project that would suggest a reasonable possibility of a significant effect on the environment due to such circumstances, and this exception does not apply to the project.

"Scenic Highways" Exception (CEQA Guidelines §15300.2(d))

Under CEQA Guidelines §15300.2(d), a categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. The project site is not located within or near a highway officially designated as a state scenic highway. The nearest eligible state scenic highway is the segment of Route 57 that terminates in Diamond Bar, located approximately four miles south of the project site (Caltrans 2018). The project site is not visible from the highway due to the distance and intervening urban development. Therefore, the project would not result in damage to scenic resources within a state scenic highway and this exception does not apply to the project.

"Hazardous Waste Sites" Exception (CEQA Guidelines §15300.2(e))

Under CEQA Guidelines §15300.2(e), a categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to §65962.5 of the Government Code. The project site and the limits of construction disturbance are not included on a list of hazardous waste sites compiled pursuant to Government Code §65962.5 (i.e., the Cortese List).

The following Cortese List online data resources were reviewed during the preparation of this document: (1) the list of hazardous waste and substances sites from the Department of Toxic Substances Control's (DTSC's) EnviroStor database (DTSC 2022a); (2) the list of leaking underground storage tank sites from the State Water Resources Control Board's (SWRCB's) GeoTracker database (SWRCB 2022a); (3) the list of solid waste disposal sites identified by CalEPA (CalEPA 2022a); (4) the list of active Cease and Desist Orders and Cleanup and Abatement Orders from the SWRCB (SWRCB 2022b); (5) the list of hazardous waste facilities subject to corrective action pursuant to §25187.5 of the Health and Safety Code identified by the DTSC (DTSC 2022b); and (6) the database of environmentally regulated sites and facilities combined in the CalEPA Regulated Site Portal (CalEPA 2022b).

There is one reported former leaking fuel tank cases on the Cal Poly Pomona Campus North as follows:

- Former underground diesel fuel tank, located near International Polytechnic High and not within the limits of Project construction disturbance. The case was closed as of November 12, 1996.

As noted in the SWRCB GeoTracker database, this former leaking tank case is officially closed (SWRCB 2022a). There are no site management requirements. Cases are considered closed when the appropriate regulatory agency has determined that no further action is required for further land use because actions were taken to adequately remediate the release, or because the release was minor, presents no environmental risk, and no remedial action is necessary. Though closed, they remain on the Cortese List for informational purposes. Based on the above, the project site is not included on any list compiled pursuant to Government Code §65962.5 and this exception does not apply to the project.

"Historical Resources" Exception (CEQA Guidelines §15300.2(f))

Under CEQA Guidelines §15300.2(f), a categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource. The project site is located on a developed portion of the existing Cal Poly Pomona campus, within an urbanized area. The project would not involve the demolition of any structures or other campus facilities that could potentially be considered historical resources; the CLA building complex was constructed in 1993. The project site has been substantially disturbed by previous grading activities associated with the existing CLA Building complex. Ground disturbing activities associated with project construction would be limited to demolition of Buildings 1, 2, and the CLA Tower; grading of the demolition footprint; trenching for the placement of reconstructed utilities; and landscaping. The maximum depth of disturbance would be approximately 15 feet. Original construction of the Buildings 1, 2, and the CLA Tower extended well below a depth of 15 feet. Therefore, ground disturbance associated with project construction would not extend into native soils that have not been previously disturbed. Therefore, it is unlikely that any historical resources would be found or disturbed during project construction. As a result, the project would not cause a substantial adverse change in the significance of a historical resource and this exception does not apply to the project.

4. Conclusion

Given all of the foregoing analyses and findings, the project would not have a significant effect on the environment. The project has been reviewed in compliance with CEQA. Pursuant to CEQA Guidelines §15302, the Project is categorically exempt from CEQA under Class 2 (Replacement or Reconstruction).

5. References

Cal Poly Pomona. 2019. PolyCentric: University News Center. "After Serving as Campus Centerpiece, CLA Tower is Closed." January 30, 2019. https://polycentric.cpp.edu/2019/01/after-serving-as-campus-centerpiece-cla-tower-is-closed/

Cal Poly Pomona. 2021. About Cal Poly Pomona. Accessed October 2021. https://www.cpp.edu/aboutcpp/index.shtml.

CalEPA. 2022a. "Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit." Accessed January 2022. http://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CurrentList.pdf

CalEPA. 2022b. "CalEPA Regulated Site Portal." Accessed January 2022. https://siteportal.calepa.ca.gov/nsite/map/results/detail/232229

Caltrans (California Department of Transportation). 2018." California State Scenic Highway System Map." Accessed January 2022. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

County of Los Angeles. 2021. Los Angeles County Department of Regional Planning GIS-NET. Accessed October 2021. https://rpgis.isd.lacounty.gov/Html5Viewer/index.html?viewer=GISNET_Public.GIS-NET_Public.

DTSC (Department of Toxic Substance Control). 2022a. "EnviroStor Database." Accessed January 2022. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=3801+West+Temple+Avenue

DTSC. 2022b. "List of Hazardous Waste Facilities Subject to Corrective Action." Accessed January 2022. https://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES,OPEN,FUDS,CLOSE&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST

SWRCB (State Water Resources Control Board). 2022a. "GeoTracker Database." Accessed January 2022. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=3801+West+Temple+Avenue#

SWRCB. 2022b. "List of Active Cease and Desist Orders and Cleanup and Abatement Orders." Accessed January 2022. http://calepa.ca.gov/sitecleanup/corteselist/

Figures

SOURCE: USGS National Map 2022; San Dimas Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Cal Poly Pomona Classroom/Laboratory/Administration Tower Demolition and Building Renovation Notice of Exemption

Japanese Garden Extension

FIGURE 2A

Site Plan Option 1

Discovery Garden

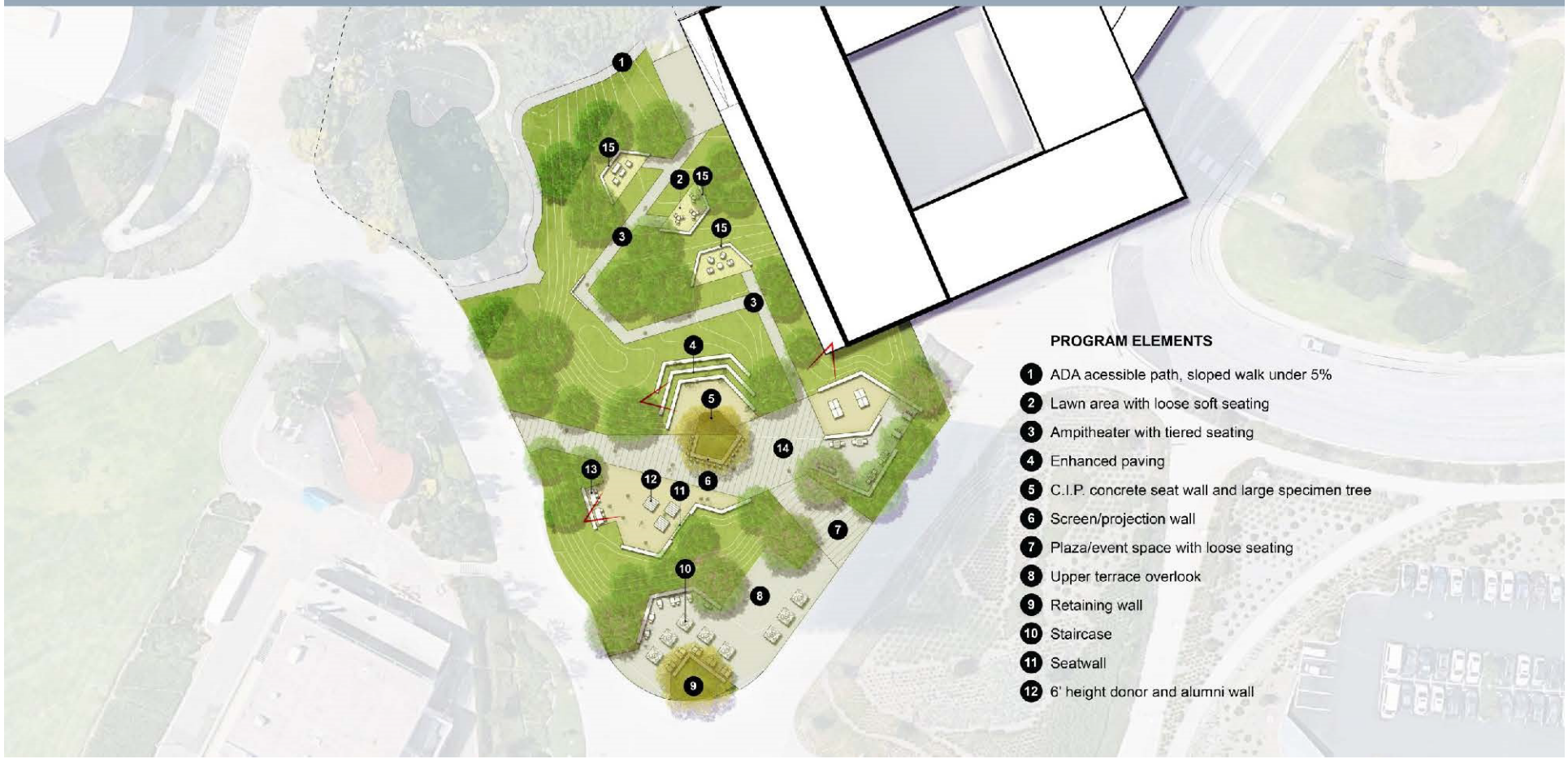


FIGURE 2B

Site Plan Option 2

DUDEK

Appendix A

Air Quality and Greenhouse Gas Emissions Technical Memorandum

DUDEK
1102 R STREET
SACRAMENTO, CALIFORNIA 95811
T 916.443.8335 F 916.443.5113

MEMORANDUM

To:	The Board of Trustees of The California State University
From:	Matthew Morales, Senior Air Quality Specialist, Dudek
Subject:	Cal Poly Pomona – Classroom, Laboratory, Administration Tower Demolition and Building Renovation Project - Air Quality and Greenhouse Gas Emissions Technical Memorandum
Date:	March 4, 2022
cc:	Caitlin Munson, Project Manager, Dudek
Attachment(s):	Attachment A – CalEEMod Emissions Outputs

This memorandum estimates criteria air pollutant and greenhouse gas (GHG) emissions impacts from the Classroom, Laboratory, Administration (CLA) Tower Demolition and Building Renovation Project (project) in accordance with the California Environmental Quality Act (CEQA) Guidelines.

The contents and organization of this memorandum are as follows: Project Description: General Analysis and Methodology; Thresholds of Significance and Impact Analyses for the Air Quality Assessment and GHG Emissions Assessment; Conclusions; and References Cited.

1 Project Description

The project site is located on the 1,438-acre Cal Poly Pomona campus at 3801 West Temple Avenue. The campus lies within three separate governmental jurisdictional boundaries: the City of Pomona, the City of Walnut, and unincorporated Los Angeles County. Other nearby cities include Glendora, San Dimas, La Verne, Claremont, Diamond Bar, Industry, Covina, and West Covina. The campus is divided into two portions: Campus North, which includes the main campus, and Campus South, which includes agricultural properties and the Lanterman Development Center. The project site is approximately one acre and encompasses the existing Classroom, Laboratory, and Administration (CLA) Building complex (Building #98 on the campus master plan map), centrally located within Campus North. The CLA Building is located north of the Art Department and Engineering Annex (Building #13) and the Student Services Building (Building #121); east of the Engineering Laboratories (Building #17); south of the College of Business Administration (Building #163) and Rose Garden; and west of Voorhis Park.

The project would begin with the demolition of the southwestern portion of the building complex, which includes the CLA tower, through dismantling/deconstruction. The demolition footprint would be graded and a new lower-level exterior wall, stairs, ramps, guardrails, and walkway on Building 3 would be constructed. The project would involve the reconfiguration of the Maximizing Engineering Potential (MEP) Center within Building 3 and reconstructed utility connections. The project would conclude with the creation of a paved ADA-accessible path and other hardscape, and the construction of a Japanese Garden Extension/addition of a Discovery Garden, which

would expand the existing Japanese Garden that currently borders the CLA Building to the north and west to occupy the original footprints of Buildings 1 and 2. The majority of the Japanese Garden would remain as is, but the eastern perimeter would be modified to accommodate the new Discovery Garden.

Building 3 of the CLA building complex currently operates as classrooms. Buildings 1 and 2 used to provide student services facilities; however, this portion of the CLA building complex is no longer in operation and those services have been relocated to the new Student Services Building #121 to the south (Cal Poly Pomona 2019). Building 3 would continue to house classrooms, as at present, upon project completion.

The Discovery Garden is proposed to include the following program elements:

- decomposed granite study nooks with seating
- amphitheater with tiered seating
- screen/projection wall
- café/pavilion
- plazas with seating and umbrellas
- movable platform seating
- chalkboard wall
- maker space with farm-style table and hoist beam arms

Landscaped areas would connect the program elements described above. The Japanese Garden, including existing trees and the pond, would remain as is. New landscaping including shade trees and lawns would be planted in the Discovery Garden area.

Vehicular access to the project site would continue to be via Red Gum Lane and Voorhis Circle. No new parking spaces would be constructed and the parking spaces adjacent to Building 3 would be retained.

Once operational, the renovated Building 3 would continue to house classrooms. The Discovery Garden area would provide recreational space for students. The proposed project would not increase the number of classrooms and would not result in enrollment growth or require or generate additional faculty.

2 General Analysis and Methodology

The project site is located within the South Coast Air Basin (SCAB) and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD). The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate emissions from construction and operation of the project (CAPCOA 2021). CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and GHG emissions associated with construction activities and operation of a variety of land

use projects, such as educational, residential, commercial, and industrial facilities. CalEEMod input parameters, including the land use type used to represent the project and its size, construction schedule, and anticipated use of construction equipment, were based on information provided by the applicant or default model assumptions if project specifics were unavailable. Construction was assumed to commence in June 2022 and last approximately 9 months. The anticipated construction schedule is detailed below:

- Demolition (120 days)
- Site preparation (90 days)
- Grading (4 days)
- Trenching and utilities (10 days)
- Site Renovation (90 days)
- Landscaping (30 days)
- Paving (10 days)

The mix of construction equipment used for estimating the construction emissions of the project is based on applicant-provided information and CalEEMod default values as shown in Table 1.

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Demolition	14	0	411	Concrete/ Industrial Saws	1	8
				Rubber Tired Dozers	1	8
				Tractors/ Loaders/ Backhoes	3	8
Site Preparation	6	2	0	Graders	1	8
				Tractors/ Loaders/ Backhoes	1	8
Grading	8	2	438	Graders	1	8
				Tractors/ Loaders/ Backhoes	2	8
Trenching/ Utilities	8	2	0	Plate Compactors	1	8
				Tractors/ Loaders/ Backhoes	1	8
				Trenchers	1	8
Landscaping	6	0	0	Tractors/ Loaders/ Backhoes	2	8
Site Renovation	4	0	0	Tractors/ Loaders/ Backhoes	1	6
Paving	6	0	0	Pumps	1	8

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
				Cement and Mortar Mixer	1	6

Notes: See Attachment A for details.

Operations would begin in 2023. Since the project would result in recreational space for students and would not increase the number of students or faculty, it would result in a minimal increase in air pollutant emissions during operations associated with landscape equipment and consumer products. These emissions sources were also modeled using CalEEMod.

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include volatile organic compounds (VOCs; also referred to as reactive organic gases [ROGs]), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (coarse particulate matter, or PM_{10}), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (fine particulate matter, or $PM_{2.5}$). VOCs and NO_x are important because they are precursors to ozone (O_3). Criteria air pollutant emissions associated with construction of the project were estimated for the following emission sources: operation of off-road construction equipment, paving, on-road vendor (material delivery) trucks, haul trucks, and worker vehicles.

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. GHGs are gases that absorb infrared radiation in the atmosphere. Principal GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), O_3, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources though uncertain impacts related to future air temperatures and precipitation patterns.

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2e). The CO_2e for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons (MT) of CO_2e = (MT of a GHG) × (GWP of the GHG). CalEEMod assumes that the GWP for CH_4 is 25, which means that emissions of one MT of CH_4 are equivalent to emissions of 25 MT of CO_2, and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's (IPCC's) Fourth Assessment Report (IPCC 2007).

GHG emissions associated with construction of the project were estimated for the following emission sources: off-road construction equipment, on-road vendor trucks, haul trucks, and worker vehicles. For operations, the project would result in a minimal increase in GHG emissions during associated with landscape equipment, water use, and solid waste. These emissions sources were also modeled using CalEEMod. The detailed project construction and operational assumptions are included in Attachment A.

3 Air Quality Assessment

3.1 Thresholds of Significance

The significance criteria used to evaluate the project impacts to air quality are based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this air quality analysis, a significant impact would occur if the project would (14 CCR 15000 et seq.):

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

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the project would have a significant impact on air quality.

SCAQMD has adopted thresholds to address the significance of air quality impacts resulting from a project. A project would result in a substantial contribution to an existing air quality violation of the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS) for O_3, which is a nonattainment pollutant, if the project's construction emissions would exceed SCAQMD's VOC or NO_x significance thresholds shown in Table 2. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (VOC and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods. The SCAB is also nonattainment for the state PM_{10} and federal and state $PM_{2.5}$ standards.

Table 2. SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	**Construction (Pounds per Day)**	**Operation (Pounds per Day)**
VOCs	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150

Table 2. SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	**Construction (Pounds per Day)**	**Operation (Pounds per Day)**
$PM_{2.5}$	55	55
Lead[a]	3	3
TACs and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and acute hazard index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants[c]		
NO_2 1-hour average NO_2 annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)	
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state /federal)	
PM_{10} 24-hour average PM_{10} annual average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation) 1.0 μg/m³	
$PM_{2.5}$ 24-hour average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation)	

Source: SCAQMD 2019.
Notes: SCAQMD = South Coast Air Quality Management District; VOCs = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; TAC = toxic air contaminant; NO_2 = nitrogen dioxide; ppm = parts per million; μg/m³ = micrograms per cubic meter.

[a] The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] TACs include carcinogens and non-carcinogens.
[c] Ambient air quality standards for criteria pollutants are based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
[d] Ambient air quality threshold is based on SCAQMD Rule 403.

In addition to the emission-based thresholds listed in Table 2, SCAQMD also recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of construction activities. Such an evaluation is referred to as a localized significance threshold (LST) analysis. The LST analysis focuses on construction equipment and does not include mobile sources. Therefore, the LST analysis only applies to the construction equipment on site, not the worker vehicles, vendor trucks, or haul trucks. For project sites of 5 acres or less, the SCAQMD LST Methodology (2009) includes lookup tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., the emissions would not cause an exceedance of the applicable concentration limits for NO_2, CO, PM_{10}, and $PM_{2.5}$) without performing project-specific dispersion modeling. The project would disturb approximately 1-acre on a daily basis, so it is appropriate to use the lookup tables for the LST evaluation.

The LST significance thresholds for NO_2 and CO represent the allowable increase in concentrations above background levels in the vicinity of a project that would not cause or contribute to an exceedance of the relevant ambient air quality standards, while the threshold for PM_{10} represents compliance with Rule 403 (Fugitive Dust). The LST significance threshold for $PM_{2.5}$ is intended to ensure that construction emissions do not contribute substantially to existing exceedances of the $PM_{2.5}$ ambient air quality standards. The allowable emission rates depend on the following parameters:

- Source-receptor area (SRA) in which the project is located
- Size of the project site
- Distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals)

The project site is located in SRA 10 (Pomona/Walnut Valley). LST pollutant screening level concentration data is currently published for 1-, 2-, and 5-acre sites for varying distances. The project would disturb approximately 1-acre total and the nearest sensitive-receptor land use (student housing) is located approximately 200 meters to the northwest of the project site. The LST values from the SCAQMD lookup tables for SRA 10 for a 1-acre project site and a receptor distance of 200 meters are shown in Table 3.

Table 3. Localized Significance Thresholds for Source-Receptor Area 10 (Pomona/ Walnut Valley)

Pollutant	Threshold (pounds/day)
Construction	
NO_2	292
CO	4,345
PM_{10}	57
$PM_{2.5}$	18

Source: SCAQMD 2009.
Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter
Localized significance thresholds were determined based on the values for a 1-acre site at a distance of 200 meters from the nearest sensitive receptor.

3.2 Impact Analysis

3.2.1 Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The project site is located within the SCAB, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties and all of Orange County, and is within the jurisdictional boundaries of SCAQMD.

SCAQMD administers SCAB's Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining all CAAQS and NAAQS. The most recent adopted AQMP for the SCAB is the 2016 AQMP (SCAQMD 2017), which was adopted by SCAQMD's Governing Board in March 2017. The 2016 AQMP focuses on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities seeking to promote reductions in GHGs and toxic risk, as well as

efficiencies in energy use, transportation, and goods movement (SCAQMD 2017). Notably, the 2022 update to the AQMP is currently being developed but has yet to be adopted.

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the regional air quality plans, and if it would interfere with the region's ability to comply with federal and state air quality standards. SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook. These criteria are (SCAQMD 1993):

- Whether the Project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- Whether the Project would exceed the assumptions in the AQMP or increments based on the year of Project buildout and phase.

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance and are addressed under Section 3.2.2. Detailed results of this analysis are included in Attachment A, CalEEMod Emissions Outputs. As presented in Section 3.2.2, construction and operation of the project would not generate criteria air pollutant emissions that exceed SCAQMD's thresholds.

The second criterion regarding the project's potential to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not in conflict with or obstructing implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook). SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for its Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016). This document, which is based on general plans for cities and counties in the SCAB, is used by SCAQMD to develop the AQMP emissions inventory (SCAQMD 2017).[1] The SCAG 2016 RTP/SCS and the associated Regional Growth Forecast are generally consistent with the local plans;[2] therefore, the 2016 AQMP is generally consistent with local government plans.

The project is consistent with the existing land use designation and implementation of the project would not generate an increase in growth demographics that would conflict with existing projections within the region. Accordingly, the project is consistent with the SCAG RTP/SCS forecasts used in the SCAQMD AQMP development.

[1] Information necessary to produce the emissions inventory for the SCAB is obtained from SCAQMD and other governmental agencies, including the California Air Resources Board (CARB), California Department of Transportation (Caltrans), and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016 RTP/SCS are integrated in the 2016 AQMP (SCAQMD 2017).

[2] Demographics from the 2016 RTP/SCS are still applicable for the purposes of the air quality analysis, since those are included and used in the current AQMP.

In summary, based on the considerations presented for the two criteria, impacts relating to the project's potential to conflict with or obstruct implementation of the applicable AQMP would be less than significant.

3.2.2 Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Construction Emissions

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e., on-road vendor trucks, haul trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for particulate matter, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated.

The CalEEMod Version 2020.4.0 was used to estimate emissions from construction of the project. Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. The project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas two times per day, with additional watering depending on weather conditions. The CalEEMod default assumptions were used for estimating fugitive dust emissions from grading on site. Table 4 presents the estimated maximum daily construction emissions generated during construction of the project. Details of the emission calculations are provided in Attachment A.

Table 4. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2022	2.50	25.58	20.71	0.04	2.08	1.26
2023	2.19	35.32	21.63	0.10	3.76	1.59
Maximum	*2.50*	*35.32*	*21.63*	*0.10*	*3.76*	*1.59*
SCAQMD Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District.
Emissions include compliance with SCAQMD Rule 403.
See Attachment A for complete results.

As shown in Table 4, the project construction would not exceed SCAQMD's daily thresholds. Therefore, construction impacts associated with criteria air pollutant emissions would be less than significant.

Operational Emissions

Following the completion of construction activities, the project would generate criteria air pollutant emissions from area sources (i.e., the use of landscaping equipment and consumer products). No additional vehicular trips are anticipated for long-term operations. Pollutant emissions associated with long-term operations were quantified using CalEEMod using a combination of project-specific information and CalEEMod default values. Table 5 presents the maximum daily project emissions (year 2023). Details of the emission calculations are provided in Attachment A.

Table 5. Estimated Maximum Daily Operation Criteria Air Pollutant Emissions

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Area	<0.01	0.00	<0.01	0.00	0.00	0.00
Total	**<0.01**	**0.00**	**<0.01**	**0.00**	**0.00**	**0.00**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District; <0.01 = reported value less than 0.01.
See Attachment A for complete results.

As shown in Table 5, the project would not exceed SCAQMD's significance thresholds during operations. Therefore, operational impacts associated with criteria air pollutant emissions would be less than significant.

In considering cumulative impacts from the project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SCAB is designated as nonattainment for the CAAQS and NAAQS. If a project's emissions would exceed SCAQMD's significance thresholds, it would be considered to have a cumulatively considerable contribution to nonattainment status in the SCAB. If a project does not exceed thresholds and is determined to have less than significant project-specific impacts, it may still contribute to a significant

cumulative impact on air quality. The basis for analyzing the project's cumulatively considerable contribution is if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact) and consistency with SCAQMD's 2016 AQMP, which addresses cumulative emissions in the SCAB.

The SCAB has been designated as a federal nonattainment area for O_3 and $PM_{2.5}$ and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SCAB, including motor vehicles, off-road equipment, and commercial and industrial facilities. Construction of the project would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. As indicated in Tables 4 and 5, project-generated construction and operational emissions would be minimal and would not exceed SCAQMD's emission-based significance thresholds for VOC, NO_x, CO, SO_2, PM_{10}, or $PM_{2.5}$.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Construction schedules for potential future projects near the project site are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be speculative.[3] However, future projects would be subject to CEQA and would require an air quality analysis and, where necessary, mitigation if the project would exceed SCAQMD's significance thresholds. Criteria air pollutant emissions associated with construction activity of future proposed projects would be reduced through implementation of control measures required by SCAQMD. Cumulative PM_{10} and $PM_{2.5}$ emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD.

Based on the previous considerations, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and cumulative impacts would be less than significant.

3.3.3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

Localized Significance Thresholds

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). Residential dormitories are located to the northwest of the project, approximately 656 feet (200 meters) from the project site boundary.

Construction activities associated with the project would result in temporary sources of on-site fugitive dust and construction equipment emissions. Off-site emissions from vendor trucks, haul trucks, and worker vehicle trips are not included in the LST analysis. The maximum allowable daily emissions that would satisfy the SCAQMD localized

[3] The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145). This discussion is nonetheless provided in an effort to show good-faith analysis and to comply with CEQA's information disclosure requirements.

significance criteria for SRA 10 are presented in Table 6 and compared to the maximum daily on-site construction emissions.

Table 6. Localized Significance Thresholds Analysis for Project Construction

Pollutant	Project Construction Emissions (Pounds per Day)	LST Criteria (Pounds per Day)	Exceeds LST?
NO_2	24.92	292	No
CO	19.80	4,345	No
PM_{10}	1.74	57	No
$PM_{2.5}$	1.16	18	No

Source: SCAQMD 2009.
Notes: LST = localized significance threshold; NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
See Appendix A for detailed results.
LSTs are shown for 1-acre project sites corresponding to an approximate distance to a sensitive receptor of 200 meters (656 feet) for SRA 10 (Pomona/ Walnut Valley).
These estimates reflect control of fugitive dust required by Rule 403.
The emissions represent worst-case operating scenario during construction.

As shown in Table 6, the project LST would not exceed the established significance thresholds, and thus, would result in a less than significant localized impact to sensitive receptors during construction.

CO Hotspots

If traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and is operating on roadways already crowded with traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. However, since the project is not anticipated to increase vehicular trips during operations, it would not result in additional mobile sources on the roadway network. Therefore, the project would not result in a CO hotspot and would result in a less than significant impact.

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute (immediate) and/or chronic (cumulative) non-cancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the

California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Project construction would result in emissions of diesel particulate from heavy construction equipment and trucks accessing the site. Diesel particulate matter is characterized as a TAC by the State of California. The Office of Environmental Health Hazard Assessment (OEHHA) has identified carcinogenic and chronic noncarcinogenic effects from long-term exposure, but has not identified health effects due to short-term exposure to diesel exhaust. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, the duration of the proposed construction activities would only constitute a small percentage of the total 30-year exposure period. Due to this relatively short period of exposure (9 months), minimal particulate emissions on-site, and the substantial distance to the nearest on-site residences, TACs generated by the project during construction would not result in concentrations causing significant health risks. Additionally, the project would not emit TACs during long-term operations. Overall, the project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the project, and impacts would be less than significant.

Health Impacts of Criteria Air Pollutants

Construction of the project would generate criteria air pollutant emissions; however, the project would not exceed the SCAQMD mass-emission thresholds.

The SCAB is designated as nonattainment for O_3 for the NAAQS and CAAQS. Thus, existing O_3 levels in the SCAB are at unhealthy levels during certain periods. The health effects associated with O_3 generally relate to reduced lung function. Because the project would not involve construction activities that would result in O_3 precursor emissions (VOC or NO_x) that would exceed the SCAQMD thresholds, the project is not anticipated to substantially contribute to regional O_3 concentrations and associated health impacts. Similar to construction, no SCAQMD threshold would be exceeded during operation.

In addition to O_3, NO_x emissions contribute to potential exceedances of the NAAQS and CAAQS for NO_2 (since NO_2 is a constituent of NO_x). Exposure to NO_2 can cause lung irritation, bronchitis, and pneumonia, and lower resistance to respiratory infections. As depicted in Table 6, project construction and operation would not exceed the SCAQMD localized thresholds for NO_2. Thus, the project would not expected to exceed the NO_2 standards or contribute to associated health effects.

CO tends to be a localized impact associated with congested intersections. CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. CO hotspots were

discussed previously as a less than significant impact. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

The SCAB is designated as nonattainment for PM_{10} under the CAAQS and nonattainment for $PM_{2.5}$ under the NAAQS and CAAQS. Particulate matter contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing (EPA 2016). As with O_3 and NO_x, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed SCAQMD's LSTs. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, the project would not result in any potentially significant contribution to local or regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Impacts would be less than significant.

3.3.4 Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities (SCAQMD 1993). The project would not create any new sources of odor during operation. Therefore, project operations would result in an odor impact that is less than significant.

4 Greenhouse Gas Emissions Assessment

4.1 Thresholds of Significance

The significance criteria used to evaluate the project's GHG emissions impacts is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this GHG emissions analysis, the project would have a significant environmental impact if it would (14 CCR 15000 et seq.):

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts, GHG emissions impacts must also be evaluated on a project-level under CEQA.

The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009). The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory, titled "Discussion Draft CEQA and Climate Change Advisory," states that

> "Neither the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for perming an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact." (OPR 2018)

Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

Amendments to Section 15064.4 of the CEQA Guidelines were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Section 15064.4 specifies that a lead agency "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." Section 15064.4 also provides lead agencies with the discretion to determine whether to assess those emissions quantitatively or to rely on a qualitative analysis or performance-based standards. In addition, the CEQA Guidelines specify that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7[c]).

In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold

(SCAQMD 2008a). This guidance document, which builds on the previous guidance prepared by the CAPCOA, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO_2e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (SCAQMD 2008b).

SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e per year), commercial projects (1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per service population for project level analyses and 6.6 MT CO_2e per service population for plan level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

This analysis applies the SCAQMD threshold of 3,000 MT CO_2e per year for non-industrial projects. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the project, which is assumed to be 30 years (SCAQMD 2008a). This impact analysis, therefore, adds amortized construction emissions to the estimated annual operational emissions and then compares operational emissions to the proposed SCAQMD threshold of 3,000 MT CO_2e per year.

4.2 Impact Analysis

4.2.1 Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction Emissions

Construction of the project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor trucks, haul trucks, and worker vehicles. As stated above, the SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime; therefore, the total construction GHG emissions were calculated, amortized over 30 years, and then compared to the SCAQMD operational GHG significance threshold of 3,000 MT CO_2e per year.

CalEEMod was used to estimate GHG emissions during construction. Construction of the project is anticipated to last up to 9 months. Table 7 presents construction GHG emissions for the project from on-site and off-site emission sources.

Table 7. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons			
2022	182.82	0.04	<0.01	184.65
2023	48.35	0.01	<0.01	49.27
			Total	233.92
			Annualized emissions over 30 years (metric tons per year)	*7.80*

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; GHG = greenhouse gas; <0.01 = reported value less than 0.01.
See Attachment A for complete results.

As shown in Table 7, the estimated total GHG emissions during construction would be approximately 234 MT CO_2e. Estimated project-generated construction emissions amortized over 30 years would be approximately 8 MT CO_2e per year. As with project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Because there is no separate GHG threshold for construction, the evaluation of significance is determined by adding the amortized construction emissions to the operational emissions and comparing them to the operational threshold.

Operational Emissions

Operation of the project would generate GHG emissions through landscape maintenance equipment operation; solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution. No additional vehicle trips are anticipated to be generated by the project operations. CalEEMod was used to calculate the annual GHG emissions. The estimated operational project-generated GHG emissions are shown in Table 8.

Table 8. Estimated Annual Operation GHG Emissions

Emissions Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	<0.01	0.00	0.00	<0.01
Waste	0.02	<0.01	0.00	0.05
Water	2.35	<0.01	<0.01	2.36
Total Operational Emissions				**2.41**
Amortized Construction Emissions				*7.80*
Total Operational plus Amortized Construction Emissions				**10.20**
SCAQMD Threshold				*3,000*
Threshold Exceeded?				No

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; SCAQMD = South Coast Air Quality Management District; <0.01 = reported value less than 0.01.
See Attachment A for complete results.

As shown in Table 8, the estimated total project-generated GHG emissions would be approximately 10 MT CO_2e per year as a result of project operations and amortized construction. The project would not exceed the SCAQMD threshold of 3,000 MT CO_2e per year. Projects below this significance criterion have a minimal contribution to global emissions and are considered to have less than significant impacts. Therefore, operational impacts associated with directly or indirectly generating a significant quantity of GHG emissions would be less than significant.

4.2.2 Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Consistency with Cal Poly Pomona's Climate Action Plan

The Cal Poly Pomona Climate Action Plan (CAP) was updated in 2020 and includes a target of carbon neutrality by year 2030 for the campus (Cal Poly Pomona 2020). Various strategies are included in the CAP, including reducing energy and water consumption, reducing on-road vehicle GHGs, and waste diversion. As the project consists of demolition of an existing building and the construction of the Japanese Garden Extension/addition of a Discovery Garden and would not result in an increase in on-road vehicle trips, it would result in minimal GHG emissions on an annual basis and would not conflict with the goals or strategies of the CAP.

Consistency with SCAG's RTP/SCS

At the regional level, SCAG's RTP/SCS has been adopted for the purpose of reducing GHG emissions attributable to passenger vehicles in the Southern California region. The most recent RTP/SCS is SCAG's Connect SoCal, which was adopted on September 3, 2020 (SCAG 2020). While the RTP/SCS does not regulate land use or supersede the exercise of land use authority by SCAG's member jurisdictions (i.e., the County), the RTP/SCS is a relevant regional reference document for purposes of evaluating the intersection of land use and transportation patterns and the corresponding GHG emissions. The RTP/SCS is not directly applicable to the project because the underlying purpose of the RTP/SCS is to provide direction and guidance on future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout the County, as stipulated under SB 375.

However, as previously discussed, the project would be consistent with existing land use designations for the site and would not result in an increase in vehicle trips. Thus, the project would be consistent with SCAG's RTP/SCS.

Scoping Plan Consistency

The CARB Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Relatedly, in the Final Statement of Reasons for the Amendments to the CEQA Guidelines, the California Natural Resources Agency (CNRA) observed that "[t]he [Scoping Plan] may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-global warming potential GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., low-carbon fuel standard), among others. The project would comply with all applicable regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The project would also not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in Senate Bill (SB) 32 and Executive Order (EO) S-3-05, respectively. EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. In addition, since the specific path to compliance for the state in regard to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the project would be speculative and cannot be identified at this time. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

Based on the preceding considerations, and based on the minimal GHG emissions generated by the project as discussed under Section 4.2.1, the project would not conflict with any plans adopted with the purpose of reducing GHG emissions; therefore, the project's impacts on GHG emissions would be less than significant.

5 Conclusions

Criteria air pollutant emissions generated during construction and operation of the project would not exceed SCAQMD's significance thresholds or result in a cumulatively considerable net increase in emissions. Similarly, the emissions would also not exceed the LST significance thresholds for sensitive receptors or create a CO hotspot. Therefore, the project would result in a less than significant impact.

Estimated total GHG emissions generated during operation, including amortized construction emissions, would be below the SCAQMD's bright-line threshold of 3,000 MT CO_2e per year. The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs as there are currently no mandatory GHG regulations or finalized agency guidelines that would apply to implementation of this project. Accordingly, potential cumulative GHG impacts would be less than significant.

As such, the proposed project would not result in significant impacts to air quality or GHG emissions.

Matthew Morales
Senior Air Quality Specialist

6 References Cited

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

Cal Poly Pomona. 2020. *Climate Action Plan – Update January 2020.* Accessed February 2022. https://www.cpp.edu/sustainability/pdfs/cap-update-2019.pdf

CAPCOA (California Air Pollution Control Officers Association). 2021. *California Emissions Estimator Model (CalEEMod) User's Guide Version 2020.4.0.* Prepared by Trinity Consultants and the California Air Districts. May 2021. Accessed October 2021. http://www.caleemod.com/

CARB (California Air Resources Board). 2008. *Climate Change Scoping Plan: A Framework for Change*. December 2008. Accessed January 2019. http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm.

CARB. 2014. *First Update to the Climate Change Scoping Plan Building on the Framework Pursuant to AB 32 – The California Global Warming Solutions Act of 2006*. May 2014. Accessed January 2019. http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

CARB. 2017. *The 2017 Climate Change Scoping Plan Update*. January 20. Accessed January 2019. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

CNRA (California Natural Resources Agency). 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97*. December 2009. Accessed January 2019. http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

EPA (U.S. Environmental Protection Agency). 2016. "Health and Environmental Effects of Particulate Matter (PM)." https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm.

IPCC (Intergovernmental Panel on Climate Change). 2007. *IPCC Fourth Assessment Synthesis of Scientific-Technical Information Relevant to Interpreting Article 2 of the U.N. Framework Convention on Climate Change*. November. Accessed January 2019. https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf.

OEHHA (California Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments. February 2015. https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0.

OPR (Governor's Office of Planning and Research). 2018. *Discussion Draft: CEQA and Climate Change Advisory*. December 2018.

SCAG (Southern California Association of Governments). 2016. *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*. Adopted April 7, 2016. Accessed January 2019. http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx.

SCAG. 2020. *The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, Connect SoCal*. Adopted September 3, 2020.

SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*. Accessed January 2019. http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993).

SCAQMD. 2008a. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*. October 2008. Accessed January 2019. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf.

SCAQMD. 2008b. "Resolution No. 08-35: A Resolution of the Governing Board of the South Coast Air Quality Management District (AQMD) approving the Interim Greenhouse Gas (GHG) Significance Threshold to Be Used by the AQMD for Industrial Source Projects, Rules and Plans When It Is the Lead Agency for Projects Subject to the California Environmental Quality Act (CEQA)." *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*, Attachment C. December 5, 2008.

SCAQMD. 2009. *Final Localized Significance Threshold Methodology*. July. Accessed January 2019. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2.

SCAQMD. 2010. "Greenhouse Gases CEQA Significance Thresholds Working Group Meeting No. 15." September 28, 2010. Accessed January 2019. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2.

SCAQMD. 2017. *Final 2016 Air Quality Management Plan.* March 16, 2017. Accessed January 2019. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15.

SCAQMD. 2019. "SCAQMD Air Quality Significance Thresholds." Originally published in CEQA Air Quality Handbook, Table A9-11-A. Revised April 2019. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

Attachment A

CalEEMod Emissions Output

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Cal Poly Pomona CLA Renovation Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.99	Acre	0.99	43,124.40	0
Other Non-Asphalt Surfaces	0.45	1000sqft	0.01	450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPP CLA Renovation Project. Modeling construction only

Land Use - "City Park" use as surrogate land use and added non-asphalt paved surface for walkways

Construction Phase - Adjusted schedule based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Grading - 3,500 cubic yards of fill

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Demolition - 90,175 sf of buildings and 100 sf of paved area to be demolished

Trips and VMT - Rounded on-road trips up to even numbers. Vendor trips added to site preparation, grading, and trenching phases to account for water trucks

On-road Fugitive Dust - Default

Architectural Coating - None

Vehicle Trips - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Fleet Mix - No new trips during operations

Road Dust - No new trips during operations

Woodstoves - N/A

Consumer Products - Default

Area Coating - N/A

Landscape Equipment - Default

Energy Use - N/A

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation - Compliance with Rule 403 (water exposed area 2x per day)

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	27	0
tblConstructionPhase	NumDays	10.00	120.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	90.00
tblConstructionPhase	NumDays	1.00	30.00
tblConstructionPhase	NumDays	1.00	90.00
tblConstructionPhase	PhaseEndDate	6/14/2022	11/15/2022
tblConstructionPhase	PhaseEndDate	6/17/2022	2/8/2023

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseEndDate	11/11/2022	3/31/2023
tblConstructionPhase	PhaseEndDate	6/15/2022	2/3/2023
tblConstructionPhase	PhaseStartDate	6/16/2022	2/3/2023
tblConstructionPhase	PhaseStartDate	11/5/2022	3/20/2023
tblConstructionPhase	PhaseStartDate	6/15/2022	10/1/2022
tblGrading	MaterialImported	0.00	3,500.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	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	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	OutdoorWaterUseRate	1,179,566.54	1,191,481.35

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	2.4951	25.5455	20.7109	0.0412	1.6118	1.1697	2.7815	0.2607	1.0884	1.3490	0.0000	4,015.1480	4,015.1480	0.9905	0.0491	4,054.5330
2023	2.2014	34.6719	21.6331	0.0996	3.4052	0.9895	4.3948	0.7431	0.9145	1.6577	0.0000	10,493.6085	10,493.6085	1.3858	1.1408	10,868.2003
Maximum	**2.4951**	**34.6719**	**21.6331**	**0.0996**	**3.4052**	**1.1697**	**4.3948**	**0.7431**	**1.0884**	**1.6577**	**0.0000**	**10,493.6085**	**10,493.6085**	**1.3858**	**1.1408**	**10,868.2003**

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					
2022	2.4951	25.5455	20.7109	0.0412	0.9129	1.1697	2.0826	0.1675	1.0884	1.2558	0.0000	4,015.1480	4,015.1480	0.9905	0.0491	4,054.5330
2023	2.2014	34.6719	21.6331	0.0996	2.7675	0.9895	3.7571	0.6719	0.9145	1.5864	0.0000	10,493.6085	10,493.6085	1.3858	1.1408	10,868.2003
Maximum	**2.4951**	**34.6719**	**21.6331**	**0.0996**	**2.7675**	**1.1697**	**3.7571**	**0.6719**	**1.0884**	**1.5864**	**0.0000**	**10,493.6085**	**10,493.6085**	**1.3858**	**1.1408**	**10,868.2003**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	26.64	0.00	18.63	16.38	0.00	5.47	0.00	0.00	0.00	0.00	0.00	0.00

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.3900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
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	0.0000
Total	**2.3900e-003**	**0.0000**	**1.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.0000**	**3.4000e-004**

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	2.3900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
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	0.0000
Total	**2.3900e-003**	**0.0000**	**1.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.0000**	**3.4000e-004**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	Demolition	6/1/2022	11/15/2022	5	120	
2	Site Preparation	Site Preparation	10/1/2022	2/3/2023	5	90	
3	Landscaping	Site Preparation	2/20/2023	3/31/2023	5	30	
4	Site Renovation	Site Preparation	11/1/2022	3/6/2023	5	90	
5	Grading	Grading	2/3/2023	2/8/2023	5	4	
6	Trenching and Utilities	Trenching	1/30/2023	2/10/2023	5	10	
7	Paving	Paving	3/20/2023	3/31/2023	5	10	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 2

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Landscaping	Graders	0	8.00	187	0.41
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Site Renovation	Graders	0	8.00	187	0.41

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscaping	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Site Renovation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching and Utilities	Plate Compactors	1	8.00	8	0.43
Trenching and Utilities	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching and Utilities	Trenchers	1	8.00	78	0.50
Paving	Pumps	1	8.00	84	0.74

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	5	14.00	0.00	411.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	6.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	2.00	438.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping	2	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Renovation	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching and Utilities	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water Exposed Area

3.2 Demolition - 2022

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					0.7405	0.0000	0.7405	0.1121	0.0000	0.1121			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.7405**	**0.8379**	**1.5784**	**0.1121**	**0.7829**	**0.8950**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

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	0.0160	0.5752	0.1341	2.1300e-003	0.0600	4.2700e-003	0.0642	0.0164	4.0900e-003	0.0205		233.1656	233.1656	0.0124	0.0370	244.4997
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
Worker	0.0484	0.0354	0.5510	1.4300e-003	0.1565	1.0000e-003	0.1575	0.0415	9.2000e-004	0.0424		144.6819	144.6819	3.9400e-003	3.5000e-003	145.8244
Total	**0.0644**	**0.6106**	**0.6851**	**3.5600e-003**	**0.2164**	**5.2700e-003**	**0.2217**	**0.0579**	**5.0100e-003**	**0.0630**		**377.8475**	**377.8475**	**0.0163**	**0.0405**	**390.3241**

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					0.3332	0.0000	0.3332	0.0505	0.0000	0.0505			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.3332**	**0.8379**	**1.1711**	**0.0505**	**0.7829**	**0.8333**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

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	0.0160	0.5752	0.1341	2.1300e-003	0.0600	4.2700e-003	0.0642	0.0164	4.0900e-003	0.0205		233.1656	233.1656	0.0124	0.0370	244.4997
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
Worker	0.0484	0.0354	0.5510	1.4300e-003	0.1565	1.0000e-003	0.1575	0.0415	9.2000e-004	0.0424		144.6819	144.6819	3.9400e-003	3.5000e-003	145.8244
Total	**0.0644**	**0.6106**	**0.6851**	**3.5600e-003**	**0.2164**	**5.2700e-003**	**0.2217**	**0.0579**	**5.0100e-003**	**0.0630**		**377.8475**	**377.8475**	**0.0163**	**0.0405**	**390.3241**

3.3 Site Preparation - 2022

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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	0.0000
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0208	0.0152	0.2362	6.1000e-004	0.0671	4.3000e-004	0.0675	0.0178	4.0000e-004	0.0182		62.0065	62.0065	1.6900e-003	1.5000e-003	62.4962
Total	**0.0247**	**0.1131**	**0.2697**	**1.0000e-003**	**0.0799**	**1.3600e-003**	**0.0812**	**0.0215**	**1.2900e-003**	**0.0228**		**104.0988**	**104.0988**	**3.1000e-003**	**7.5700e-003**	**106.4312**

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					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.2386**	**0.2573**	**0.4959**	**0.0258**	**0.2367**	**0.2625**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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	0.0000
Vendor	3.9400e-003	0.0980	0.0336	3.9000e-004	0.0128	9.3000e-004	0.0137	3.6900e-003	8.9000e-004	4.5800e-003		42.0923	42.0923	1.4100e-003	6.0700e-003	43.9350
Worker	0.0208	0.0152	0.2362	6.1000e-004	0.0671	4.3000e-004	0.0675	0.0178	4.0000e-004	0.0182		62.0065	62.0065	1.6900e-003	1.5000e-003	62.4962
Total	**0.0247**	**0.1131**	**0.2697**	**1.0000e-003**	**0.0799**	**1.3600e-003**	**0.0812**	**0.0215**	**1.2900e-003**	**0.0228**		**104.0988**	**104.0988**	**3.1000e-003**	**7.5700e-003**	**106.4312**

3.3 Site Preparation - 2023

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	**0.5348**	**6.1887**	**3.9239**	**9.7300e-003**	**0.5303**	**0.2266**	**0.7568**	**0.0573**	**0.2084**	**0.2657**		**942.4317**	**942.4317**	**0.3048**		**950.0517**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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	0.0000
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0192	0.0134	0.2168	5.9000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		60.0045	60.0045	1.5100e-003	1.3800e-003	60.4550
Total	**0.0215**	**0.0902**	**0.2466**	**9.6000e-004**	**0.0799**	**7.9000e-004**	**0.0807**	**0.0215**	**7.4000e-004**	**0.0222**		**100.0610**	**100.0610**	**2.8500e-003**	**7.1400e-003**	**102.2612**

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					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
Total	**0.5348**	**6.1887**	**3.9239**	**9.7300e-003**	**0.2386**	**0.2266**	**0.4652**	**0.0258**	**0.2084**	**0.2342**	**0.0000**	**942.4317**	**942.4317**	**0.3048**		**950.0517**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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	0.0000
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0192	0.0134	0.2168	5.9000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		60.0045	60.0045	1.5100e-003	1.3800e-003	60.4550
Total	**0.0215**	**0.0902**	**0.2466**	**9.6000e-004**	**0.0799**	**7.9000e-004**	**0.0807**	**0.0215**	**7.4000e-004**	**0.0222**		**100.0610**	**100.0610**	**2.8500e-003**	**7.1400e-003**	**102.2612**

3.4 Landscaping - 2023

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3027	3.0714	4.4626	6.2300e-003		0.1516	0.1516		0.1395	0.1395		603.1530	603.1530	0.1951		608.0298
Total	**0.3027**	**3.0714**	**4.4626**	**6.2300e-003**	**0.0000**	**0.1516**	**0.1516**	**0.0000**	**0.1395**	**0.1395**		**603.1530**	**603.1530**	**0.1951**		**608.0298**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Landscaping - 2023

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	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
Worker	0.0192	0.0134	0.2168	5.9000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		60.0045	60.0045	1.5100e-003	1.3800e-003	60.4550
Total	**0.0192**	**0.0134**	**0.2168**	**5.9000e-004**	**0.0671**	**4.0000e-004**	**0.0675**	**0.0178**	**3.7000e-004**	**0.0182**		**60.0045**	**60.0045**	**1.5100e-003**	**1.3800e-003**	**60.4550**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3027	3.0714	4.4626	6.2300e-003		0.1516	0.1516		0.1395	0.1395	0.0000	603.1530	603.1530	0.1951		608.0298
Total	**0.3027**	**3.0714**	**4.4626**	**6.2300e-003**	**0.0000**	**0.1516**	**0.1516**	**0.0000**	**0.1395**	**0.1395**	**0.0000**	**603.1530**	**603.1530**	**0.1951**		**608.0298**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Landscaping - 2023

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	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
Worker	0.0192	0.0134	0.2168	5.9000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		60.0045	60.0045	1.5100e-003	1.3800e-003	60.4550
Total	**0.0192**	**0.0134**	**0.2168**	**5.9000e-004**	**0.0671**	**4.0000e-004**	**0.0675**	**0.0178**	**3.7000e-004**	**0.0182**		**60.0045**	**60.0045**	**1.5100e-003**	**1.3800e-003**	**60.4550**

3.5 Site Renovation - 2022

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1235	1.2567	1.6785	2.3300e-003		0.0676	0.0676		0.0622	0.0622		225.9292	225.9292	0.0731		227.7560
Total	**0.1235**	**1.2567**	**1.6785**	**2.3300e-003**	**0.0000**	**0.0676**	**0.0676**	**0.0000**	**0.0622**	**0.0622**		**225.9292**	**225.9292**	**0.0731**		**227.7560**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2022

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	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
Worker	0.0138	0.0101	0.1574	4.1000e-004	0.0447	2.9000e-004	0.0450	0.0119	2.6000e-004	0.0121		41.3377	41.3377	1.1300e-003	1.0000e-003	41.6641
Total	**0.0138**	**0.0101**	**0.1574**	**4.1000e-004**	**0.0447**	**2.9000e-004**	**0.0450**	**0.0119**	**2.6000e-004**	**0.0121**		**41.3377**	**41.3377**	**1.1300e-003**	**1.0000e-003**	**41.6641**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1235	1.2567	1.6785	2.3300e-003		0.0676	0.0676		0.0622	0.0622	0.0000	225.9292	225.9292	0.0731		227.7560
Total	**0.1235**	**1.2567**	**1.6785**	**2.3300e-003**	**0.0000**	**0.0676**	**0.0676**	**0.0000**	**0.0622**	**0.0622**	**0.0000**	**225.9292**	**225.9292**	**0.0731**		**227.7560**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2022

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	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
Worker	0.0138	0.0101	0.1574	4.1000e-004	0.0447	2.9000e-004	0.0450	0.0119	2.6000e-004	0.0121		41.3377	41.3377	1.1300e-003	1.0000e-003	41.6641
Total	**0.0138**	**0.0101**	**0.1574**	**4.1000e-004**	**0.0447**	**2.9000e-004**	**0.0450**	**0.0119**	**2.6000e-004**	**0.0121**		**41.3377**	**41.3377**	**1.1300e-003**	**1.0000e-003**	**41.6641**

3.5 Site Renovation - 2023

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1135	1.1518	1.6735	2.3400e-003		0.0569	0.0569		0.0523	0.0523		226.1824	226.1824	0.0732		228.0112
Total	**0.1135**	**1.1518**	**1.6735**	**2.3400e-003**	**0.0000**	**0.0569**	**0.0569**	**0.0000**	**0.0523**	**0.0523**		**226.1824**	**226.1824**	**0.0732**		**228.0112**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2023

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	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
Worker	0.0128	8.9200e-003	0.1446	4.0000e-004	0.0447	2.7000e-004	0.0450	0.0119	2.5000e-004	0.0121		40.0030	40.0030	1.0100e-003	9.2000e-004	40.3033
Total	**0.0128**	**8.9200e-003**	**0.1446**	**4.0000e-004**	**0.0447**	**2.7000e-004**	**0.0450**	**0.0119**	**2.5000e-004**	**0.0121**		**40.0030**	**40.0030**	**1.0100e-003**	**9.2000e-004**	**40.3033**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1135	1.1518	1.6735	2.3400e-003		0.0569	0.0569		0.0523	0.0523	0.0000	226.1824	226.1824	0.0732		228.0112
Total	**0.1135**	**1.1518**	**1.6735**	**2.3400e-003**	**0.0000**	**0.0569**	**0.0569**	**0.0000**	**0.0523**	**0.0523**	**0.0000**	**226.1824**	**226.1824**	**0.0732**		**228.0112**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2023

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	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
Worker	0.0128	8.9200e-003	0.1446	4.0000e-004	0.0447	2.7000e-004	0.0450	0.0119	2.5000e-004	0.0121		40.0030	40.0030	1.0100e-003	9.2000e-004	40.3033
Total	**0.0128**	**8.9200e-003**	**0.1446**	**4.0000e-004**	**0.0447**	**2.7000e-004**	**0.0450**	**0.0119**	**2.5000e-004**	**0.0121**		**40.0030**	**40.0030**	**1.0100e-003**	**9.2000e-004**	**40.3033**

3.6 Grading - 2023

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					0.6292	0.0000	0.6292	0.0722	0.0000	0.0722			0.0000			0.0000
Off-Road	0.6862	7.7244	6.1553	0.0129		0.3024	0.3024		0.2782	0.2782		1,244.0082	1,244.0082	0.4023		1,254.0666
Total	**0.6862**	**7.7244**	**6.1553**	**0.0129**	**0.6292**	**0.3024**	**0.9316**	**0.0722**	**0.2782**	**0.3504**		**1,244.0082**	**1,244.0082**	**0.4023**		**1,254.0666**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Grading - 2023

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	0.2375	14.2886	3.8137	0.0640	1.9167	0.0901	2.0068	0.5255	0.0862	0.6117		7,037.1281	7,037.1281	0.3878	1.1175	7,379.8345
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0256	0.0179	0.2891	7.9000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		80.0060	80.0060	2.0200e-003	1.8500e-003	80.6067
Total	**0.2654**	**14.3833**	**4.1326**	**0.0652**	**2.0189**	**0.0911**	**2.1100**	**0.5529**	**0.0871**	**0.6400**		**7,157.1907**	**7,157.1907**	**0.3912**	**1.1251**	**7,502.2474**

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					0.2831	0.0000	0.2831	0.0325	0.0000	0.0325			0.0000			0.0000
Off-Road	0.6862	7.7244	6.1553	0.0129		0.3024	0.3024		0.2782	0.2782	0.0000	1,244.0082	1,244.0082	0.4023		1,254.0666
Total	**0.6862**	**7.7244**	**6.1553**	**0.0129**	**0.2831**	**0.3024**	**0.5855**	**0.0325**	**0.2782**	**0.3107**	**0.0000**	**1,244.0082**	**1,244.0082**	**0.4023**		**1,254.0666**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Grading - 2023

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	0.2375	14.2886	3.8137	0.0640	1.9167	0.0901	2.0068	0.5255	0.0862	0.6117		7,037.1281	7,037.1281	0.3878	1.1175	7,379.8345
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0256	0.0179	0.2891	7.9000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		80.0060	80.0060	2.0200e-003	1.8500e-003	80.6067
Total	**0.2654**	**14.3833**	**4.1326**	**0.0652**	**2.0189**	**0.0911**	**2.1100**	**0.5529**	**0.0871**	**0.6400**		**7,157.1907**	**7,157.1907**	**0.3912**	**1.1251**	**7,502.2474**

3.7 Trenching and Utilities - 2023

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	0.5393	5.0301	5.0378	6.9800e-003		0.3107	0.3107		0.2866	0.2866		663.6691	663.6691	0.2071		668.8460
Total	**0.5393**	**5.0301**	**5.0378**	**6.9800e-003**		**0.3107**	**0.3107**		**0.2866**	**0.2866**		**663.6691**	**663.6691**	**0.2071**		**668.8460**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Trenching and Utilities - 2023

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	0.0000
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0256	0.0179	0.2891	7.9000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		80.0060	80.0060	2.0200e-003	1.8500e-003	80.6067
Total	**0.0279**	**0.0946**	**0.3189**	**1.1600e-003**	**0.1022**	**9.3000e-004**	**0.1032**	**0.0274**	**8.7000e-004**	**0.0283**		**120.0625**	**120.0625**	**3.3600e-003**	**7.6100e-003**	**122.4129**

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	0.5393	5.0301	5.0378	6.9800e-003		0.3107	0.3107		0.2866	0.2866	0.0000	663.6691	663.6691	0.2071		668.8460
Total	**0.5393**	**5.0301**	**5.0378**	**6.9800e-003**		**0.3107**	**0.3107**		**0.2866**	**0.2866**	**0.0000**	**663.6691**	**663.6691**	**0.2071**		**668.8460**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Trenching and Utilities - 2023

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	0.0000
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0256	0.0179	0.2891	7.9000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		80.0060	80.0060	2.0200e-003	1.8500e-003	80.6067
Total	**0.0279**	**0.0946**	**0.3189**	**1.1600e-003**	**0.1022**	**9.3000e-004**	**0.1032**	**0.0274**	**8.7000e-004**	**0.0283**		**120.0625**	**120.0625**	**3.3600e-003**	**7.6100e-003**	**122.4129**

3.8 Paving - 2023

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	0.3719	3.0290	3.9566	7.1100e-003		0.1456	0.1456		0.1456	0.1456		660.9218	660.9218	0.0324		661.7328
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3719**	**3.0290**	**3.9566**	**7.1100e-003**		**0.1456**	**0.1456**		**0.1456**	**0.1456**		**660.9218**	**660.9218**	**0.0324**		**661.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Paving - 2023

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	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
Worker	0.0192	0.0134	0.2168	5.9000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		60.0045	60.0045	1.5100e-003	1.3800e-003	60.4550
Total	**0.0192**	**0.0134**	**0.2168**	**5.9000e-004**	**0.0671**	**4.0000e-004**	**0.0675**	**0.0178**	**3.7000e-004**	**0.0182**		**60.0045**	**60.0045**	**1.5100e-003**	**1.3800e-003**	**60.4550**

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	0.3719	3.0290	3.9566	7.1100e-003		0.1456	0.1456		0.1456	0.1456	0.0000	660.9218	660.9218	0.0324		661.7328
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3719**	**3.0290**	**3.9566**	**7.1100e-003**		**0.1456**	**0.1456**		**0.1456**	**0.1456**	**0.0000**	**660.9218**	**660.9218**	**0.0324**		**661.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Paving - 2023

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	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
Worker	0.0192	0.0134	0.2168	5.9000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		60.0045	60.0045	1.5100e-003	1.3800e-003	60.4550
Total	**0.0192**	**0.0134**	**0.2168**	**5.9000e-004**	**0.0671**	**4.0000e-004**	**0.0675**	**0.0178**	**3.7000e-004**	**0.0182**		**60.0045**	**60.0045**	**1.5100e-003**	**1.3800e-003**	**60.4550**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	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

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		
Other Non-Asphalt Surfaces	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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	16.60	8.40	6.90	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	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Other Non-Asphalt Surfaces	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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

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
Other Non-Asphalt Surfaces	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	2.3900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
Unmitigated	2.3900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
Total	**2.3900e-003**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.2000e-004**	**3.2000e-004**	**0.0000**		**3.4000e-004**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
Total	**2.3900e-003**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.2000e-004**	**3.2000e-004**	**0.0000**		**3.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Cal Poly Pomona CLA Renovation Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.99	Acre	0.99	43,124.40	0
Other Non-Asphalt Surfaces	0.45	1000sqft	0.01	450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPP CLA Renovation Project. Modeling construction only

Land Use - "City Park" use as surrogate land use and added non-asphalt paved surface for walkways

Construction Phase - Adjusted schedule based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Grading - 3,500 cubic yards of fill

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Demolition - 90,175 sf of buildings and 100 sf of paved area to be demolished

Trips and VMT - Rounded on-road trips up to even numbers. Vendor trips added to site preparation, grading, and trenching phases to account for water trucks

On-road Fugitive Dust - Default

Architectural Coating - None

Vehicle Trips - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Fleet Mix - No new trips during operations

Road Dust - No new trips during operations

Woodstoves - N/A

Consumer Products - Default

Area Coating - N/A

Landscape Equipment - Default

Energy Use - N/A

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation - Compliance with Rule 403 (water exposed area 2x per day)

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	27	0
tblConstructionPhase	NumDays	10.00	120.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	90.00
tblConstructionPhase	NumDays	1.00	30.00
tblConstructionPhase	NumDays	1.00	90.00
tblConstructionPhase	PhaseEndDate	6/14/2022	11/15/2022
tblConstructionPhase	PhaseEndDate	6/17/2022	2/8/2023

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseEndDate	11/11/2022	3/31/2023
tblConstructionPhase	PhaseEndDate	6/15/2022	2/3/2023
tblConstructionPhase	PhaseStartDate	6/16/2022	2/3/2023
tblConstructionPhase	PhaseStartDate	11/5/2022	3/20/2023
tblConstructionPhase	PhaseStartDate	6/15/2022	10/1/2022
tblGrading	MaterialImported	0.00	3,500.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	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	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	OutdoorWaterUseRate	1,179,566.54	1,191,481.35

2.0 Emissions Summary

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	2.5005	25.5793	20.6372	0.0410	1.6118	1.1698	2.7816	0.2607	1.0884	1.3490	0.0000	4,002.1188	4,002.1188	0.9906	0.0495	4,041.6339
2023	2.1920	35.3187	21.6123	0.0996	3.4052	0.9898	4.3950	0.7431	0.9147	1.6579	0.0000	10,487.5211	10,487.5211	1.3850	1.1424	10,862.5896
Maximum	**2.5005**	**35.3187**	**21.6123**	**0.0996**	**3.4052**	**1.1698**	**4.3950**	**0.7431**	**1.0884**	**1.6579**	**0.0000**	**10,487.5211**	**10,487.5211**	**1.3850**	**1.1424**	**10,862.5896**

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					
2022	2.5005	25.5793	20.6372	0.0410	0.9129	1.1698	2.0826	0.1675	1.0884	1.2558	0.0000	4,002.1188	4,002.1188	0.9906	0.0495	4,041.6339
2023	2.1920	35.3187	21.6123	0.0996	2.7675	0.9898	3.7573	0.6719	0.9147	1.5867	0.0000	10,487.5211	10,487.5211	1.3850	1.1424	10,862.5896
Maximum	**2.5005**	**35.3187**	**21.6123**	**0.0996**	**2.7675**	**1.1698**	**3.7573**	**0.6719**	**1.0884**	**1.5867**	**0.0000**	**10,487.5211**	**10,487.5211**	**1.3850**	**1.1424**	**10,862.5896**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	26.64	0.00	18.62	16.38	0.00	5.47	0.00	0.00	0.00	0.00	0.00	0.00

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	2.3900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
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	0.0000
Total	**2.3900e-003**	**0.0000**	**1.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.0000**	**3.4000e-004**

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	2.3900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
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	0.0000
Total	**2.3900e-003**	**0.0000**	**1.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**0.0000**	**3.4000e-004**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	Demolition	6/1/2022	11/15/2022	5	120	
2	Site Preparation	Site Preparation	10/1/2022	2/3/2023	5	90	
3	Landscaping	Site Preparation	2/20/2023	3/31/2023	5	30	
4	Site Renovation	Site Preparation	11/1/2022	3/6/2023	5	90	
5	Grading	Grading	2/3/2023	2/8/2023	5	4	
6	Trenching and Utilities	Trenching	1/30/2023	2/10/2023	5	10	
7	Paving	Paving	3/20/2023	3/31/2023	5	10	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 2

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Landscaping	Graders	0	8.00	187	0.41
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Site Renovation	Graders	0	8.00	187	0.41

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscaping	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Site Renovation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching and Utilities	Plate Compactors	1	8.00	8	0.43
Trenching and Utilities	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching and Utilities	Trenchers	1	8.00	78	0.50
Paving	Pumps	1	8.00	84	0.74

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	5	14.00	0.00	411.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	6.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	2.00	438.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping	2	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Renovation	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching and Utilities	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water Exposed Area

3.2 Demolition - 2022

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					0.7405	0.0000	0.7405	0.1121	0.0000	0.1121			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.7405**	**0.8379**	**1.5784**	**0.1121**	**0.7829**	**0.8950**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

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	0.0156	0.5986	0.1365	2.1300e-003	0.0600	4.2800e-003	0.0642	0.0164	4.1000e-003	0.0205		233.2340	233.2340	0.0124	0.0370	244.5711
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
Worker	0.0519	0.0391	0.5059	1.3600e-003	0.1565	1.0000e-003	0.1575	0.0415	9.2000e-004	0.0424		137.0324	137.0324	3.9900e-003	3.7400e-003	138.2477
Total	**0.0674**	**0.6376**	**0.6424**	**3.4900e-003**	**0.2164**	**5.2800e-003**	**0.2217**	**0.0579**	**5.0200e-003**	**0.0630**		**370.2664**	**370.2664**	**0.0164**	**0.0408**	**382.8188**

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					0.3332	0.0000	0.3332	0.0505	0.0000	0.0505			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.3332**	**0.8379**	**1.1711**	**0.0505**	**0.7829**	**0.8333**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

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	0.0156	0.5986	0.1365	2.1300e-003	0.0600	4.2800e-003	0.0642	0.0164	4.1000e-003	0.0205		233.2340	233.2340	0.0124	0.0370	244.5711
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
Worker	0.0519	0.0391	0.5059	1.3600e-003	0.1565	1.0000e-003	0.1575	0.0415	9.2000e-004	0.0424		137.0324	137.0324	3.9900e-003	3.7400e-003	138.2477
Total	**0.0674**	**0.6376**	**0.6424**	**3.4900e-003**	**0.2164**	**5.2800e-003**	**0.2217**	**0.0579**	**5.0200e-003**	**0.0630**		**370.2664**	**370.2664**	**0.0164**	**0.0408**	**382.8188**

3.3 Site Preparation - 2022

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367		942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.5303**	**0.2573**	**0.7876**	**0.0573**	**0.2367**	**0.2940**		**942.5179**	**942.5179**	**0.3048**		**950.1386**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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	0.0000
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0222	0.0168	0.2168	5.8000e-004	0.0671	4.3000e-004	0.0675	0.0178	4.0000e-004	0.0182		58.7282	58.7282	1.7100e-003	1.6000e-003	59.2490
Total	**0.0261**	**0.1188**	**0.2516**	**9.7000e-004**	**0.0799**	**1.3700e-003**	**0.0812**	**0.0215**	**1.3000e-003**	**0.0228**		**100.8363**	**100.8363**	**3.1100e-003**	**7.6700e-003**	**103.2021**

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					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.5797	6.9332	3.9597	9.7300e-003		0.2573	0.2573		0.2367	0.2367	0.0000	942.5179	942.5179	0.3048		950.1386
Total	**0.5797**	**6.9332**	**3.9597**	**9.7300e-003**	**0.2386**	**0.2573**	**0.4959**	**0.0258**	**0.2367**	**0.2625**	**0.0000**	**942.5179**	**942.5179**	**0.3048**		**950.1386**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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	0.0000
Vendor	3.8900e-003	0.1020	0.0348	3.9000e-004	0.0128	9.4000e-004	0.0138	3.6900e-003	9.0000e-004	4.5800e-003		42.1081	42.1081	1.4000e-003	6.0700e-003	43.9531
Worker	0.0222	0.0168	0.2168	5.8000e-004	0.0671	4.3000e-004	0.0675	0.0178	4.0000e-004	0.0182		58.7282	58.7282	1.7100e-003	1.6000e-003	59.2490
Total	**0.0261**	**0.1188**	**0.2516**	**9.7000e-004**	**0.0799**	**1.3700e-003**	**0.0812**	**0.0215**	**1.3000e-003**	**0.0228**		**100.8363**	**100.8363**	**3.1100e-003**	**7.6700e-003**	**103.2021**

3.3 Site Preparation - 2023

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					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084		942.4317	942.4317	0.3048		950.0517
Total	**0.5348**	**6.1887**	**3.9239**	**9.7300e-003**	**0.5303**	**0.2266**	**0.7568**	**0.0573**	**0.2084**	**0.2657**		**942.4317**	**942.4317**	**0.3048**		**950.0517**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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	0.0000
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0206	0.0148	0.1993	5.6000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		56.8412	56.8412	1.5300e-003	1.4800e-003	57.3203
Total	**0.0229**	**0.0952**	**0.2300**	**9.3000e-004**	**0.0799**	**7.9000e-004**	**0.0807**	**0.0215**	**7.4000e-004**	**0.0222**		**96.9653**	**96.9653**	**2.8700e-003**	**7.2500e-003**	**99.1986**

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					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.5348	6.1887	3.9239	9.7300e-003		0.2266	0.2266		0.2084	0.2084	0.0000	942.4317	942.4317	0.3048		950.0517
Total	**0.5348**	**6.1887**	**3.9239**	**9.7300e-003**	**0.2386**	**0.2266**	**0.4652**	**0.0258**	**0.2084**	**0.2342**	**0.0000**	**942.4317**	**942.4317**	**0.3048**		**950.0517**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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	0.0000
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0206	0.0148	0.1993	5.6000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		56.8412	56.8412	1.5300e-003	1.4800e-003	57.3203
Total	**0.0229**	**0.0952**	**0.2300**	**9.3000e-004**	**0.0799**	**7.9000e-004**	**0.0807**	**0.0215**	**7.4000e-004**	**0.0222**		**96.9653**	**96.9653**	**2.8700e-003**	**7.2500e-003**	**99.1986**

3.4 Landscaping - 2023

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3027	3.0714	4.4626	6.2300e-003		0.1516	0.1516		0.1395	0.1395		603.1530	603.1530	0.1951		608.0298
Total	**0.3027**	**3.0714**	**4.4626**	**6.2300e-003**	**0.0000**	**0.1516**	**0.1516**	**0.0000**	**0.1395**	**0.1395**		**603.1530**	**603.1530**	**0.1951**		**608.0298**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Landscaping - 2023

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	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
Worker	0.0206	0.0148	0.1993	5.6000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		56.8412	56.8412	1.5300e-003	1.4800e-003	57.3203
Total	**0.0206**	**0.0148**	**0.1993**	**5.6000e-004**	**0.0671**	**4.0000e-004**	**0.0675**	**0.0178**	**3.7000e-004**	**0.0182**		**56.8412**	**56.8412**	**1.5300e-003**	**1.4800e-003**	**57.3203**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.3027	3.0714	4.4626	6.2300e-003		0.1516	0.1516		0.1395	0.1395	0.0000	603.1530	603.1530	0.1951		608.0298
Total	**0.3027**	**3.0714**	**4.4626**	**6.2300e-003**	**0.0000**	**0.1516**	**0.1516**	**0.0000**	**0.1395**	**0.1395**	**0.0000**	**603.1530**	**603.1530**	**0.1951**		**608.0298**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Landscaping - 2023

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	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
Worker	0.0206	0.0148	0.1993	5.6000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		56.8412	56.8412	1.5300e-003	1.4800e-003	57.3203
Total	**0.0206**	**0.0148**	**0.1993**	**5.6000e-004**	**0.0671**	**4.0000e-004**	**0.0675**	**0.0178**	**3.7000e-004**	**0.0182**		**56.8412**	**56.8412**	**1.5300e-003**	**1.4800e-003**	**57.3203**

3.5 Site Renovation - 2022

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1235	1.2567	1.6785	2.3300e-003		0.0676	0.0676		0.0622	0.0622		225.9292	225.9292	0.0731		227.7560
Total	**0.1235**	**1.2567**	**1.6785**	**2.3300e-003**	**0.0000**	**0.0676**	**0.0676**	**0.0000**	**0.0622**	**0.0622**		**225.9292**	**225.9292**	**0.0731**		**227.7560**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2022

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	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
Worker	0.0148	0.0112	0.1446	3.9000e-004	0.0447	2.9000e-004	0.0450	0.0119	2.6000e-004	0.0121		39.1521	39.1521	1.1400e-003	1.0700e-003	39.4993
Total	**0.0148**	**0.0112**	**0.1446**	**3.9000e-004**	**0.0447**	**2.9000e-004**	**0.0450**	**0.0119**	**2.6000e-004**	**0.0121**		**39.1521**	**39.1521**	**1.1400e-003**	**1.0700e-003**	**39.4993**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1235	1.2567	1.6785	2.3300e-003		0.0676	0.0676		0.0622	0.0622	0.0000	225.9292	225.9292	0.0731		227.7560
Total	**0.1235**	**1.2567**	**1.6785**	**2.3300e-003**	**0.0000**	**0.0676**	**0.0676**	**0.0000**	**0.0622**	**0.0622**	**0.0000**	**225.9292**	**225.9292**	**0.0731**		**227.7560**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2022

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	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
Worker	0.0148	0.0112	0.1446	3.9000e-004	0.0447	2.9000e-004	0.0450	0.0119	2.6000e-004	0.0121		39.1521	39.1521	1.1400e-003	1.0700e-003	39.4993
Total	**0.0148**	**0.0112**	**0.1446**	**3.9000e-004**	**0.0447**	**2.9000e-004**	**0.0450**	**0.0119**	**2.6000e-004**	**0.0121**		**39.1521**	**39.1521**	**1.1400e-003**	**1.0700e-003**	**39.4993**

3.5 Site Renovation - 2023

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1135	1.1518	1.6735	2.3400e-003		0.0569	0.0569		0.0523	0.0523		226.1824	226.1824	0.0732		228.0112
Total	**0.1135**	**1.1518**	**1.6735**	**2.3400e-003**	**0.0000**	**0.0569**	**0.0569**	**0.0000**	**0.0523**	**0.0523**		**226.1824**	**226.1824**	**0.0732**		**228.0112**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2023

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	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
Worker	0.0138	9.8600e-003	0.1329	3.7000e-004	0.0447	2.7000e-004	0.0450	0.0119	2.5000e-004	0.0121		37.8941	37.8941	1.0200e-003	9.9000e-004	38.2136
Total	**0.0138**	**9.8600e-003**	**0.1329**	**3.7000e-004**	**0.0447**	**2.7000e-004**	**0.0450**	**0.0119**	**2.5000e-004**	**0.0121**		**37.8941**	**37.8941**	**1.0200e-003**	**9.9000e-004**	**38.2136**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1135	1.1518	1.6735	2.3400e-003		0.0569	0.0569		0.0523	0.0523	0.0000	226.1824	226.1824	0.0732		228.0112
Total	**0.1135**	**1.1518**	**1.6735**	**2.3400e-003**	**0.0000**	**0.0569**	**0.0569**	**0.0000**	**0.0523**	**0.0523**	**0.0000**	**226.1824**	**226.1824**	**0.0732**		**228.0112**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2023

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	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
Worker	0.0138	9.8600e-003	0.1329	3.7000e-004	0.0447	2.7000e-004	0.0450	0.0119	2.5000e-004	0.0121		37.8941	37.8941	1.0200e-003	9.9000e-004	38.2136
Total	**0.0138**	**9.8600e-003**	**0.1329**	**3.7000e-004**	**0.0447**	**2.7000e-004**	**0.0450**	**0.0119**	**2.5000e-004**	**0.0121**		**37.8941**	**37.8941**	**1.0200e-003**	**9.9000e-004**	**38.2136**

3.6 Grading - 2023

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					0.6292	0.0000	0.6292	0.0722	0.0000	0.0722			0.0000			0.0000
Off-Road	0.6862	7.7244	6.1553	0.0129		0.3024	0.3024		0.2782	0.2782		1,244.0082	1,244.0082	0.4023		1,254.0666
Total	**0.6862**	**7.7244**	**6.1553**	**0.0129**	**0.6292**	**0.3024**	**0.9316**	**0.0722**	**0.2782**	**0.3504**		**1,244.0082**	**1,244.0082**	**0.4023**		**1,254.0666**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Grading - 2023

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	0.2222	14.9185	3.8662	0.0641	1.9167	0.0904	2.0071	0.5255	0.0865	0.6120		7,044.5457	7,044.5457	0.3870	1.1187	7,387.5914
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0275	0.0197	0.2658	7.5000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		75.7883	75.7883	2.0500e-003	1.9700e-003	76.4271
Total	**0.2519**	**15.0186**	**4.1626**	**0.0652**	**2.0189**	**0.0913**	**2.1102**	**0.5529**	**0.0873**	**0.6402**		**7,160.4580**	**7,160.4580**	**0.3904**	**1.1264**	**7,505.8967**

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					0.2831	0.0000	0.2831	0.0325	0.0000	0.0325			0.0000			0.0000
Off-Road	0.6862	7.7244	6.1553	0.0129		0.3024	0.3024		0.2782	0.2782	0.0000	1,244.0082	1,244.0082	0.4023		1,254.0666
Total	**0.6862**	**7.7244**	**6.1553**	**0.0129**	**0.2831**	**0.3024**	**0.5855**	**0.0325**	**0.2782**	**0.3107**	**0.0000**	**1,244.0082**	**1,244.0082**	**0.4023**		**1,254.0666**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Grading - 2023

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	0.2222	14.9185	3.8662	0.0641	1.9167	0.0904	2.0071	0.5255	0.0865	0.6120		7,044.5457	7,044.5457	0.3870	1.1187	7,387.5914
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0275	0.0197	0.2658	7.5000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		75.7883	75.7883	2.0500e-003	1.9700e-003	76.4271
Total	**0.2519**	**15.0186**	**4.1626**	**0.0652**	**2.0189**	**0.0913**	**2.1102**	**0.5529**	**0.0873**	**0.6402**		**7,160.4580**	**7,160.4580**	**0.3904**	**1.1264**	**7,505.8967**

3.7 Trenching and Utilities - 2023

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	0.5393	5.0301	5.0378	6.9800e-003		0.3107	0.3107		0.2866	0.2866		663.6691	663.6691	0.2071		668.8460
Total	**0.5393**	**5.0301**	**5.0378**	**6.9800e-003**		**0.3107**	**0.3107**		**0.2866**	**0.2866**		**663.6691**	**663.6691**	**0.2071**		**668.8460**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Trenching and Utilities - 2023

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	0.0000
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0275	0.0197	0.2658	7.5000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		75.7883	75.7883	2.0500e-003	1.9700e-003	76.4271
Total	**0.0297**	**0.1001**	**0.2964**	**1.1200e-003**	**0.1022**	**9.3000e-004**	**0.1032**	**0.0274**	**8.7000e-004**	**0.0283**		**115.9124**	**115.9124**	**3.3900e-003**	**7.7400e-003**	**118.3053**

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	0.5393	5.0301	5.0378	6.9800e-003		0.3107	0.3107		0.2866	0.2866	0.0000	663.6691	663.6691	0.2071		668.8460
Total	**0.5393**	**5.0301**	**5.0378**	**6.9800e-003**		**0.3107**	**0.3107**		**0.2866**	**0.2866**	**0.0000**	**663.6691**	**663.6691**	**0.2071**		**668.8460**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Trenching and Utilities - 2023

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	0.0000
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0275	0.0197	0.2658	7.5000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		75.7883	75.7883	2.0500e-003	1.9700e-003	76.4271
Total	**0.0297**	**0.1001**	**0.2964**	**1.1200e-003**	**0.1022**	**9.3000e-004**	**0.1032**	**0.0274**	**8.7000e-004**	**0.0283**		**115.9124**	**115.9124**	**3.3900e-003**	**7.7400e-003**	**118.3053**

3.8 Paving - 2023

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	0.3719	3.0290	3.9566	7.1100e-003		0.1456	0.1456		0.1456	0.1456		660.9218	660.9218	0.0324		661.7328
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3719**	**3.0290**	**3.9566**	**7.1100e-003**		**0.1456**	**0.1456**		**0.1456**	**0.1456**		**660.9218**	**660.9218**	**0.0324**		**661.7328**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Paving - 2023

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	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
Worker	0.0206	0.0148	0.1993	5.6000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		56.8412	56.8412	1.5300e-003	1.4800e-003	57.3203
Total	**0.0206**	**0.0148**	**0.1993**	**5.6000e-004**	**0.0671**	**4.0000e-004**	**0.0675**	**0.0178**	**3.7000e-004**	**0.0182**		**56.8412**	**56.8412**	**1.5300e-003**	**1.4800e-003**	**57.3203**

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	0.3719	3.0290	3.9566	7.1100e-003		0.1456	0.1456		0.1456	0.1456	0.0000	660.9218	660.9218	0.0324		661.7328
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3719**	**3.0290**	**3.9566**	**7.1100e-003**		**0.1456**	**0.1456**		**0.1456**	**0.1456**	**0.0000**	**660.9218**	**660.9218**	**0.0324**		**661.7328**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Paving - 2023

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	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
Worker	0.0206	0.0148	0.1993	5.6000e-004	0.0671	4.0000e-004	0.0675	0.0178	3.7000e-004	0.0182		56.8412	56.8412	1.5300e-003	1.4800e-003	57.3203
Total	**0.0206**	**0.0148**	**0.1993**	**5.6000e-004**	**0.0671**	**4.0000e-004**	**0.0675**	**0.0178**	**3.7000e-004**	**0.0182**		**56.8412**	**56.8412**	**1.5300e-003**	**1.4800e-003**	**57.3203**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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	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

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		
Other Non-Asphalt Surfaces	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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	16.60	8.40	6.90	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	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Other Non-Asphalt Surfaces	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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

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
Other Non-Asphalt Surfaces	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	2.3900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
Unmitigated	2.3900e-003	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
Total	**2.3900e-003**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.2000e-004**	**3.2000e-004**	**0.0000**		**3.4000e-004**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.3800e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		3.2000e-004	3.2000e-004	0.0000		3.4000e-004
Total	**2.3900e-003**	**0.0000**	**1.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**3.2000e-004**	**3.2000e-004**	**0.0000**		**3.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Cal Poly Pomona CLA Renovation Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.99	Acre	0.99	43,124.40	0
Other Non-Asphalt Surfaces	0.45	1000sqft	0.01	450.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPP CLA Renovation Project. Modeling construction only

Land Use - "City Park" use as surrogate land use and added non-asphalt paved surface for walkways

Construction Phase - Adjusted schedule based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Off-road Equipment - Adjusted equipment based on campus input

Grading - 3,500 cubic yards of fill

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Demolition - 90,175 sf of buildings and 100 sf of paved area to be demolished

Trips and VMT - Rounded on-road trips up to even numbers. Vendor trips added to site preparation, grading, and trenching phases to account for water trucks

On-road Fugitive Dust - Default

Architectural Coating - None

Vehicle Trips - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Vehicle Emission Factors - No new trips during operations

Fleet Mix - No new trips during operations

Road Dust - No new trips during operations

Woodstoves - N/A

Consumer Products - Default

Area Coating - N/A

Landscape Equipment - Default

Energy Use - N/A

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation - Compliance with Rule 403 (water exposed area 2x per day)

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	27	0
tblConstructionPhase	NumDays	10.00	120.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	90.00
tblConstructionPhase	NumDays	1.00	30.00
tblConstructionPhase	NumDays	1.00	90.00
tblConstructionPhase	PhaseEndDate	6/14/2022	11/15/2022
tblConstructionPhase	PhaseEndDate	6/17/2022	2/8/2023

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseEndDate	11/11/2022	3/31/2023
tblConstructionPhase	PhaseEndDate	6/15/2022	2/3/2023
tblConstructionPhase	PhaseStartDate	6/16/2022	2/3/2023
tblConstructionPhase	PhaseStartDate	11/5/2022	3/20/2023
tblConstructionPhase	PhaseStartDate	6/15/2022	10/1/2022
tblGrading	MaterialImported	0.00	3,500.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	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	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	OutdoorWaterUseRate	1,179,566.54	1,191,481.35

2.0 Emissions Summary

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2022	0.1278	1.2932	1.0541	2.0700e-003	0.0845	0.0605	0.1450	0.0137	0.0564	0.0700	0.0000	182.8191	182.8191	0.0437	2.4700e-003	184.6471
2023	0.0214	0.2382	0.2317	5.3000e-004	0.0329	9.5100e-003	0.0424	4.8300e-003	8.8200e-003	0.0136	0.0000	48.3538	48.3538	0.0103	2.2100e-003	49.2684
Maximum	**0.1278**	**1.2932**	**1.0541**	**2.0700e-003**	**0.0845**	**0.0605**	**0.1450**	**0.0137**	**0.0564**	**0.0700**	**0.0000**	**182.8191**	**182.8191**	**0.0437**	**2.4700e-003**	**184.6471**

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					
2022	0.1278	1.2932	1.0541	2.0700e-003	0.0470	0.0605	0.1075	8.5400e-003	0.0564	0.0649	0.0000	182.8189	182.8189	0.0437	2.4700e-003	184.6469
2023	0.0214	0.2382	0.2317	5.3000e-004	0.0191	9.5100e-003	0.0286	3.3300e-003	8.8200e-003	0.0122	0.0000	48.3537	48.3537	0.0103	2.2100e-003	49.2683
Maximum	**0.1278**	**1.2932**	**1.0541**	**2.0700e-003**	**0.0470**	**0.0605**	**0.1075**	**8.5400e-003**	**0.0564**	**0.0649**	**0.0000**	**182.8189**	**182.8189**	**0.0437**	**2.4700e-003**	**184.6469**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	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**	**43.75**	**0.00**	**27.41**	**35.80**	**0.00**	**7.89**	**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	**6-1-2022**	**8-31-2022**	0.6238	0.6238
2	**9-1-2022**	**11-30-2022**	0.6977	0.6977
3	**12-1-2022**	**2-28-2023**	0.2967	0.2967
4	**3-1-2023**	**5-31-2023**	0.0552	0.0552
		Highest	0.6977	0.6977

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	4.4000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
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	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	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2.3476	2.3476	2.0000e-004	2.0000e-005	2.3597
Total	**4.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0183**	**2.3476**	**2.3659**	**1.2800e-003**	**2.0000e-005**	**2.4050**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

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	4.4000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
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	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	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2.3476	2.3476	2.0000e-004	2.0000e-005	2.3597
Total	**4.4000e-004**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0183**	**2.3476**	**2.3659**	**1.2800e-003**	**2.0000e-005**	**2.4050**

	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	Demolition	6/1/2022	11/15/2022	5	120	
2	Site Preparation	Site Preparation	10/1/2022	2/3/2023	5	90	
3	Landscaping	Site Preparation	2/20/2023	3/31/2023	5	30	

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Site Renovation	Site Preparation	11/1/2022	3/6/2023	5	90	
5	Grading	Grading	2/3/2023	2/8/2023	5	4	
6	Trenching and Utilities	Trenching	1/30/2023	2/10/2023	5	10	
7	Paving	Paving	3/20/2023	3/31/2023	5	10	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 2

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Landscaping	Graders	0	8.00	187	0.41
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Site Renovation	Graders	0	8.00	187	0.41
Landscaping	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Site Renovation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trenching and Utilities	Plate Compactors	1	8.00	8	0.43
Trenching and Utilities	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching and Utilities	Trenchers	1	8.00	78	0.50
Paving	Pumps	1	8.00	84	0.74

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	5	14.00	0.00	411.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	6.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	2.00	438.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscaping	2	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Renovation	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching and Utilities	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

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					0.0444	0.0000	0.0444	6.7300e-003	0.0000	6.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1013	0.9973	0.8376	1.4500e-003		0.0503	0.0503		0.0470	0.0470	0.0000	126.4661	126.4661	0.0322	0.0000	127.2718
Total	**0.1013**	**0.9973**	**0.8376**	**1.4500e-003**	**0.0444**	**0.0503**	**0.0947**	**6.7300e-003**	**0.0470**	**0.0537**	**0.0000**	**126.4661**	**126.4661**	**0.0322**	**0.0000**	**127.2718**

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	9.5000e-004	0.0364	8.1000e-003	1.3000e-004	3.5400e-003	2.6000e-004	3.7900e-003	9.7000e-004	2.5000e-004	1.2200e-003	0.0000	12.6930	12.6930	6.7000e-004	2.0100e-003	13.3100
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	2.8800e-003	2.4000e-003	0.0311	8.0000e-005	9.2000e-003	6.0000e-005	9.2600e-003	2.4400e-003	6.0000e-005	2.5000e-003	0.0000	7.5704	7.5704	2.2000e-004	2.1000e-004	7.6375
Total	**3.8300e-003**	**0.0388**	**0.0392**	**2.1000e-004**	**0.0127**	**3.2000e-004**	**0.0131**	**3.4100e-003**	**3.1000e-004**	**3.7200e-003**	**0.0000**	**20.2635**	**20.2635**	**8.9000e-004**	**2.2200e-003**	**20.9475**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2022

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					0.0200	0.0000	0.0200	3.0300e-003	0.0000	3.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1013	0.9973	0.8376	1.4500e-003		0.0503	0.0503		0.0470	0.0470	0.0000	126.4660	126.4660	0.0322	0.0000	127.2717
Total	**0.1013**	**0.9973**	**0.8376**	**1.4500e-003**	**0.0200**	**0.0503**	**0.0703**	**3.0300e-003**	**0.0470**	**0.0500**	**0.0000**	**126.4660**	**126.4660**	**0.0322**	**0.0000**	**127.2717**

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	9.5000e-004	0.0364	8.1000e-003	1.3000e-004	3.5400e-003	2.6000e-004	3.7900e-003	9.7000e-004	2.5000e-004	1.2200e-003	0.0000	12.6930	12.6930	6.7000e-004	2.0100e-003	13.3100
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	2.8800e-003	2.4000e-003	0.0311	8.0000e-005	9.2000e-003	6.0000e-005	9.2600e-003	2.4400e-003	6.0000e-005	2.5000e-003	0.0000	7.5704	7.5704	2.2000e-004	2.1000e-004	7.6375
Total	**3.8300e-003**	**0.0388**	**0.0392**	**2.1000e-004**	**0.0127**	**3.2000e-004**	**0.0131**	**3.4100e-003**	**3.1000e-004**	**3.7200e-003**	**0.0000**	**20.2635**	**20.2635**	**8.9000e-004**	**2.2200e-003**	**20.9475**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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					0.0239	0.0000	0.0239	2.5800e-003	0.0000	2.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.2253	0.1287	3.2000e-004		8.3600e-003	8.3600e-003		7.6900e-003	7.6900e-003	0.0000	27.7887	27.7887	8.9900e-003	0.0000	28.0134
Total	**0.0188**	**0.2253**	**0.1287**	**3.2000e-004**	**0.0239**	**8.3600e-003**	**0.0322**	**2.5800e-003**	**7.6900e-003**	**0.0103**	**0.0000**	**27.7887**	**27.7887**	**8.9900e-003**	**0.0000**	**28.0134**

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	1.3000e-004	3.3400e-003	1.1100e-003	1.0000e-005	4.1000e-004	3.0000e-005	4.4000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	1.2412	1.2412	4.0000e-005	1.8000e-004	1.2956
Worker	6.7000e-004	5.6000e-004	7.2300e-003	2.0000e-005	2.1400e-003	1.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.7574	1.7574	5.0000e-005	5.0000e-005	1.7730
Total	**8.0000e-004**	**3.9000e-003**	**8.3400e-003**	**3.0000e-005**	**2.5500e-003**	**4.0000e-005**	**2.5900e-003**	**6.9000e-004**	**4.0000e-005**	**7.3000e-004**	**0.0000**	**2.9987**	**2.9987**	**9.0000e-005**	**2.3000e-004**	**3.0686**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2022

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					0.0107	0.0000	0.0107	1.1600e-003	0.0000	1.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.2253	0.1287	3.2000e-004		8.3600e-003	8.3600e-003		7.6900e-003	7.6900e-003	0.0000	27.7887	27.7887	8.9900e-003	0.0000	28.0134
Total	**0.0188**	**0.2253**	**0.1287**	**3.2000e-004**	**0.0107**	**8.3600e-003**	**0.0191**	**1.1600e-003**	**7.6900e-003**	**8.8500e-003**	**0.0000**	**27.7887**	**27.7887**	**8.9900e-003**	**0.0000**	**28.0134**

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	1.3000e-004	3.3400e-003	1.1100e-003	1.0000e-005	4.1000e-004	3.0000e-005	4.4000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	1.2412	1.2412	4.0000e-005	1.8000e-004	1.2956
Worker	6.7000e-004	5.6000e-004	7.2300e-003	2.0000e-005	2.1400e-003	1.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.7574	1.7574	5.0000e-005	5.0000e-005	1.7730
Total	**8.0000e-004**	**3.9000e-003**	**8.3400e-003**	**3.0000e-005**	**2.5500e-003**	**4.0000e-005**	**2.5900e-003**	**6.9000e-004**	**4.0000e-005**	**7.3000e-004**	**0.0000**	**2.9987**	**2.9987**	**9.0000e-005**	**2.3000e-004**	**3.0686**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					0.0239	0.0000	0.0239	2.5800e-003	0.0000	2.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6900e-003	0.0774	0.0491	1.2000e-004		2.8300e-003	2.8300e-003		2.6100e-003	2.6100e-003	0.0000	10.6870	10.6870	3.4600e-003	0.0000	10.7734
Total	**6.6900e-003**	**0.0774**	**0.0491**	**1.2000e-004**	**0.0239**	**2.8300e-003**	**0.0267**	**2.5800e-003**	**2.6100e-003**	**5.1900e-003**	**0.0000**	**10.6870**	**10.6870**	**3.4600e-003**	**0.0000**	**10.7734**

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	3.0000e-005	1.0100e-003	3.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.4546	0.4546	2.0000e-005	7.0000e-005	0.4744
Worker	2.4000e-004	1.9000e-004	2.5600e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6542	0.6542	2.0000e-005	2.0000e-005	0.6597
Total	**2.7000e-004**	**1.2000e-003**	**2.9400e-003**	**1.0000e-005**	**9.8000e-004**	**1.0000e-005**	**9.9000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**1.1087**	**1.1087**	**4.0000e-005**	**9.0000e-005**	**1.1341**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					0.0107	0.0000	0.0107	1.1600e-003	0.0000	1.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6900e-003	0.0774	0.0491	1.2000e-004		2.8300e-003	2.8300e-003		2.6100e-003	2.6100e-003	0.0000	10.6870	10.6870	3.4600e-003	0.0000	10.7734
Total	**6.6900e-003**	**0.0774**	**0.0491**	**1.2000e-004**	**0.0107**	**2.8300e-003**	**0.0136**	**1.1600e-003**	**2.6100e-003**	**3.7700e-003**	**0.0000**	**10.6870**	**10.6870**	**3.4600e-003**	**0.0000**	**10.7734**

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	3.0000e-005	1.0100e-003	3.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.4546	0.4546	2.0000e-005	7.0000e-005	0.4744
Worker	2.4000e-004	1.9000e-004	2.5600e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.6542	0.6542	2.0000e-005	2.0000e-005	0.6597
Total	**2.7000e-004**	**1.2000e-003**	**2.9400e-003**	**1.0000e-005**	**9.8000e-004**	**1.0000e-005**	**9.9000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**1.1087**	**1.1087**	**4.0000e-005**	**9.0000e-005**	**1.1341**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Landscaping - 2023

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5400e-003	0.0461	0.0669	9.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	8.2076	8.2076	2.6500e-003	0.0000	8.2739
Total	**4.5400e-003**	**0.0461**	**0.0669**	**9.0000e-005**	**0.0000**	**2.2700e-003**	**2.2700e-003**	**0.0000**	**2.0900e-003**	**2.0900e-003**	**0.0000**	**8.2076**	**8.2076**	**2.6500e-003**	**0.0000**	**8.2739**

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	2.9000e-004	2.3000e-004	3.0700e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.7850	0.7850	2.0000e-005	2.0000e-005	0.7916
Total	**2.9000e-004**	**2.3000e-004**	**3.0700e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.7850**	**0.7850**	**2.0000e-005**	**2.0000e-005**	**0.7916**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Landscaping - 2023

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5400e-003	0.0461	0.0669	9.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	8.2076	8.2076	2.6500e-003	0.0000	8.2739
Total	**4.5400e-003**	**0.0461**	**0.0669**	**9.0000e-005**	**0.0000**	**2.2700e-003**	**2.2700e-003**	**0.0000**	**2.0900e-003**	**2.0900e-003**	**0.0000**	**8.2076**	**8.2076**	**2.6500e-003**	**0.0000**	**8.2739**

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	2.9000e-004	2.3000e-004	3.0700e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.7850	0.7850	2.0000e-005	2.0000e-005	0.7916
Total	**2.9000e-004**	**2.3000e-004**	**3.0700e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.7850**	**0.7850**	**2.0000e-005**	**2.0000e-005**	**0.7916**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2022

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7200e-003	0.0277	0.0369	5.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003	0.0000	4.5091	4.5091	1.4600e-003	0.0000	4.5456
Total	**2.7200e-003**	**0.0277**	**0.0369**	**5.0000e-005**	**0.0000**	**1.4900e-003**	**1.4900e-003**	**0.0000**	**1.3700e-003**	**1.3700e-003**	**0.0000**	**4.5091**	**4.5091**	**1.4600e-003**	**0.0000**	**4.5456**

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	3.0000e-004	2.5000e-004	3.2600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.7931	0.7931	2.0000e-005	2.0000e-005	0.8001
Total	**3.0000e-004**	**2.5000e-004**	**3.2600e-003**	**1.0000e-005**	**9.6000e-004**	**1.0000e-005**	**9.7000e-004**	**2.6000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.7931**	**0.7931**	**2.0000e-005**	**2.0000e-005**	**0.8001**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2022

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7200e-003	0.0277	0.0369	5.0000e-005		1.4900e-003	1.4900e-003		1.3700e-003	1.3700e-003	0.0000	4.5091	4.5091	1.4600e-003	0.0000	4.5456
Total	**2.7200e-003**	**0.0277**	**0.0369**	**5.0000e-005**	**0.0000**	**1.4900e-003**	**1.4900e-003**	**0.0000**	**1.3700e-003**	**1.3700e-003**	**0.0000**	**4.5091**	**4.5091**	**1.4600e-003**	**0.0000**	**4.5456**

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	3.0000e-004	2.5000e-004	3.2600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.7931	0.7931	2.0000e-005	2.0000e-005	0.8001
Total	**3.0000e-004**	**2.5000e-004**	**3.2600e-003**	**1.0000e-005**	**9.6000e-004**	**1.0000e-005**	**9.7000e-004**	**2.6000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.7931**	**0.7931**	**2.0000e-005**	**2.0000e-005**	**0.8001**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2023

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6100e-003	0.0265	0.0385	5.0000e-005		1.3100e-003	1.3100e-003		1.2000e-003	1.2000e-003	0.0000	4.7194	4.7194	1.5300e-003	0.0000	4.7575
Total	**2.6100e-003**	**0.0265**	**0.0385**	**5.0000e-005**	**0.0000**	**1.3100e-003**	**1.3100e-003**	**0.0000**	**1.2000e-003**	**1.2000e-003**	**0.0000**	**4.7194**	**4.7194**	**1.5300e-003**	**0.0000**	**4.7575**

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	2.9000e-004	2.3000e-004	3.1300e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8025	0.8025	2.0000e-005	2.0000e-005	0.8092
Total	**2.9000e-004**	**2.3000e-004**	**3.1300e-003**	**1.0000e-005**	**1.0100e-003**	**1.0000e-005**	**1.0100e-003**	**2.7000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8025**	**0.8025**	**2.0000e-005**	**2.0000e-005**	**0.8092**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Site Renovation - 2023

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6100e-003	0.0265	0.0385	5.0000e-005		1.3100e-003	1.3100e-003		1.2000e-003	1.2000e-003	0.0000	4.7194	4.7194	1.5300e-003	0.0000	4.7575
Total	**2.6100e-003**	**0.0265**	**0.0385**	**5.0000e-005**	**0.0000**	**1.3100e-003**	**1.3100e-003**	**0.0000**	**1.2000e-003**	**1.2000e-003**	**0.0000**	**4.7194**	**4.7194**	**1.5300e-003**	**0.0000**	**4.7575**

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	2.9000e-004	2.3000e-004	3.1300e-003	1.0000e-005	1.0100e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8025	0.8025	2.0000e-005	2.0000e-005	0.8092
Total	**2.9000e-004**	**2.3000e-004**	**3.1300e-003**	**1.0000e-005**	**1.0100e-003**	**1.0000e-005**	**1.0100e-003**	**2.7000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8025**	**0.8025**	**2.0000e-005**	**2.0000e-005**	**0.8092**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Grading - 2023

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					1.2600e-003	0.0000	1.2600e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3700e-003	0.0155	0.0123	3.0000e-005		6.0000e-004	6.0000e-004		5.6000e-004	5.6000e-004	0.0000	2.2571	2.2571	7.3000e-004	0.0000	2.2753
Total	**1.3700e-003**	**0.0155**	**0.0123**	**3.0000e-005**	**1.2600e-003**	**6.0000e-004**	**1.8600e-003**	**1.4000e-004**	**5.6000e-004**	**7.0000e-004**	**0.0000**	**2.2571**	**2.2571**	**7.3000e-004**	**0.0000**	**2.2753**

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	4.6000e-004	0.0301	7.6700e-003	1.3000e-004	3.7700e-003	1.8000e-004	3.9500e-003	1.0300e-003	1.7000e-004	1.2100e-003	0.0000	12.7736	12.7736	7.0000e-004	2.0300e-003	13.3957
Vendor	0.0000	1.6000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0727	0.0727	0.0000	1.0000e-005	0.0759
Worker	5.0000e-005	4.0000e-005	5.5000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1396	0.1396	0.0000	0.0000	0.1407
Total	**5.1000e-004**	**0.0303**	**8.2800e-003**	**1.3000e-004**	**3.9800e-003**	**1.8000e-004**	**4.1600e-003**	**1.0900e-003**	**1.7000e-004**	**1.2700e-003**	**0.0000**	**12.9859**	**12.9859**	**7.0000e-004**	**2.0400e-003**	**13.6123**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Grading - 2023

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					5.7000e-004	0.0000	5.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3700e-003	0.0155	0.0123	3.0000e-005		6.0000e-004	6.0000e-004		5.6000e-004	5.6000e-004	0.0000	2.2571	2.2571	7.3000e-004	0.0000	2.2753
Total	**1.3700e-003**	**0.0155**	**0.0123**	**3.0000e-005**	**5.7000e-004**	**6.0000e-004**	**1.1700e-003**	**7.0000e-005**	**5.6000e-004**	**6.3000e-004**	**0.0000**	**2.2571**	**2.2571**	**7.3000e-004**	**0.0000**	**2.2753**

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	4.6000e-004	0.0301	7.6700e-003	1.3000e-004	3.7700e-003	1.8000e-004	3.9500e-003	1.0300e-003	1.7000e-004	1.2100e-003	0.0000	12.7736	12.7736	7.0000e-004	2.0300e-003	13.3957
Vendor	0.0000	1.6000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0727	0.0727	0.0000	1.0000e-005	0.0759
Worker	5.0000e-005	4.0000e-005	5.5000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1396	0.1396	0.0000	0.0000	0.1407
Total	**5.1000e-004**	**0.0303**	**8.2800e-003**	**1.3000e-004**	**3.9800e-003**	**1.8000e-004**	**4.1600e-003**	**1.0900e-003**	**1.7000e-004**	**1.2700e-003**	**0.0000**	**12.9859**	**12.9859**	**7.0000e-004**	**2.0400e-003**	**13.6123**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Trenching and Utilities - 2023

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	2.7000e-003	0.0252	0.0252	3.0000e-005		1.5500e-003	1.5500e-003		1.4300e-003	1.4300e-003	0.0000	3.0104	3.0104	9.4000e-004	0.0000	3.0338
Total	**2.7000e-003**	**0.0252**	**0.0252**	**3.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**3.0104**	**3.0104**	**9.4000e-004**	**0.0000**	**3.0338**

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	1.0000e-005	4.0000e-004	1.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1818	0.1818	1.0000e-005	3.0000e-005	0.1898
Worker	1.3000e-004	1.0000e-004	1.3600e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3489	0.3489	1.0000e-005	1.0000e-005	0.3518
Total	**1.4000e-004**	**5.0000e-004**	**1.5100e-003**	**0.0000**	**5.0000e-004**	**0.0000**	**5.0000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.5307**	**0.5307**	**2.0000e-005**	**4.0000e-005**	**0.5416**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Trenching and Utilities - 2023

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	2.7000e-003	0.0252	0.0252	3.0000e-005		1.5500e-003	1.5500e-003		1.4300e-003	1.4300e-003	0.0000	3.0104	3.0104	9.4000e-004	0.0000	3.0338
Total	**2.7000e-003**	**0.0252**	**0.0252**	**3.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**3.0104**	**3.0104**	**9.4000e-004**	**0.0000**	**3.0338**

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	1.0000e-005	4.0000e-004	1.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1818	0.1818	1.0000e-005	3.0000e-005	0.1898
Worker	1.3000e-004	1.0000e-004	1.3600e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3489	0.3489	1.0000e-005	1.0000e-005	0.3518
Total	**1.4000e-004**	**5.0000e-004**	**1.5100e-003**	**0.0000**	**5.0000e-004**	**0.0000**	**5.0000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.5307**	**0.5307**	**2.0000e-005**	**4.0000e-005**	**0.5416**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Paving - 2023

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	1.8600e-003	0.0151	0.0198	4.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.9979	2.9979	1.5000e-004	0.0000	3.0016
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8600e-003**	**0.0151**	**0.0198**	**4.0000e-005**		**7.3000e-004**	**7.3000e-004**		**7.3000e-004**	**7.3000e-004**	**0.0000**	**2.9979**	**2.9979**	**1.5000e-004**	**0.0000**	**3.0016**

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	1.0000e-004	8.0000e-005	1.0200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2617	0.2617	1.0000e-005	1.0000e-005	0.2639
Total	**1.0000e-004**	**8.0000e-005**	**1.0200e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2617**	**0.2617**	**1.0000e-005**	**1.0000e-005**	**0.2639**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.8 Paving - 2023

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	1.8600e-003	0.0151	0.0198	4.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	2.9979	2.9979	1.5000e-004	0.0000	3.0016
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8600e-003**	**0.0151**	**0.0198**	**4.0000e-005**		**7.3000e-004**	**7.3000e-004**		**7.3000e-004**	**7.3000e-004**	**0.0000**	**2.9979**	**2.9979**	**1.5000e-004**	**0.0000**	**3.0016**

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	1.0000e-004	8.0000e-005	1.0200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2617	0.2617	1.0000e-005	1.0000e-005	0.2639
Total	**1.0000e-004**	**8.0000e-005**	**1.0200e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2617**	**0.2617**	**1.0000e-005**	**1.0000e-005**	**0.2639**

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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		
Other Non-Asphalt Surfaces	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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Other Non-Asphalt Surfaces	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Other Non-Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	4.4000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	4.4000e-004	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**4.3000e-004**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**4.3000e-004**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.3476	2.0000e-004	2.0000e-005	2.3597
Unmitigated	2.3476	2.0000e-004	2.0000e-005	2.3597

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	2.3476	2.0000e-004	2.0000e-005	2.3597
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.3476**	**2.0000e-004**	**2.0000e-005**	**2.3597**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	2.3476	2.0000e-004	2.0000e-005	2.3597
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.3476**	**2.0000e-004**	**2.0000e-005**	**2.3597**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0183	1.0800e-003	0.0000	0.0453
Unmitigated	0.0183	1.0800e-003	0.0000	0.0453

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0453**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0453**

9.0 Operational Offroad

Cal Poly Pomona CLA Renovation Project - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Los Angeles-South Coast County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Renovation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching and Utilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Plate Compactors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Pumps	Diesel	No Change	0	1	No Change	0.00
Trenchers	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	0	No Change	0.00
Rollers	Diesel	No Change	0	0	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	10	No Change	0.00

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Concrete/Industrial Saws	2.14600E-002	1.68070E-001	2.19880E-001	3.80000E-004	9.01000E-003	9.01000E-003	0.00000E+000	3.22594E+001	3.22594E+001	1.76000E-003	0.00000E+000	3.23034E+001
Graders	1.90500E-002	2.38340E-001	8.05000E-002	3.10000E-004	7.62000E-003	7.01000E-003	0.00000E+000	2.73371E+001	2.73371E+001	8.84000E-003	0.00000E+000	2.75581E+001
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Plate Compactors	2.00000E-004	1.26000E-003	1.05000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.56400E-001	1.56400E-001	2.00000E-005	0.00000E+000	1.56800E-001
Pumps	1.64000E-003	1.37600E-002	1.86300E-002	3.00000E-005	6.70000E-004	6.70000E-004	0.00000E+000	2.82604E+000	2.82604E+000	1.30000E-004	0.00000E+000	2.82927E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	5.02300E-002	5.27620E-001	2.14920E-001	5.10000E-004	2.50400E-002	2.30400E-002	0.00000E+000	4.50164E+001	4.50164E+001	1.45600E-002	0.00000E+000	4.53804E+001
Tractors/Loaders/Backhoes	4.81200E-002	4.89270E-001	6.65850E-001	9.30000E-004	2.58500E-002	2.37800E-002	0.00000E+000	8.13844E+001	8.13844E+001	2.63200E-002	0.00000E+000	8.20425E+001
Trenchers	1.74000E-003	1.62500E-002	1.30300E-002	2.00000E-005	1.13000E-003	1.04000E-003	0.00000E+000	1.49157E+000	1.49157E+000	4.80000E-004	0.00000E+000	1.50363E+000

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Concrete/Industrial Saws	2.14600E-002	1.68070E-001	2.19880E-001	3.80000E-004	9.01000E-003	9.01000E-003	0.00000E+000	3.22593E+001	3.22593E+001	1.76000E-003	0.00000E+000	3.23033E+001
Graders	1.90500E-002	2.38340E-001	8.05000E-002	3.10000E-004	7.62000E-003	7.01000E-003	0.00000E+000	2.73370E+001	2.73370E+001	8.84000E-003	0.00000E+000	2.75581E+001
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Plate Compactors	2.00000E-004	1.26000E-003	1.05000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.56400E-001	1.56400E-001	2.00000E-005	0.00000E+000	1.56800E-001
Pumps	1.64000E-003	1.37600E-002	1.86300E-002	3.00000E-005	6.70000E-004	6.70000E-004	0.00000E+000	2.82603E+000	2.82603E+000	1.30000E-004	0.00000E+000	2.82927E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	5.02300E-002	5.27620E-001	2.14920E-001	5.10000E-004	2.50400E-002	2.30400E-002	0.00000E+000	4.50164E+001	4.50164E+001	1.45600E-002	0.00000E+000	4.53804E+001
Tractors/Loaders/Backhoes	4.81200E-002	4.89270E-001	6.65850E-001	9.30000E-004	2.58500E-002	2.37800E-002	0.00000E+000	8.13843E+001	8.13843E+001	2.63200E-002	0.00000E+000	8.20424E+001
Trenchers	1.74000E-003	1.62500E-002	1.30300E-002	2.00000E-005	1.13000E-003	1.04000E-003	0.00000E+000	1.49157E+000	1.49157E+000	4.80000E-004	0.00000E+000	1.50363E+000

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Percent Reduction											
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23995E-006	1.23995E-006	0.00000E+000	0.00000E+000	1.23826E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.09741E-006	1.09741E-006	0.00000E+000	0.00000E+000	1.45148E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Plate Compactors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pumps	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.53852E-006	3.53852E-006	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11071E-006	1.11071E-006	0.00000E+000	0.00000E+000	1.10180E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22874E-006	1.22874E-006	0.00000E+000	0.00000E+000	1.21888E-006
Trenchers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Demolition	Fugitive Dust	0.04	0.01	0.02	0.00	0.55	0.55
Demolition	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Grading	Fugitive Dust	0.00	0.00	0.00	0.00	0.55	0.50
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.05	0.01	0.02	0.00	0.55	0.55
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Renovation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Renovation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Trenching and Utilities	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Trenching and Utilities	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	50.00
No	Use Low VOC Paint (Residential Exterior)	50.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Cal Poly Pomona CLA Renovation Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Appendix B
Noise Technical Memorandum

DUDEK
1102 R STREET
SACRAMENTO, CALIFORNIA 95811
T 916.443.8335 F 916.443.5113

MEMORANDUM

To:	The Board of Trustees of The California State University
From:	Mike Greene, Acoustical Specialist, Dudek
Subject:	Cal Poly Pomona – Classroom, Laboratory, Administration Tower Demolition and Building Renovation Project - Noise Technical Memorandum
Date:	March 4, 2022
cc:	Caitlin Munson, Project Manager, Dudek
Attachment(s):	Attachment A – Field Noise Measurement Data Attachment B – Construction Noise Input/Output Data

This memorandum estimates noise impacts from the Classroom, Laboratory, Administration (CLA) Tower Demolition and Building Renovation Project (project) in accordance with the California Environmental Quality Act (CEQA) Guidelines.

The contents and organization of this memorandum are as follows: Project Description: General Analysis and Methodology; Existing Conditions; Noise Impacts Assessment; Conclusions; and References Cited.

1 Project Description

The project site is located on the 1,438-acre Cal Poly Pomona campus at 3801 West Temple Avenue. The campus lies within three separate governmental jurisdictional boundaries: the City of Pomona, the City of Walnut, and unincorporated Los Angeles County. Other nearby cities include Glendora, San Dimas, La Verne, Claremont, Diamond Bar, Industry, Covina, and West Covina. The campus is divided into two portions: Campus North, which includes the main campus, and Campus South, which includes agricultural properties and the Lanterman Development Center. The project site is approximately one acre and encompasses the existing Classroom, Laboratory, and Administration (CLA) Building complex (Building #98 on the campus master plan map), centrally located within Campus North. The CLA Building is located north of the Art Department and Engineering Annex (Building #13) and the Student Services Building (Building #121); east of the Engineering Laboratories (Building #17); south of the College of Business Administration (Building #163) and Rose Garden; and west of Voorhis Park.

The project would begin with the demolition of the southwestern portion of the building complex, which includes the CLA tower, through dismantling/deconstruction. The demolition footprint would be graded and a new lower-level exterior wall, stairs, ramps, guardrails, and walkway on Building 3 would be constructed. The project would involve the reconfiguration of the Maximizing Engineering Potential (MEP) Center within Building 3 and reconstructed utility connections. The project would conclude with the creation of a paved ADA-accessible path and

other hardscape, and the construction of a Japanese Garden Extension/addition of a Discovery Garden, which would expand the existing Japanese Garden that currently borders the CLA Building to the north and west to occupy the original footprints of Buildings 1 and 2. The majority of the Japanese Garden would remain as is, but the eastern perimeter would be modified to accommodate the new Discovery Garden.

Building 3 of the CLA building complex currently operates as classrooms. Buildings 1 and 2 used to provide student services facilities; however, this portion of the CLA building complex is no longer in operation and those services have been relocated to the new Student Services Building #121 to the south (Cal Poly Pomona 2019). Building 3 would continue to house classrooms, as at present, upon project completion.

The Discovery Garden is proposed to include the following program elements:

- decomposed granite study nooks with seating
- amphitheater with tiered seating
- screen/projection wall
- café/pavilion
- plazas with seating and umbrellas
- movable platform seating
- chalkboard wall
- maker space with farm-style table and hoist beam arms

Landscaped areas would connect the program elements described above. The Japanese Garden, including existing trees and the pond, would remain as is. New landscaping including shade trees and lawns would be planted in the Discovery Garden area.

Construction would commence in June 2022 and last approximately 9 months. The anticipated construction schedule is detailed below:

- Demolition (120 days)
- Site preparation (90 days)
- Grading (4 days)
- Trenching and utilities (10 days)
- Site Renovation (90 days)
- Landscaping (30 days)
- Paving (10 days)

The mix of construction equipment used for estimating the construction noise from the project is based on applicant-provided information and California Emissions Estimator Model default values as shown in Table 1.

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Demolition	14	0	411	Concrete/ Industrial Saws	1	8
				Rubber Tired Dozers	1	8
				Tractors/ Loaders/ Backhoes	3	8
Site Preparation	6	2	0	Graders	1	8
				Tractors/ Loaders/ Backhoes	1	8
Grading	8	2	438	Graders	1	8
				Tractors/ Loaders/ Backhoes	2	8
Trenching/ Utilities	8	2	0	Plate Compactors	1	8
				Tractors/ Loaders/ Backhoes	1	8
				Trenchers	1	8
Landscaping	6	0	0	Tractors/ Loaders/ Backhoes	2	8
Site Renovation	4	0	0	Tractors/ Loaders/ Backhoes	1	6
Paving	6	0	0	Pumps	1	8
				Cement and Mortar Mixer	1	6

Source: Dudek 2022. Cal Poly Pomona – Classroom, Laboratory, Administration Tower Demolition and Building Renovation Project - Air Quality and Greenhouse Gas Emissions Technical Memorandum. Dudek, February 2022.

Once operational, the renovated Building 3 would continue to house classrooms. The Discovery Garden area would provide recreational space for students. The proposed project would not increase the number of classrooms and would not result in enrollment growth or require or generate additional faculty.

2 General Analysis and Methodology

Ambient noise measurements were conducted to quantify the existing daytime noise environment at four sites (described in Section 3.3). Noise and vibration levels resulting from the proposed construction activities have been modeled using guidance and methodology prepared by the Federal Transit Administration (FTA 2018) and the Federal Highway Administration (FHWA 2008). The noise impact assessment utilizes criteria established by the County of Los Angeles. The assumptions regarding hours of construction activities, construction equipment, duration of construction activities, etc. are based on information provided by the applicant or default model

assumptions if project specifics were unavailable; these assumptions are consistent with those used for the project's air quality/greenhouse gas emissions analysis.

3 Existing Conditions

3.1 Noise and Vibration Concepts

Noise

Noise is defined as unwanted sound. Sound may be described in terms of level or amplitude (measured in decibels (dB)), frequency or pitch (measured in hertz (Hz) or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the amplitude of sound is the decibel (dB). Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear. Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise, on a community. These descriptors include the equivalent noise level over a given period (L_{eq}), the statistical sound level (L_n), the day–night average noise level (L_{dn}), and the community noise equivalent level (CNEL). Each of these descriptors uses units of dBA. Table 2 provides examples of A-weighted noise levels from common sounds. In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving of the sound level.

Table 2. Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
—	110	Rock band
Jet flyover at 300 meters (1,000 feet)	100	—
Gas lawn mower at 1 meter (3 feet)	90	—
Diesel truck at 15 meters (50 feet), at 80 kilometers per hour (50 mph)	80	Food blender at 1 meter (3 feet) Garbage disposal at 1 meter (3 feet)
Noisy urban area, daytime gas lawn mower at 30 meters (100 feet)	70	Vacuum cleaner at 3 meters (10 feet)
Commercial area Heavy traffic at 90 meters (300 feet)	60	Normal speech at 1 meter (3 feet)
Quiet urban daytime	50	Large business office Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural night time	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 2013

L_{eq} is a sound energy level averaged over a specified period (typically no less than 15 minutes for environmental studies). L_{eq} is a single numerical value that represents the amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour L_{eq} measurement would represent the average amount of energy contained in all the noise that occurred in that hour. L_{eq} is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors. L_{max} is the greatest sound level measured during a designated time interval or event.

Unlike the L_{eq} metrics, L_{dn} and CNEL metrics always represent 24-hour periods, usually on an annualized basis. L_{dn} and CNEL also differ from L_{eq} because they apply a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). "Time weighted" refers to the fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime (10:00 p.m.–7:00 a.m.) noise is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., thus eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5 dB to 1 dB and as such, are often treated as equivalent to one another.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earthmoving equipment.

Several different methods are used to quantify vibration. Peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square amplitude is most frequently used to describe the effect of vibration on the human body and is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure root mean square. The decibel notation acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of vibration can damage fragile buildings or interfere with equipment that is highly sensitive to vibration (e.g., electron microscopes). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

3.2 Regulatory Framework

The proposed project is located within the County of Los Angeles. Although the California State University and Cal Poly Pomona are not subject to local plans, policies, and guidelines related to noise, this analysis utilizes relevant guidance from the County. Relevant noise regulations are discussed below.

Los Angeles County 2035 General Plan – Noise Element

The County of Los Angeles maintains the health and welfare of its residents with respect to noise through nuisance abatement ordinances and land use planning. The County Noise Control Ordinance, Title 12 of the County Code, was adopted by the County Board of Supervisors in 1978 in order to control unnecessary, excessive, and annoying noise and vibration. It declares that County policy was to maintain quiet in those areas that exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values (County of Los Angeles 2015).

On August 14, 2001, the County Board of Supervisors approved an ordinance amending Title 12 of the County Code to prohibit loud, unnecessary, and unusual noise that disturbs the peace and/or quiet of any neighborhood or that causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. Regulations can include requirements for sound barriers, mitigation measures to reduce excessive noise, or the placement and orientation of buildings, and can specify the compatibility of different uses with varying noise levels, as shown in Table (County of Los Angeles 2015).

Table 3. Los Angeles County Exterior Noise Standards

Land Use Zone	Time of Day	One-Hour Average Sound Level (Decibels)
Noise-sensitive area, designated to ensure exceptional quiet	Anytime	45
Residentially zoned properties, per County Code Title 22	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45
Commercially zoned properties, per County Code Title 22	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55
Industrially zoned properties, per County Code Title 22	Anytime	70

Source: County of Los Angeles 2015.

Los Angeles County Noise Control Ordinance

The Los Angeles County Noise Control Ordinance, as amended, identifies exterior noise standards for point noise sources, specific noise restrictions, exemptions, and variances for exterior point and stationary noise sources (County of Los Angeles 1978). Several of these are applicable to the proposed project and are discussed herein.

The County Noise Control Ordinance states that exterior noise levels caused by noise sources shall not exceed the levels identified in Table 3, or the ambient noise level, whichever is greater, when the ambient noise level is determined without the noise source operating. The Noise Ordinance Section 12.08.400 also states that interior

noise levels resulting from outside point or stationary sources within multi-family residential units shall not exceed 45 dB(A) L_{eq} between 7:00 a.m. and 10:00 p.m., and 40 dB(A) L_{eq} between 10:00 p.m. and 7:00 a.m.

The County Noise Ordinance identifies specific restrictions regarding construction noise. The operation of equipment used in construction, drilling, repair, alteration, or demolition work is prohibited between weekday hours of 7:00 p.m. to 7:00 a.m. and anytime on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial property line. The Noise Ordinance further states that the contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in Table 4. All mobile and stationary internal-combustion-powered equipment and machinery are also required to be equipped with suitable exhaust and air-intake silencers in proper working order.

Table 4. Los Angeles County Construction Equipment Noise Restrictions

Time of Day	Single Family Residential – Sound Level (Decibels)	Multi-Family Residential – Sound Level (Decibels)	Commercial/Mixed Use – Sound Level (Decibels)
Mobile Equipment			
Daily, except Sunday and legal holidays, 7 a.m. to 8 p.m.	75	80	85
Daily, 8 p.m. to 7 a.m. and all day Sundays and legal holidays	60	64	70
Stationary Equipment			
Daily, except Sunday and legal holidays, 7 a.m. to 8 p.m.	60	65	70
Daily, 8 p.m. to 7 a.m. and all day Sundays and legal holidays	50	55	60

Source: County of Los Angeles 1978.

The County exempts all vehicles of transportation (with a few exceptions) that operate in a legal manner within the public right-of-way, railway, or air space, or on private property, from the standards of the Noise Ordinance. The County has no adopted ordinance regulating individual motor vehicle noise levels. These are regulated by the State of California.

With respect to groundborne vibration caused by construction activities, Section 12.08.560 of the Noise Control Ordinance governs vibration. It states that operating or permitting the operation of any device that creates vibration that is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 inches per second over the range of 1 to 100 Hz.

3.3 Existing Noise Environment

The primary noise source in the project vicinity is vehicular traffic along Interstate 10, State Route 57/State Route 60, and major arterial roads including Temple Avenue, Valley Boulevard, and South Campus Drive. Noise is also

generated by students and people at various events on campus. The site is not located in proximity to any airports. The closest airport is Brackett Field, located approximately 3 miles northeast of the university. The campus is subject to occasional overflights by helicopters and commercial and general aviation aircraft. However, the campus is not located within the 60 dB CNEL noise contour of any airport and is not subject to aircraft noise in excess of regulatory limits.

The nearest existing noise-sensitive receivers consist of on-campus residence halls located to the north and south of the project site, approximately 625 feet or more away. Existing off-site sensitive receptors include residential neighborhoods located to the north, south and southeast of the university, located over 2,000 feet from the project site. Because of the large distances to the nearest off-site sensitive receptors, the noise analysis focuses on the on-site receptors, which are considerably closer to the project site.

Ambient Noise Levels

Noise measurements were conducted at four representative noise-sensitive receiver locations in the project vicinity to determine the existing noise levels. The measurements were made using a calibrated SoftdB Piccolo integrating sound-level meter equipped with a pre-polarized condenser microphone with pre-amplifier. When equipped with this microphone, the sound-level meter meets the current American National Standards Institute (ANSI) standard for a Type 2 (general use) sound-level meter. The sound-level meter was positioned at a height of approximately 5 feet above the ground during the noise measurements, the microphone was equipped with a windscreen, and the calibration of the noise meter was verified before and after the noise measurements.

The noise measurements were conducted on February 10, 2022. The noise measurement locations are depicted as sites ST1 through ST4 on Figure 2. These sites were selected because of the proximity of adjacent receivers to the project site, to determine the typical daytime ambient noise levels at these noise-sensitive uses. Noise resulted primarily from vehicles along distant and adjacent roads, as well as campus construction activities. The measured average noise levels ranged from approximately 48 dB at Site ST3 to 56 dB at Site ST4. The measured average, maximum and minimum noise levels are provided in Table 5.

Table 5
Measured Ambient Noise Levels (dBA)

Site	Location	Date/ Time	L_{eq} [1]	L_{max} [2]	L_{min} [3]
ST1	Palmitas Residence Hall	2/17/22 9:54 a.m. to 10:09 a.m.	50	65.7	46.4
ST2	Cedritos Residence Hall	2/17/22 10:16 a.m. to 10:31 a.m.	50	65.1	43
ST3	Encinitas Residence Hall	2/17/22 10:25 a.m. to 10:50 a.m.	47.9	60.8	43.2
ST4	Child Care Center	2/17/22 11:07 a.m. to 11:22 a.m.	56.3	68.9	45.5

Source: Attachment A
Notes:
[1] L_{eq} = Equivalent Continuous Sound Level (Time-Average Sound Level)
[2] L_{max} = Maximum Sound Level
[3] L_{max} = Minimum Sound Level

4 Noise Impacts Assessment

4.1 Thresholds of Significance

The significance criteria used to evaluate the project impacts to noise are based on the recommendations provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). For the purposes of this analysis, a significant impact would occur if the Project would result in:

a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

b) *Generation of excessive groundborne vibration or groundborne noise levels?*

c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

On-Site Construction Noise Threshold

Based on guidelines from the County of Los Angeles, the project's on-site construction noise impact would be considered significant if construction noise levels would exceed 65 dBA (the multi-family residential standard) between the hours of 7 a.m. to 8 p.m. Monday through Saturday. The project construction would not take place after 8 p.m. or before 7 a.m. and would not take place on Sundays or legal holidays.

Operational Noise Thresholds

In addition to applicable County standards and guidelines that would regulate or otherwise manage the project's operational noise impacts, the following criteria are adopted to assess the impacts of the project's operational noise sources:

- Project operations would cause ambient noise levels at noise-sensitive receptors to increase by 3 dBA or more. A change in sound level of 3 dB is barely noticeable.

Groundborne Vibration Thresholds

Based upon Section 12.08.560 of the Noise Control Ordinance, groundborne vibration associated with the project would be considered significant if the stated threshold of 0.01 inches per second is exceeded at a distance of 150 feet.

4.2 Impact Analysis

Threshold a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

On-Site Construction Activities

Construction of the project would occur over an approximate 9-month period (currently anticipated to begin in June 2022). Construction would occur in phases, including demolition, site preparation, grading, trenching and utilities, landscaping, site renovation, and paving.

The types of construction equipment that would be used to construct the project include standard equipment that would be employed for any routine construction project of this scale, such as graders, tractors, loaders, cranes, rubber-tired bulldozers, generators, and paving equipment. Construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, blasting equipment) would not be necessary for demolition of the existing buildings, or construction of the proposed project.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time each piece is in operation, condition of each piece of equipment, and number of pieces that would operate on the site. The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is shown in Table 6. The noise values represent maximum noise generation, or full- power operation of the equipment. As an example, a loader and two dozers, all operating at full power and relatively close together, would generate a maximum sound level of approximately 90 dBA at 50 feet from their operations. As one increases the distance between equipment or separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together. In addition, typical operating cycles may involve 2 minutes of full-power operation, followed by 3 or 4 minutes at lower levels. The average noise level during construction activities is generally lower (typical levels of approximately 88 dBA L_{eq} at a distance of 50 feet), since maximum noise generation may only occur up to 50% of the time. Noise levels from construction operations decrease at a rate of approximately 6 dBA per doubling of distance from the source.

Table 6. Typical Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Air compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, mobile	83
Dozer	85
Generator	81
Grader	85

Table 6. Typical Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Impact wrench	85
Jackhammer	88
Loader	85
Paver	89
Pneumatic tool	85
Pump	76
Roller	74
Saw	76
Truck	88

Source: FTA 2018.

The nearest point of construction activities to the closest noise-sensitive receivers (Cedritos Residence Hall) would be approximately 625 feet. Other nearby on-site noise-sensitive receivers would be located further away at varying distances.

The Federal Highway Administration's Roadway Construction Noise Model (RCNM),[1] was used to estimate construction noise levels at these noise-sensitive land uses. Although the model was funded and promulgated by the FHWA, the RCNM is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are also used for other project types. Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of hours the equipment typically works per day), and the distance from the noise-sensitive receiver.

The noise levels from the proposed construction activities are summarized in Table 7. The complete set of RCNM input and output data for construction noise is provided in Attachment B. As shown, at the nearest noise-sensitive land use (Cedritos Residence Hall), located to the north of the project site, noise levels would range from approximately 48 dBA L_{eq} during the site renovation phase to 59 dBA L_{eq} during the demolition phase. Noise levels at the other, more distant locations, would be lower. Also as shown in Table 7, construction equipment noise would not exceed 65 dBA L_{eq}, and therefore would comply with the County noise standard for construction equipment noise levels.

Table 7. Construction Noise Modeling Summary Results (dBA L_{eq})

Receiver Location (Distance)/ Description	Construction Noise Level by Construction Phase

[1] Federal Highway Administration. Roadway Construction Noise Model (RCNM), Software Version 1.1. U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. December 2008.

	Demolition	*Site Preparation*	*Grading*	*Trenching and Utilities*	*Landscaping*	*Site Renovation*	*Paving*
ST1 Palmitas Residence Hall (as near as 700 feet)	57	54	55	48	52	47	49
ST2 Cedritos Residence Hall (as near as 625 feet)	59	55	57	49	54	48	50
ST3 Encinitas Residence Hall (as near as 800 feet)	56	52	54	47	51	46	48
ST4 Child Care Center (as near as 1,075 feet)	53	50	51	44	48	43	45

Source: Attachment B
Notes: dBA = A-weighted decibels; L_{eq} = equivalent sound level

Off-Site Construction Activities

The project would result in local, short-term increases in roadway noise as a result of construction traffic. Based on information developed as part of the project's air quality analysis, project-related traffic would include workers commuting to and from the project site as well as vendor and haul trucks bringing or removing materials. The highest number of average daily worker trips would be 14 trips, occurring during the demolition phase. The highest number of average daily vendor truck trips would be 2 trips, occurring during the site preparation, grading, trenching and utilities phases. The highest number of total haul trips for any construction phase is estimated to be 438 trips, during the grading phase. The grading phase is estimated to occur over a 4 working day period, resulting in an average of approximately 110 haul trucks per day, or approximately 14 truck trips per hour over an 8-hour workday. The likely route for these project-related truck trips would be to the 10 freeway via Kellogg Drive. There are no residences or other noise-sensitive land uses adjacent to Kellogg Drive along this route. Thus, it is unlikely that a noticeable increase in off-site traffic noise would occur. Traffic related to construction activities would not result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Impacts from project-related construction traffic noise would be less than significant.

On-Site Operational Noise

Because the project would not increase the number of students or faculty, and because no new mechanical sources would be added, it is not anticipated that there would be an increase in traffic volumes or other major noise sources as a result of the project. The main source of noise associated with the project is anticipated to be from individuals or small groups of people gathering in the open area created by the removal of the two buildings. However, such noise would amount to a relatively small incremental increase above similar activities already taking place in the

project vicinity and furthermore, the sound from the voices would be unamplified and would dissipate within a short distance. For this reason, no increase in operational noise is anticipated at the nearest noise-sensitive receivers and impacts from operational noise would be less than significant.

Threshold b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Construction activities that might expose persons to excessive ground-borne vibration or ground-borne noise could cause a potentially significant impact. Groundborne vibration from construction activities is typically attenuated over short distances. The heavier pieces of construction equipment used at this site could include bulldozers, excavators, loaded trucks, water trucks, and pavers.

Based on published vibration data, the anticipated heavy construction equipment would generate a vibration level of approximately 0.089 inches per second peak particle velocity (PPV) at a distance of 25 feet from the source; lighter construction equipment, such as a small bulldozer, would generate a substantially lower vibration level of approximately 0.003 inches per second PPV at a distance of 25 feet from the source.[2] At the distance from the nearest vibration-sensitive land use (a residence hall to the north) to where construction activity would be occurring on the project site (approximately 625 feet), the peak particle velocity vibration level from heavy construction equipment would be approximately 0.001 inches per second. At a distance of 150 feet, the peak particle velocity vibration level from heavy construction equipment would be approximately 0.006 inches per second. As such, vibration levels would be less than the County of Los Angeles vibration standard of perception of 0.01 inches per second, and well below the FTA's threshold for potential of architectural damage to non-engineered timber and masonry buildings of 0.20 inches per second.[3] As the project's vibration impacts would be less than the County standard for construction and would not have the potential to result in structural damage, and due to the temporary and intermittent occurrence of vibration levels during construction, vibration impacts would be considered less than significant.

Operation

The on-going operation of the project would not include the operation of any known vibration sources. Therefore, no impact would occur from operation of the project.

[2] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 7-4, page 184, 2018.

[3] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Table 7-5, page 186, 2018. Table 7-5 provides recommended vibration damage criteria for structure types ranging from quite robust ("Reinforced-concrete, steel or timber") to quite fragile ("Buildings extremely susceptible to vibration damage"). Non-engineered timber and masonry building criteria represents the category just above the most fragile category, and thus is considered conservative for the nearby residences and other structures.

Threshold c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No airstrips are located in the project vicinity. The nearest airport is Brackett Field, located approximately 3 miles northeast of the university. Based on the Los Angeles County Airport Land Use Plan (Los Angeles County Airport Land Use Commission 2004) the project Site is not located within the Airport Influence Areas of any of the airports in the region. As such, less than significant impacts from airport/aircraft noise would occur.

5 Conclusions

For all the foregoing reasons, the project would not have any significant impacts related to noise.

Mike Greene, INCE Bd. Cert
Acoustical Specialist

6 References Cited

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

Caltrans (California Department of Transportation). 2013. Technical Noise Supplement to the Caltrans Traffic Noise Analysis Protocol. Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, Paleontology Office. September 2013.

County of Los Angeles. 1978. Noise Control Ordinance of the County of Los Angeles. Municipal Code Section 12.08.

County of Los Angeles. 2011. Los Angeles County Draft 2035 General Plan. April 2011.

Dudek. 2022. Cal Poly Pomona – Classroom, Laboratory, Administration Tower Demolition and Building Renovation Project - Air Quality and Greenhouse Gas Emissions Technical Memorandum. February 2022.

FHWA (Federal Highway Administration). 2008. Roadway Construction Noise Model (RCNM), Software Version 1.1. U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. December 8, 2008.

FTA (U.S. Department of Transportation, Federal Transit Administration). 2018. Transit Noise and Vibration Impact Assessment Manual. September 2018.

Los Angeles County Airport Land Use Commission. 2004. Los Angeles County Airport Land Use Plan. 2004. http://planning.lacounty.gov/assets/upl/data/pd_alup.pdf. Accessed February 17, 2022.

Attachment A

Field Noise Measurement Data

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: CAL POLY - POMONA CLA TOWER — PROJECT #: 13800
SITE ID:
SITE ADDRESS:
OBSERVER(S): PETE VITAR
START DATE: 2/10/22 — END DATE: 2/10/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 76 F — HUMIDITY: 15 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: 3 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM-P3 — TYPE 1 2 — SERIAL # 13092704B
CALIBRATOR: TEED TR8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST ____ dBA SPL — POST-TEST ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST1) 1-16	9:54	10:09							

COMMENTS: READING TAKEN IN FRONT OF PALMITAS RESIDENCE HALL; PRIMARY NOISE SOURCE IS SOUND OF FORKLIFT OPERATING IN PARKING/STORAGE AREA OF BLDG ACROSS STREET; DISTANT CONSTRUCTION VEHICLE NOISE IS AUDIBLE; LIGHT TRAFFIC ON UNIVERSITY DR

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 100' TO C/L OF UNIVERSITY DR

TRAFFIC COUNT DURATION: 15 MIN

COUNT 1 (OR RDWY 1)	DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
	AUTOS	17			
	MED TRKS	1			
	HVY TRKS	0			
	BUSES	2			
	MOTRCLS	0			

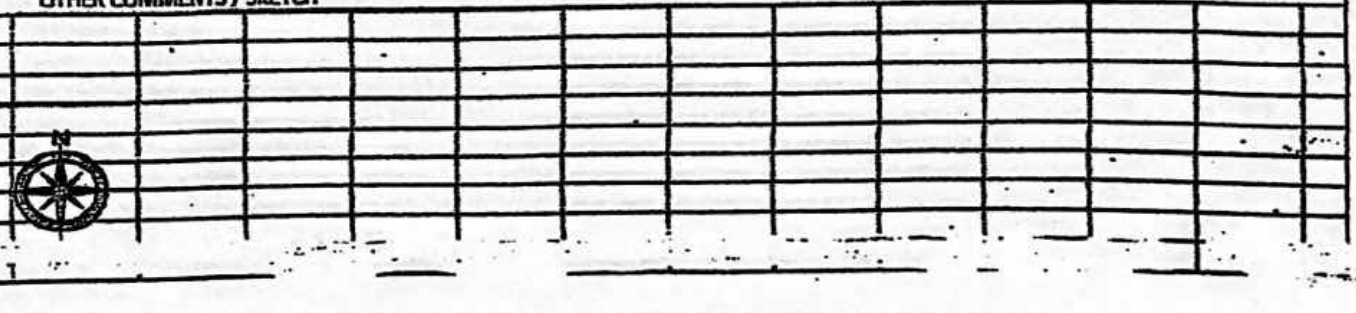
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE: ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: DISTNT VEHICLE BACKUP ALARMS;

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3456; 3457; 3461; 3462
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: CAL POLY POMONA CLA TOWER — PROJECT #: 13800
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 2/10/22 — END DATE: 2/10/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 76 F — HUMIDITY: 15 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: 3 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG — RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM-P3 — TYPE 1 2 — SERIAL # 13092704B
CALIBRATOR: REED R8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST: ____ dBA SPL — POST-TEST: ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST2) 17-32	10:16	10:31							

COMMENTS: READING TAKEN IN FRONT OF LOS CERRITOS RESIDENCE HALL; PRIMARY NOISE SOURCE IS SOUND OF DISTANT VEHICLES & BACKUP ALARMS; LIGHT TRAFFIC ON UNNAMED DR; AUDIBLE SOUND OF WATER SPLASHING FROM FOUNTAIN IN POND TO THE SOUTH;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 60' TO C/L ON UNNAMED DR
TRAFFIC COUNT DURATION: 15 MIN — SPEED ____ MIN

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	15			
MED TRKS	1			
HVY TRKS	0			
BUSES	11			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING (DIST. TRAFFIC [LIST RDWYS BELOW]) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: SOME AUDIBLE NOISE FROM TO FWY TO THE NORTH;

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3464; 3465; 3466; 3467; 3468; 3470
OTHER COMMENTS / SKETCH

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: CAL POLY - POMONA CLA TOWER — PROJECT #: 13800
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 2/10/22 — END DATE: 2/10/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 76 F — HUMIDITY: 15 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: 5 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SLM-P3 — TYPE 1 2 — SERIAL #: 130927046
CALIBRATOR: REED R8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST: ____ dBA SPL — POST-TEST: ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST3) 33-48	10:35	10:50							

COMMENTS: READING TAKEN IN FRONT OF CASA DE LAS ENCINITAS RESIDENCE HALL; PRIMARY NOISE SOURCE IS TRAFFIC ON 10 FWY TO THE NORTH;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY (C/L) OR EOP: APX 130' TO C/L ON UNIVERSITY DR
TRAFFIC COUNT DURATION: 15 MIN — ____ MIN

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2) NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
AUTOS	14								
MED TRKS	0								
HVY TRKS	0								
BUSES	3								
MOTRCLS	0								

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (UST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3474; 3475; 3476; 3477; 3478; 3479
OTHER COMMENTS / SKETCH

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: CAL POLY POMONA CLA TOWER — PROJECT #: 13800
SITE ID:
SITE ADDRESS: — OBSERVER(S): PETE VITAR
START DATE: 2/10/22 — END DATE: 2/10/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 78 F — HUMIDITY: 15 % R.H. — WIND: (CALM) LIGHT MODERATE
WINDSPD: 5 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLO SLM-P3 — TYPE 1 2 — SERIAL # 13092704
CALIBRATOR: REED R8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST: ____ dBA SPL — POST-TEST: ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(STL) 49-64	11:07	11:22							

COMMENTS: READING TAKEN IN FRONT OF CHILDCARE CENTER-116; PRIMARY NOISE SOURCE IS LANDSCAPING (RIDING MOWERS) ACROSS FROM NEAR; CHILDREN TALKING/PLAYING/CRYING IN YARD OF CHILDCARE CENTER; LIGHT TRAFFIC;

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP: APX 16' TO C/L OF EUCALYPTUS LN.
TRAFFIC COUNT DURATION: 15 MIN

COUNT 1 (OR RDWY 1)	DIRECTION	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED
	AUTOS	17			
	MED TRKS	0			
	HVY TRKS	0			
	BUSES	0			
	MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB SPEED	SB/WB SPEED

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING (DIST. CONVRSTNS / YELLING) DIST. TRAFFIC (LIST RDWYS BELOW) DIST. GARDENERS/LANDSCAPING NOISE
OTHER: AIR CONDITIONING UNIT CYCLING ON AND OFF IN CHILDCARE CENTER;

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3481; 3482; 3483; 3484; 3485
OTHER COMMENTS / SKETCH

ST1

Rec 1 to 16	Slow Response		dBA weighting		2.0 dB resc
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin
2/10/2022 9:54	1.0 min	52.5	70.3	65.7	48.3
2/10/2022 9:55	1.0 min	50.7	68.5	52.4	49.3
2/10/2022 9:56	1.0 min	50.7	68.5	57.3	48.4
2/10/2022 9:57	1.0 min	48.1	65.9	51	47
2/10/2022 9:58	1.0 min	47.8	65.6	49.9	46.6
2/10/2022 9:59	1.0 min	49.9	67.7	54.4	47.6
2/10/2022 10:00	1.0 min	51.8	69.6	55.9	47.6
2/10/2022 10:01	1.0 min	49.6	67.4	54.4	47
2/10/2022 10:02	1.0 min	50.3	68.1	60.2	46.8
2/10/2022 10:03	1.0 min	49	66.8	58.3	47.1
2/10/2022 10:04	1.0 min	47.6	65.4	48.6	46.8
2/10/2022 10:05	1.0 min	50.5	68.3	54	47.1
2/10/2022 10:06	1.0 min	48.3	66.1	53.7	46.4
2/10/2022 10:07	1.0 min	50.1	67.9	58.2	47
2/10/2022 10:08	1.0 min	50	67.8	56.3	46.8
2/10/2022 10:09	11 sec	47.5	57.9	48.2	47

L_{eq}	L_{max}	L_{min}
50.0	65.7	46.4

ST2

Rec 17 to 32	Slow Response		dBA weighting		2.0 dB resc
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin
2/10/2022 10:16	1.0 min	45.8	63.6	47.8	44.4
2/10/2022 10:17	1.0 min	52.4	70.2	63.6	44.9
2/10/2022 10:18	1.0 min	51.6	69.4	60.9	46.4
2/10/2022 10:19	1.0 min	48.9	66.7	55.8	45.7
2/10/2022 10:20	1.0 min	53.1	70.9	63.1	43.5
2/10/2022 10:21	1.0 min	48.7	66.5	54.9	43.9
2/10/2022 10:22	1.0 min	47.4	65.2	56.6	43.5
2/10/2022 10:23	1.0 min	49.8	67.6	61.8	43.4
2/10/2022 10:24	1.0 min	48.2	66	54.2	43.5
2/10/2022 10:25	1.0 min	48.7	66.5	53.9	43.6
2/10/2022 10:26	1.0 min	48.6	66.4	55.1	44
2/10/2022 10:27	1.0 min	54.5	72.3	65.1	43.7
2/10/2022 10:28	1.0 min	46.9	64.7	53.8	43
2/10/2022 10:29	1.0 min	46.5	64.3	54.4	44
2/10/2022 10:30	1.0 min	47.3	65.1	56.7	43.3
2/10/2022 10:31	14 sec	50.6	62.1	57.3	43.5

	L_{eq}	L_{max}	L_{min}
	50.0	65.1	43

ST3

Rec 33 to 48	Slow Response		dBA weighting		2.0 dB resc
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin
2/10/2022 10:35	1.0 min	50.4	68.2	56.1	45.7
2/10/2022 10:36	1.0 min	48.5	66.3	54.8	46
2/10/2022 10:37	1.0 min	48.1	65.9	51.2	46.4
2/10/2022 10:38	1.0 min	48.1	65.9	55.3	45.3
2/10/2022 10:39	1.0 min	48.9	66.7	60.8	44.6
2/10/2022 10:40	1.0 min	48.6	66.4	59.1	44.2
2/10/2022 10:41	1.0 min	46.7	64.5	48.7	45.2
2/10/2022 10:42	1.0 min	46.9	64.7	49.2	44.7
2/10/2022 10:43	1.0 min	47.3	65.1	56	44.4
2/10/2022 10:44	1.0 min	46.5	64.3	49.5	44.7
2/10/2022 10:45	1.0 min	45.9	63.7	51.4	43.6
2/10/2022 10:46	1.0 min	45.9	63.7	48	43.2
2/10/2022 10:47	1.0 min	49.8	67.6	54.5	45.3
2/10/2022 10:48	1.0 min	46.7	64.5	49.4	44.9
2/10/2022 10:49	1.0 min	47.4	65.2	55.3	43.7
2/10/2022 10:50	13 sec	49.1	60.2	54.2	46.4

L_{eq}	L_{max}	L_{min}
47.9	60.8	43.2

ST4

Rec 49 to 64	Slow Response		dBA weighting		2.0 dB resc
Date hh:mm:ss	LeqPeriod	Leq	SEL	Lmax	Lmin
2/10/2022 11:07	1.0 min	56.8	74.6	67.7	45.9
2/10/2022 11:08	1.0 min	51.7	69.5	63.9	45.6
2/10/2022 11:09	1.0 min	55.9	73.7	62.4	45.5
2/10/2022 11:10	1.0 min	57.1	74.9	67.2	51.4
2/10/2022 11:11	1.0 min	53	70.8	58.5	49
2/10/2022 11:12	1.0 min	56	73.8	60.1	48.2
2/10/2022 11:13	1.0 min	52.5	70.3	65.2	46.3
2/10/2022 11:14	1.0 min	59.2	77	68.9	49.6
2/10/2022 11:15	1.0 min	55.9	73.7	60.3	48.4
2/10/2022 11:16	1.0 min	57.9	75.7	66.6	49.5
2/10/2022 11:17	1.0 min	58.4	76.2	67.5	48.3
2/10/2022 11:18	1.0 min	56.2	74	62.4	47.1
2/10/2022 11:19	1.0 min	58.1	75.9	61.4	51.4
2/10/2022 11:20	1.0 min	56.3	74.1	59.7	52.7
2/10/2022 11:21	1.0 min	51.7	69.5	59.5	45.8
2/10/2022 11:22	6 sec	48.7	56.5	51.1	45.7

	L_{eq}	L_{max}	L_{min}
	56.3	68.9	45.5

Attachment B

Construction Noise Input/Output Data

ST1 Palmitas Res Hall

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 65

allowable hours over which Leq is to be averaged = 1

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Demolition	Dozer	1	40	82		700	0.1		53.8	1	60	50
	Concrete saw	1	20	90		750	0.1		61.1	1	60	54
	Tractor	1	40	84		800	0.1		54.5	1	60	51
	Front end loader	1	40	79		750	0.1		50.1	1	60	46
	Backhoe	1	40	78		850	0.1		47.9	1	60	44
									Total for Demolition Phase:			**57.3**
Site Preparation	Grader	1	40	85		700	0.1		56.8	1	60	53
	Front end loader	1	40	79		750	0.1		50.1	1	60	46
									Total for Site Preparation Phase:			**53.6**
Grading	Grader	1	40	85		700	0.1		56.8	1	60	53
	Front end loader	3	40	79		750	0.1		50.1	1	60	51
	Backhoe	1	40	78		800	0.1		48.5	1	60	45
									Total for Grading Phase:			**55.3**
Trenching and Utilities	Compactor (ground)	1	20	80		700	0.1		51.8	1	60	45
	Backhoe	1	40	78		750	0.1		49.1	1	60	45
									Total for Trenching and Utilities Phase:			**48.0**
Landscaping	Backhoe	1	40	78		700	0.1		49.8	1	60	46
	Tractor	1	40	84		750	0.1		55.1	1	60	51
									Total for Landscaping Phase:			**52.2**
Site Renovation	Front end loader	1	40	79		700	0.1		50.8	1	60	47
									Total for Site Renovation Phase:			**46.8**
Paving	Concrete mixer truck	1	40	79		700	0.1		50.8	1	60	47
	Concrete pump truck	1	20	81		750	0.1		52.1	1	60	45
									Total for Paving Phase:			**49.0**

ST2 Encinitas Res Hall

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 65

allowable hours over which Leq is to be averaged = 1

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Demolition	Dozer	1	40	82		625	0.1		54.9	1	60	51
	Concrete saw	1	20	90		650	0.1		62.5	1	60	56
	Tractor	1	40	84		700	0.1		55.8	1	60	52
	Front end loader	1	40	79		650	0.1		51.5	1	60	48
	Backhoe	1	40	78		750	0.1		49.1	1	60	45
									Total for Demolition Phase:			**58.6**
Site Preparation	Grader	1	40	85		625	0.1		57.9	1	60	54
	Front end loader	1	40	79		650	0.1		51.5	1	60	48
									Total for Site Preparation Phase:			**54.8**
Grading	Grader	1	40	85		625	0.1		57.9	1	60	54
	Front end loader	3	40	79		650	0.1		51.5	1	60	52
	Backhoe	1	40	78		700	0.1		49.8	1	60	46
									Total for Grading Phase:			**56.6**
Trenching and Utilities	Compactor (ground)	1	20	80		625	0.1		52.9	1	60	46
	Backhoe	1	40	78		650	0.1		50.5	1	60	47
									Total for Trenching and Utilities Phase:			**49.2**
Landscaping	Backhoe	1	40	78		625	0.1		50.9	1	60	47
	Tractor	1	40	84		650	0.1		56.5	1	60	53
									Total for Landscaping Phase:			**53.6**
Site Renovation	Front end loader	1	40	79		625	0.1		51.9	1	60	48
									Total for Site Renovation Phase:			**47.9**
Paving	Concrete mixer truck	1	40	79		625	0.1		51.9	1	60	48
	Concrete pump truck	1	20	81		650	0.1		53.5	1	60	47
									Total for Paving Phase:			**50.3**

ST3 Montecito Res Hall

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 65

allowable hours over which Leq is to be averaged = 1

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Demolition	Dozer	1	40	82		800	0.1		52.5	1	60	49
	Concrete saw	1	20	90		850	0.1		59.9	1	60	53
	Tractor	1	40	84		900	0.1		53.3	1	60	49
	Front end loader	1	40	79		850	0.1		48.9	1	60	45
	Backhoe	1	40	78		950	0.1		46.8	1	60	43
									Total for Demolition Phase:			**56.0**
Site Preparation	Grader	1	40	85		800	0.1		55.5	1	60	52
	Front end loader	1	40	79		850	0.1		48.9	1	60	45
									Total for Site Preparation Phase:			**52.4**
Grading	Grader	1	40	85		800	0.1		55.5	1	60	52
	Front end loader	3	40	79		850	0.1		48.9	1	60	50
	Backhoe	1	40	78		900	0.1		47.3	1	60	43
									Total for Grading Phase:			**54.1**
Trenching and Utilities	Compactor (ground)	1	20	80		800	0.1		50.5	1	60	43
	Backhoe	1	40	78		850	0.1		47.9	1	60	44
									Total for Trenching and Utilities Phase:			**46.7**
Landscaping	Backhoe	1	40	78		800	0.1		48.5	1	60	45
	Tractor	1	40	84		850	0.1		53.9	1	60	50
									Total for Landscaping Phase:			**51.0**
Site Renovation	Front end loader	1	40	79		800	0.1		49.5	1	60	46
									Total for Site Renovation Phase:			**45.5**
Paving	Concrete mixer truck	1	40	79		800	0.1		49.5	1	60	46
	Concrete pump truck	1	20	81		850	0.1		50.9	1	60	44
									Total for Paving Phase:			**47.8**

ST4 Child Care Center

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 65

allowable hours over which Leq is to be averaged = 1

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 1-hour Leq
Demolition	Dozer	1	40	82		1075	0.1		49.6	1	60	46
	Concrete saw	1	20	90		1100	0.1		57.4	1	60	50
	Tractor	1	40	84		1150	0.1		50.9	1	60	47
	Front end loader	1	40	79		1200	0.1		45.5	1	60	42
	Backhoe	1	40	78		1100	0.1		45.4	1	60	41
									Total for Demolition Phase:			**53.5**
Site Preparation	Grader	1	40	85		1075	0.1		52.6	1	60	49
	Front end loader	1	40	79		1100	0.1		46.4	1	60	42
									Total for Site Preparation Phase:			**49.5**
Grading	Grader	1	40	85		1075	0.1		52.6	1	60	49
	Front end loader	3	40	79		1100	0.1		46.4	1	60	47
	Backhoe	1	40	78		1150	0.1		44.9	1	60	41
									Total for Grading Phase:			**51.4**
Trenching and Utilities	Compactor (ground)	1	20	80		1075	0.1		47.6	1	60	41
	Backhoe	1	40	78		1100	0.1		45.4	1	60	41
									Total for Trenching and Utilities Phase:			**44.0**
Landscaping	Backhoe	1	40	78		1075	0.1		45.6	1	60	42
	Tractor	1	40	84		1100	0.1		51.4	1	60	47
									Total for Landscaping Phase:			**48.4**
Site Renovation	Front end loader	1	40	79		1075	0.1		46.6	1	60	43
									Total for Site Renovation Phase:			**42.6**
Paving	Concrete mixer truck	1	40	79		1075	0.1		46.6	1	60	43
	Concrete pump truck	1	20	81		1100	0.1		48.4	1	60	41
									Total for Paving Phase:			**45.0**